The SAGE Handbook of
Special Education

Second Edition

Edited by
Lani Florian

SAGE

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Editorial Advisors

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Volume 1

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About the Editor and Contributors

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CONTRIBUTORS

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Alan Dyson is Professor of Education and Co-Director of the Centre for Equity in Education in the Institute of Education at the University of Manchester, UK. His work focuses on educational equity broadly understood, including issues in inclusive education and in the relationship between social and educational disadvantage. He has served on a range of government task groups, and has led evaluative studies of national education policies in the fields of special needs education and disadvantage. Before entering universities, he spent 13 years in schools as a special needs teacher.

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Norah Frederickson is Director of the Educational Psychology Group at University College London and Senior Educational Psychologist, Buckinghamshire. Her current research interests include social development and wellbeing in children and the promotion of inclusion and belonging in schools, particularly for children with special needs and disabilities. She has published over 100 journal articles and book chapters, has co-authored leading text books on special needs for educational service professionals and students, and on educational psychology for psychology undergraduates, and has co-edited two major collections of assessment resources for use in schools: for mental health/psychological wellbeing, and for special educational needs.

Deborah J. Gallagher is Professor of Education at the University of Northern Iowa. Her research interests centre on the philosophy of science as it pertains to research, pedagogy and policy in education and special education. Among other recent publications, she is the lead author of a book entitled *Challenging Orthodoxy in Special Education: Dissenting Voices* (Love Publishing Company, 2004) with co-authors Lous Heshusius,

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Ruth Kershner is a Lecturer in Psychology of Education at the University of Cambridge, Faculty of Education. She focuses on psychological and sociocultural aspects of primary (elementary) classroom learning, teaching and communication, with particular reference to the development of inclusive pedagogy. She is interested in the development of teachers' professional learning and knowledge through their academic study, school-based research and day-to-day practice. She is also concerned with children's and teachers' personal epistemologies and the representations of these knowledge beliefs in the classroom learning environment.

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Margaret J. McLaughlin is Associate Dean for Research and Graduate Education, College of Education and Professor, Department of Special Education, University of Maryland, College Park, MD. Dr. McLaughlin began her career as a teacher of students with serious emotional disorders. She specializes in the study of special education policy and has directed numerous national research projects and centres that investigated the intersection of those policies and standards-driven reforms. She has consulted with various international agencies and organizations as well as with US educational agencies and served on or co-chaired four National Academy of Sciences Committees addressing topics related to educating students with disabilities.

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Fernanda T. Orsati is currently a PhD candidate in the Special and Inclusive Education Program in the School of Education at Syracuse University. She has published articles in journals including the *International Journal of Inclusive Education* and *Journal of Special Education Leadership*. Orsati is the Lead Graduate Assistant for the Institute on Communication and Inclusion where she works in providing communication to students and adults with developmental disabilities. She is interested in the construction of behaviour disabilities for young children in schools. Her work as a consultant also includes self-advocacy, dynamic assessment, and alternative and augmentative communication (AAC).

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Jill Porter is a Reader in the Department of Education at the University of Bath. She has received funding from the Department of Education for a series of studies developing methods for collecting information from children (as well as parents) into the experience of disabled children participating in all aspects of school life. Her research combines a 'top down' analysis of the culture of the organization with a 'bottom-up' perspective of the learner (including those with the most severe and complex difficulties) on the barriers to learning.

Justin J. W. Powell is Professor of Sociology of Education at the University of Luxembourg. His comparative institutional analyses of educational systems explain persistence and change in special and inclusive education, in vocational training and higher education, and in science and research funding. His publications include *Barriers to Inclusion: Special Education in the United States and Germany* (Boulder, CO: Paradigm, 2011) and *Comparing Special Education: Origins to Contemporary Paradoxes*, written with John G. Richardson (Stanford University Press, 2011), which received the 2012 Outstanding Book Award of the American Educational Research Association, Division B.

Selma Powell graduated with her PhD from the University of Central Florida. Her dissertation topic of research focused on developmentally appropriate use of mathematics apps for iPads in early childhood classrooms. She was recognized by the Council for Exceptional Children, Division of Early Childhood, as the J. David Sexton Doctoral Student Award recipient for her contributions to children and families. Selma Powell has published multiple articles and presented at national and state conferences. She is the editorial assistant of *Teaching Exceptional Children*. Currently she is the project director for a US$10 million Race to the Top Grant at the university.

Marleen Pugach is Professor at the University of Southern California. Her expertise focuses on the reform of teacher education at the intersection of general and special education. Pugach has authored numerous articles on this topic, and is author of *Because Teaching Matters*, co-author of *Collaborative Practitioners, Collaborative Schools*, and co-editor of *Teacher Education in Transition: Collaborative Programs to Prepare General and Special Educators*. She has been a Fulbright Scholar, and her research contributions have been recognized by the American Association of Colleges for Teacher Education and the Teacher Education Division of the International Council for Exceptional Children.

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Jonathan Rix is Senior Lecturer in Inclusion, Curriculum and Learning at the Open University in the UK. His research interests focus upon: policies, practices and language associated with inclusion; capturing diverse perspectives; and developing models to facilitate our thinking about the form and function of education. He has a particular personal and professional interest in issues relating to learning difficulties. With Kieron Sheehy, he has led both a 3-year systematic review of pedagogies that effectively include children with special educational needs and a review of policies and practices related to special education across 50 nations.

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Preface

The first edition of *The SAGE Handbook of Special Education* (2007) located its starting point in the debate about the nature and purpose of special education that became dominant in the 1980s in response to sociological critiques of special education, and the emergence of inclusive education as an alternative. Significantly, the *Handbook* focused on special education as a form of provision and an area of research rather than on categories of disability or learning difficulties. A review of the *Handbook* in the *Journal of Cognitive Education and Psychology* noted:

> Probably the most remarkable thing about this Handbook is that most topics discussed in it would have been almost unimaginable 20 years ago. While the standard accounts of special education focus on how to identify special needs students and provide educational services appropriate for their deficiencies, the Handbook offers a range of views on how to empower all learners to transcend their current performance and go 'beyond the limits.' The concept of transformability that a couple of decades ago was perceived as something of an oddity in psycho-educational literature, has nowadays a central place in the Handbook discourse. (Kozulin, 2008, p. 288)

This second edition continues and extends this project. Constructive criticisms provided by nine anonymous field reviewers from around the world generated a list of topics to include in the second edition. This was followed by a broad trawl of relevant education journals (2006–2010) to identify recent additions to the literature not previously considered. International policy documents, notably the 2006 United Nations Convention on the Rights of Persons with Disabilities and the reports of the 2008 International Congress on Education, '*Inclusive Education: the way of the future*', and other grey literature on the education of people with disabilities were reviewed. This process provided a comprehensive foundation for the second edition. Many authors were invited to update chapters and prominent new authors were selected to reflect current scholarship consistent with the distinctive non-categorical approach taken by the book. The range of contributors from the non-English speaking world was expanded, as was the coverage of developments in other world regions. Each chapter was anonymously peer-reviewed by at least one colleague from outside the author's country. This was undertaken to enhance the rigour of the peer review process and to ensure the book's relevance to a wide international audience.

As with the first edition of the *Handbook,* this two-volume second edition is intended as a source book of information and ideas about special education. It aims to reflect advances in research on learning and teaching in the foundation disciplines as well as renewed calls for engagement with the moral purpose of education and its supporting philosophical ideas. To this end, the book makes a number of demands on the reader as the authors start from different national and theoretical perspectives. The book does not attempt to provide a comparative analysis but includes new chapters that explore special needs education and the development of inclusive education from non-Western and non-English speaking perspectives.

In keeping with the theme of empowering *learners to transcend their current performance and go 'beyond the limits'*, the contributors to this edition all share a commitment to improving educational and social outcomes for students with disabilities and those who experience difficulties in learning or are marginalized in education. Implicit in their contributions are a range of views and a theoretical diversity that collectively map the field and address the problems and challenges faced by those who are concerned with educational access and equity for everyone.

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Acknowledgements

A book such as this would not be possible without the support and involvement of many people and I am indebted to them all. Marianne Lagrange of SAGE Publications persuaded me to undertake a second edition and for that I am thankful. I am especially appreciative of the extensive feedback from anonymous field reviewers of the first edition the *Handbook* that initiated the second edition.

I am in awe of the many contributors who have provided such fine chapters for the book. They have worked tirelessly to respond to reviewers' comments and my many queries. Their talents as teachers, researchers, and authors deserve the greatest respect. An outstanding team of Editorial Advisors helped to ensure that the book achieved the coverage and depth required by the many topics I wanted to address. From the outset of this project, both the contributors and advisors have been incredibly generous in sharing their expertise and I am indebted to them all. To the extent that the book provides a useful resource to the field, the credit is due to their contributions but the responsibility for any omissions or errors is mine alone.

Particular thanks are due to Seamus Hegarty who read the book in draft form and helped me to think through some key editorial decisions. Cristina Devecchi also read a draft of the text and prepared the glossary. John Ravenscroft helped to ensure that the cover design was accessible to readers with visual impairments. Lorna Thomson and Fannie Kong provided excellent clerical support at different times and Caroline Maloney was outstandingly assiduous in helping to put the final manuscript together.

I am obliged to the many amiable colleagues who have put up with my obsession and thankful for the many friends who indulged it. My family continues to be a source of sustenance for which I am deeply grateful. Most of all, I remain full of admiration for my partner, Martyn Rouse and his openhearted forbearance and unflappable wit, without which I would never have completed this book.

Endorsements

'This new edition of a well-established handbook provides a wide-ranging and stimulating overview of the special educational needs field. It is a mine of information and challenging ideas. It is particularly timely as the UK legislation is being substantially revised – but the ideas are relevant beyond national boundaries.'

Professor Geoff Lindsay, Director, Centre for Educational Development, Appraisal and Research (CEDAR), University of Warwick, UK

'Since the 1994 Salamanca Declaration the world of special education has undergone a revolution, with commitments to the integration of children with special needs into mainstream schools and, later, a critical reflection on the extent to which those institutions themselves were inclusive. This book marks the possibility of another significant moment of change, perhaps best represented as a challenge to the 'normal curve' assumptions of schooling. The new paradigm seeks to include everyone in the learning community of the classroom, even while recognising that all have individual differences that need to be accommodated: the key change lies in the starting assumption that all belong, not that some have to be 'fitted in'. If this is to be realised it will require new practices, new pedagogy, but most of all, entirely new conceptualisations about the nature of schools and schooling. The chapters in this book provide the roadmap for this revolution in our thinking and practice.'

Tony Gallagher, Professor of Education and Pro-Vice-Chancellor, Queen's University Belfast

'We live in difficult times. The economic crisis severely affects people's lives, attitudes and educational opportunities. In this context, educational and social inclusion is a real challenge. This stunning book appears at the right time: we need a new perspective to open our minds and develop our competences in order to achieve a new education for all. We need to promote knowledge and pedagogy, and ensure trust and hope. If you are looking for something like that, this is your book.'

Álvaro Marchesi, Secretary General of the Organisation of Ibero-American States For Education

Introduction

Today, there is a growing recognition that the field of special education must change in response to 21st-century concerns about what it means to provide an education for students who have been identified as having special educational needs and disabilities (Eisenman & Feretti, 2010; Warnock, Norwich, & Terzi, 2010). Throughout many parts of the world, the field has been challenged by a sustained critique that clearly locates the problem of special education in the broader structure of education. This second edition of the *Handbook* is based on the view that although certain structural features of schools can create special educational needs, 'this is the case only when what is generally available to most students does not appear to work in particular cases' (Florian & Kershner, 2009, p. 173). By focusing on extending the quality of what is generally available to an increasing range of students, and developing new ways of working collaboratively with colleagues in mainstream, special education can help meet the demand for better quality educational provision for everyone.

This is an important but subtle change in focus for the field that places an emphasis on developing practice in schools. While this is not meant to ignore specialist knowledge or provision in specialist facilities, the position here is that a focus on learning and teaching matters more than debates about where that teaching occurs. Mainstream schools are where most students with disabilities in the developing world are educated, and from where most students with disabilities in the developing world and countries in transition are excluded, despite national and international policy frameworks that support rights-based education for everyone.

Moreover, the pervasive variability in the quality of educational support for student with disabilities even within developed countries is too wide and too commonplace. As a recent report in England found, although many students with disabilities are well-supported and making good progress in school, too many others had a different experience. As the report argued, 'the crucial issue is that both experiences happen within the same system' (DCSF, 2009, p. 2). Reducing the variability in practice – both between countries in terms of access to education, and within countries as a matter of equity, are key challenges that point to new directions for research and practice.

While the first edition of the *Handbook* sought to present a range of perspectives about the nature and purpose of special education, this two-volume second edition focuses more explicitly on a reconceptualization of special education and notions of special educational needs. It argues that while special education alone will not change the organizational context of schools to which it is so inextricably bound, it can set new standards by which it can be held to account based on the core values of equal opportunity, respect for human dignity, and a belief in the capacity of all people to learn. It can also do more to avoid the problems associated with marking some students as different. This is discussed more fully in Chapter 1.

This two-volume second edition retains the five-part structure of the first edition, revising and replacing content on some topics and adding content on others. As with the first edition, the terms special education and special needs education are used interchangeably to mean 'educational intervention and support to address special educational needs' (UNESCO, 1997). Volume I includes three sections that draw upon different

disciplinary perspectives and research traditions to explore how special educational needs are constructed and understood as well as how knowledge for the field is produced. The second volume focuses on issues of teaching and learning, and future directions for the field. Each volume contains the complete table of contents but the glossary and index appear only at the end of the second volume.

VOLUME I

HOW SPECIAL EDUCATIONAL NEEDS ARE UNDERSTOOD

This section considers how special educational needs are understood from historical, sociological, psycho-educational and critical perspectives. Although the emphasis is on developments in the English-speaking world, the chapters review the evolving concept of special educational needs, and consider how these are shaped by cultural beliefs that are construed differently at different points in time.

Understanding what constitutes a special educational need is not a straightforward task. Norwich provides a review and critique of categorical approaches to special education. He asks if categories have outlived their usefulness and considers the pros and cons of emerging classification systems. This is of particular relevance when considered alongside Harry's analysis of how institutional racism reverberates in educational placement of ethnic minorities in special education provision. Her chapter focuses on the situation in the United States, but the problem of overrepresentation is also made by others in other sections of the book; notably Nes calls attention to the overrepresentation of Roma students in special education in Europe.

THE CHALLENGE OF INCLUSION

The second section of the *Handbook* considers notions of disability rights in education, inclusion and inclusive education as a model for meeting educational needs. Rioux takes up the issue of rights in education. Through an analysis of key education cases that have come before the courts, she critiques the arguments in support of segregating children in education and identifies what she calls the myths that deny inclusion. Other chapters provide an in-depth analysis of equity issues in education and consider some of the responses that can be made to address these. Pijl considers how special education funding can support inclusive education.

Inclusive education is increasingly understood in the context of 'Education for All', or EFA, an international movement promoting universal access to basic education for everyone. Opertti, Walker and Zhang give an account of this international movement and the evolving concept of inclusive education. They provide an analysis of in the issues and challenges faced by six world regions; Africa, the Arab States, Asia-Pacific, the Commonwealth of Independent States (CIS), Europe and Latin America. Two further chapters discuss developments in China and India, both countries with populations of over 1 billion people.

KNOWLEDGE PRODUCTION

In keeping with the guiding principles about the content of this volume, this section focuses on theoretical positions and ideas that support and articulate these principles. Some of the most contentious material in the book is included in this section. Thomas critiques the kind of scientific inquiry that underpins much

traditional special education knowledge but other contributors make different arguments. Odom and Lane focus explicitly on the contributions that quantitative research methodologies used in special education can make.

Ridley and Watts introduce Amartya Sen's capability approach and provide a compelling example of how it can be applied in special needs education. The usefulness of the capability approach to empower people with severe disabilities to live lives they have reason to value is a welcome example of the kind of reimagination of special education that merits further research. Similarly, Black-Hawkins presents a useful framework for developing deeper understandings of the complex task of inclusive education.

While some might argue that behavioural and sociocultural views of learning are incompatible, they both reject the view that learning capacity is fixed. Entire chapters are given to these two perspectives on learning because of their implicit rejection of determinist views of ability, and because they do not rely on medical-categories of disability for coherence. Goswami's chapter on educational neuroscience provides a much needed overview of current developments in this area of research, along with associated theoretical ideas about learning and their future implications for educational interventions, particularly for learners who struggle with learning to read. While readers will form their own views about the value of each of these perspectives, all make important contributions to understanding the difficulties learners encounter and as such deserve careful consideration.

VOLUME II

TEACHING AND LEARNING

Significantly, this renamed section of the *Handbook* has been expanded to include new chapters on pedagogy. It leads with Hart and Drummond's revised chapter exploring work of classroom teachers who reject ability labelling, and is followed by an international review on specialist pedagogy, a chapter on universal design for learning (UDL) and a chapter focused specifically on meeting the needs of children with severe intellectual disabilities.

The section contains a six-chapter subsection on assessment, with important new chapters on formative and summative assessment to supplement the revised and updated chapters on self-assessment and assessment accommodations. In addition, revised chapters specific to each of the four main phases (early years, elementary, secondary and postsecondary) are included in a separate subsection. As in the first edition, these chapters are all located in the same national context. While they are not intended to be read as an endorsement of any one model of provision, because so much research in special education is undertaken in the United States and exported elsewhere, it is useful to foreground this work in an understanding of special education as it is has developed there. A final subsection on cross-phase issues contains extensive coverage of technology as well as new chapters on interagency work and families to supplement the revised chapter on friendships between children with and without difficulties in learning.

FUTURE DIRECTIONS FOR RESEARCH AND PRACTICE

The final section of the *Handbook* considers some areas for change raised by many of the contributors. It also

considers change that has *not* occurred. A chapter on personhood and cognitive disability serves as important reminder of the broader context in which people with severe and profound disabilities and their families continue to be assaulted by the indignity of being seen as morally inferior beings. While it acknowledges the progress that has been made since the days of eugenics, it calls attention to the disturbing implications of extending moral status to nonhuman animals on the grounds of cognitive ability. As ideas about the post-human world become more widespread, there is scope to reconsider some of the most basic principles of humanity and the role that education plays in fostering them. Interestingly, the chapter on medicalization in schools raises a similar point about basic principles of humanity with implications for research and practice.

Gallagher's updated analysis of the debates within the field of special education provide an account of some promising shifts in thinking that are occurring away from polarising debates towards new understandings. Three chapters on professional knowledge and the opportunities that now exist, not only to enrich its development, but also reform its content are included in this section. Two further chapters outline important topics for the future: the effects of the relentless drive of standards-based reform as a strategy to improve performance outcomes, and the contribution that special education can make to education more generally.

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How Special Educational Needs are Understood

1

Reimagining Special Education: Why New Approaches are Needed

Lani Florian

> … it is arguable that while Special Educational Needs are often located on the fringes of education, it is in this location at the boundary that Special Educational Needs acts to define and ensure the continuity of education's normative centre. (Youdell, 2006, p. 22)

INTRODUCTION

As a parallel system of education to that which is provided to the majority of children, special education occupies contested terrain. In countries without a system of special needs education, little educational provision is available to disabled children (Peters, 2007). Yet where systems of special education do exist, there are problems. For example, in many parts of the world, students from minority groups are more likely to be identified as having special educational needs than are others (e.g. Blanchett, Klinger, & Harry, 2009; Fredman, Kriglerová, Kubánová, & Slosiarik, 2009). This leads to a situation where placement in special education offers access to education for some, but perpetuates discrimination for others. Special education's policy framework, which is intended to ensure the right to education for those who would otherwise be excluded from schooling, has paradoxically created problems of inequality within education.

Yet, without a policy framework to guide provision of specialist support and resource allocation, many people with disabilities would be denied an opportunity for meaningful participation in the activities that typify everyday because impairment, by definition, is something that limits functioning, unless it is mediated in some way. This dilemma has been acknowledged in the special education literature (Artiles, 1998; Dyson, 2001; Norwich, 2008) and has been the subject of intense debate about whether special education itself is a problem of, or the solution to, issues of social justice in education.

This chapter, and indeed this book, focuses on the role that special education can play in disrupting education's normative centre in support of improving education for all. The central argument is that those who work in, on, or at the boundaries of special education, whether they identify themselves as special educators, disability advocates, inclusionists, critical special educators or disability studies scholars, can do more to address its core problems and dilemmas, but doing so will require some shifts in thinking. As the chapters in this book discuss, the many contributions that special education has made to the broader context of education are not disputed, but the problems and unintended consequences associated with it, including difficulties with identification and classification of disability, differential schooling outcomes, differential treatment based on social class, remain deeply disquieting.

This chapter presents an overview of current international understandings of special education, and special educational needs, along with two key policies that specify the context for these understandings. Each section identifies a problem that points to why new approaches to future work in the field are needed. The second part of the chapter outlines one of the shifts in thinking believed to open up new possibilities for future work

and presents one such possibility. Other chapters in the book highlight further shifts in thinking and practice both inside and outside of schooling that collectively have the potential to move the field forward.

Definition of special (needs) education

In 1997, the International Standard Classi fication of Education replaced the term special education with *special needs education* in order to differentiate it from earlier international definitions of special education as that which took place in special schools or institutions (Organisation for Economic Co-operation and Development [OECD], 2005). This was an important change in terminology that differentiated the provision of special education services, which can occur in a variety of settings, from the placement of children in special education schools or classrooms and enabled more accurate data to be collected.

Special needs education is defined as 'educational intervention and support designed to address special educational needs', wherever that intervention takes place. Whether the term special education, special needs education or something else is used (e.g. Scotland uses the term 'additional support for learning'), there is a common understanding that it involves something 'different from' or 'additional to' that which is generally available to others of similar age in schools. This is the first problem. That is, definitions of special education and special needs education throughout the world, including Scotland's definition of 'additional support', are based on the notion that what schooling systems ordinarily provide, will meet the needs of most learners, while a few, *at the tail ends of a normal distribution*, may require something additional or different. In this way, special education is positioned alongside the *ideal* place where schooling occurs – its normative centre – and it is in this location that it affirms the 'bell-curve thinking' (Fendler & Muzaffar, 2008; Hart, 1998; Thomas & Loxley, 2001) that both gives rise to it and defines it as an entity. 'Bell-curve thinking' is the term used by Fendler and Muzaffar to refer to the widespread acceptance in education of the assumption that most phenomena (e.g. intelligence, ability, performance) can be distributed according to the statistical principles of the normal curve.

Defining special educational needs

The concept of special educational needs is broad, extending beyond categories of disability, to include all children who are in need of additional support. However, many countries use categorical descriptions of disability to determine eligibility for special education provision, though these categories vary across time and between jurisdictions. Even in countries that do not use categorical descriptors, some process of classification remains in place because in providing for all children, some way of determining 'all' has to be established. Specifying particular groups of learners as a way of determining 'all' is problematic because the many sources of variation within and between any identified groups raise questions about their educational relevance. The 'triad of impairments' associated with autistic spectrum disorder (ASD), for example, describes a condition that covers many different individuals, levels of functioning and skill, despite the common feature of impairments affecting social interaction, communication and imagination. In addition, when students are classified as needing something different or additional to others of similar age, they can become marginalized within education by virtue of these 'additional needs'. The second problem is how to make educational

provision available to 'all' without the stigma of marking 'some' children as different.

Education for all?

Through the auspices of the United Nations (UN) agencies, countries are urged to provide for the basic learning needs of all people, both children and adults, because education is seen as a human right with intrinsic value, as well as a means of achieving other important rights, such as development rights which are intended to reduce poverty and promote prosperity. Concern for the education of students with disabilities has been linked with these efforts through the United Nations Educational, Scientific and Cultural Organization's (UNESCO) 'Education for All' (EFA) movement. Following the 1994 World Conference on Special Needs Education in Salamanca, Spain, which recognized that all children should be educated within an inclusive education system, the *Salamanca Statement and Framework for Action on Special Needs Education* (UNESCO, 1994) stipulated that: 'a child with a disability should attend the neighbourhood school that would be attended if the child did not have a disability' (p. 17). This was a significant development because the legislative framework in many countries continues to exclude or restrict access for children with disabilities to the general education system even where education is compulsory and free.

More recently, the UN Convention on the Rights of Persons with Disabilities (UNCRPD) has affirmed the rights-based nature of inclusive education by specifying that States shall ensure 'an inclusive education system at all levels' so that 'persons with disabilities receive the support required, within the general education system, to facilitate their effective education' (United Nations [UN], 2006, Article 24 §1). Clearly, the availability of specialized support is seen as an important aspect of inclusive education. But there are questions about how this support can be provided without positioning special education at the boundary of education's normative centre. While these are important questions, they also shift the gaze away from the failure of the 'mainstream', the ideal place, the normative centre, to provide for everyone. This is the third problem.

WHY NEW APPROACHES ARE NEEDED

Is the paradoxical nature of special education an inevitable feature of its location at the boundary of education's normative centre, or can the work of schooling children who have disabilities, or experience difficulties in learning, be reconsidered in ways that make new approaches possible? The three problems identified above: special education as something 'different from' or 'additional to' that which is provided to others of similar age; questions about how to make educational provision available to *all* learners, without marking some learners as different; and the failure of the mainstream to provide for everyone, are further complicated by two intersecting constructs that make it difficult to answer this question. These are difference discourse and the idea of normal.

Difference discourse

Difference discourse is a term used by Ford (2005) to describe a set of interconnected beliefs, conversations and practices that are mutually reinforcing and socially pervasive. Though he uses the term in an analysis of the concept of racial culture, he points out that it is applicable to other social classifications and identities. For example, many disabled activists and scholars argue for a concept of disability culture, a kind of identity

politics that seeks to challenge representations of disability as deviant, grotesque or otherwise impoverished (e.g. Mitchell & Snyder, 2000). This is important work that serves to uncover and expose the deeply held belief that disability is tragic, because it is abnormal. The problem is that although this discourse helpfully brings questions about what is normal to the fore, it also unwittingly affirms the concept of normalcy. While those who argue for a positive concept of disability culture seek to change the difference discourse, Ford's work suggests that by virtue of engaging with what it sets out to critique, difference discourse inevitably serves as a form of collusion with the status quo. As a result, it might alter, but will not resolve, the problems of marginalization and discrimination faced by those who are marked out in some way as different. In other words, changing the language of special education, long thought to be an important strategy in changing special education (e.g. Corbett, 1996) is insufficient for changing practice.

The idea of normal

It has been noted (Nussbaum, 2004) that with respect to disability, the idea of normal is linked to two very different notions: statistical frequency (usual and unusual) and a normative conception of good or bad (proper and improper, or appropriate and inappropriate). Nussbaum questioned why these ideas were linked when there are so many examples of things that are common and typical that may not be good, and things that are unusual that are good. Her answer was that normal is a construction that permits people to protect themselves from the imperfections about which they feel the deepest shame. If this is the case, then no matter what educational rights special education protects, or what it achieves for individuals, it can never really be 'good' because as long as it remains focused on what is different, 'normal' can be defended as an appropriate standard, just as the critique of difference discourse suggests.

If this is the case, can the work of special education ever be more than a Faustian pact with education's normative centre? How can special education become an integral rather than marginal part of a school's response when students experience difficulties? These are not new questions. They are of longstanding concern to all who have been disturbed by the injustices of schooling and they are addressed by many of the contributors to this book. But the intractable nature of the problems of special education implies that new approaches to solving these problems are needed. In the previous edition, I suggested that:

> … three things, clearer thinking about the fulfilment of the right to education, the challenge to deterministic beliefs about ability, and a shift in focus from differences among learners, to learning for all, set an agenda for special needs education that can change the nature of what special education is and might become in the future. (Florian, 2007, p. 18)

The sections that follow extend this speculation and suggest that addressing these directly can mitigate some of the negative effects of the structural problems associated with special education as form of provision.

What do we mean when we talk about educational rights?

Education is defined as a universal right by Article 26 of the United Nations Universal Declaration of Human Rights (UN, 1948). As such, it is commonly invoked for the purposes of establishing standards for the right to education and for human rights in education. Thus education is both a human right and a means of achieving human rights. As the concept of human rights has evolved, education has also come to be seen as a

development right (Gearon, 2003), and as an economic, social and cultural right (Tomasevski, 2001).

Though there is great philosophical promise in a rights-based concept of education, it is important to note that the right to education is situated within its broader purposes, notably economic prosperity and development, as well as citizenship and the exercise of various freedoms. In today's world, the curriculum is driven by international competition that places a premium on the skills thought to produce economic advantage. The principles of the marketplace have produced an emphasis in education on high standards and competition. While the stated aim of these policies is to improve standards for everyone, competition between students, schools and jurisdictions produce league tables that rank order, the top students (standardized achievement tests), the best schools (school inspections), and the highest performing jurisdictions (international comparison tests of student performance by country). Student performance assessments, based on the statistical assumptions of a normal distribution (bell-curve) affirm education's normative centre as its ideal place where most students do well. But to maintain this centre, boundaries are needed to define performance standards, which in turn determine curricular offerings and organize learning opportunities.

Outside of these boundaries, special education offers something different to that which is more generally available in the normative centre, but the idea that rights-based special education policies would serve to fulfil educational rights for those with disabilities and others outside of the normative centre has been only partially realized. In an education system dominated by bell-curve thinking, identification of 'special educational needs' has been shown to lower a teacher's expectations about what is possible for a student to achieve (e.g. Hart, 1996). Here, the right *to* education may be achieved, but rights *in* education are limited by the inequities imposed by bell-curve thinking and the subsequent restricted opportunities to learn. This distinction makes it possible to see how special education can be both a strategy to achieve educational rights by securing access, and at the same time, one that denies educational rights by placing limits on the possibilities for learning that are inherent in systems of schooling organized in terms of a normative centre underpinned by deterministic beliefs about ability which are assumed to be normally distributed.

The challenge of deterministic beliefs about ability: the problem with 'normal' is 'most and some'

As noted above, schools are organized by grouping students in education's normative centre based on a utilitarian principle of the greatest good for the greatest number (e.g. according to bell-shaped statistical norms of ability, where what is average is normal) and other commonly agreed categories such as age. In this way, what is ordinarily provided will meet the needs of most learners, while a few at the tail ends of the bell-shaped distribution, may require something additional to or different from that which is ordinarily available.

This is not to suggest that individual differences are unimportant. Two students may be experiencing what appear to be similar difficulties in learning but differences between the students (e.g. a learner with English as a second language and a learner with Down Syndrome) means that the nature of the misunderstanding is different in each case, necessitating different responses to the difficulty. Indeed, knowledge about many kinds of human difference is important. However, just as a student who is an English-language learner is different from a student with Down Syndrome; a 6-year-old is different from a 16-year-old, and so forth. In many ways, teachers are responding constantly to individual differences between learners. They know that every classroom contains diverse student groups and they take account of all kinds of difference in their daily

practice. The point is, they do this work in the normative centre for 'most' students, but not for everybody. Some students, often those with disabilities or learning difficulties, continue to be marginalized within the classroom by interventions that are determined for them by others on the basis of a judgement about what they cannot do.

The shift in focus from differences among learners to learning for all: A problem of individualization

The presumption that certain individuals need something different or additional to that which is provided to others of similar age has had profound implications for the development of special education interventions. The idea that individual interventions and individualized education plans can and should be matched to individual needs remains popular in policy and practice in many countries. Individualized education is a hallmark of special needs education and it is a central feature of rights-based education.

In practice however, the focus of the teaching is on learning as a shared activity within the classroom community. Class teachers often use strategies that are matched to the purposes of learning for groups, and as noted above, they respond to differences on the basis of their knowledge of individuals within their classrooms. However, when a student is identified as having a disability, or a special educational need, the presumption of individual need means that many class teachers feel unprepared to meet the additional needs of 'some' students. Indeed, teachers often resist the placement of students identified as having special educational needs in their classrooms on the grounds that they are not qualified to teach them. Moreover, many specialists agree that this is the case. The conventional wisdom that different kinds of difficulties in learning require specific responses based upon knowledge of the difficulty remains popular despite the lack of evidence for this position. The following example from a colleague with dyslexia shows how this can be a barrier to learning.

Text to speech software is often recommended by experts as useful for pupils diagnosed with dyslexia and having struggled for many years with reading and writing, I was advised that text to speech software would help me … I found the main difficulty with text to speech software was its adaptability to context specific tasks, particularly tasks involving collaboration with others. In a shared office headphones are a must in order to not disturb colleagues. Also, having the text on the screen read aloud did not help me to understand the text any better. With the text being highlighted on the screen, I found myself following the words and not the dialogue. By the end of a paragraph, I was able to recall what words had been spoken, but not the message being conveyed.

Furthermore, it was in working collaboratively with colleagues where such tools provided the greatest challenge because of the way the tool determines how reading and writing tasks should be carried out. I was not able to participate in writing activities that involved creating a piece of writing together in meetings to talk about reports. Whilst I would say the tool sometimes helped me to learn and verbalize specialized vocabulary, it did not help my reading and writing. Consequently, I do not use such tools.

This is an important example that demonstrates how an assistive technology device served as a barrier to participation rather than an enhancement. In considering this example, a number of issues are raised. One is that the device did not serve its intended purpose. It did not become the 'cognitive prosthesis' promised by the

technology. Not only was the device unhelpful, it actually functioned to exclude my colleague further from working collaboratively within his team. It is easy to see how such examples can occur in school settings where the focus is on planning for individual needs.

A second issue is raised by the assumptions that are made about learners and individual needs when individualized interventions are recommended. Often the idea of matching a specific difficulty in learning to a strategy drives the decision-making. However, when an intervention is based solely on an individualized (or personalized) response to impairment, or a specific difficulty in learning, important contextual requirements may be overlooked, exacerbating the problem of 'most' and 'some' discussed above. As was seen in the case example, a text to speech assistive technology device intended to support individuals with dyslexia interfered with, rather than supported, my colleague in completing professional reading and writing tasks. As his story shows, focusing on individual difficulty (*having struggled for many years with reading and writing, I was advised that text to speech software would help me*), rather than the demands of the task (*creating a piece of writing together*) did not lead to meaningful engagement with the professional task. If this case were approached from the requirement of writing a report together rather than on generalized assumptions about the difficulty of one of the individual's undertaking it, a different and ultimately more productive course of action may have been possible.

Thinking about learning as a shared activity, where a single lesson is a different experience for each participant, encourages a shift in thinking away from teaching approaches that work for *most* learners existing alongside something 'additional' or 'different' for those (*some*) who experience difficulties, towards one that involves providing rich learning opportunities that are sufficiently made available for *everyone*, so that all learners are able to participate in classroom life. It is the ways that teachers respond to individual differences during whole-class teaching, the choices they make about group work and how they utilize specialist knowledge that matters. The shift in thinking is about how to extend what is generally available to ensure that everyone has the opportunity for meaningful engagement in the learning community of the classroom. This is discussed more fully below.

A SHIFT IN THINKING FROM 'MOST AND SOME' TO EVERYBODY

A shift in thinking away from the idea of special education as a specialized response to individual difficulty, towards one that focuses on extending what is ordinarily available to everyone in the learning community of the classroom, while acknowledging there will be individual differences, represents a subtle difference with profound implications for special education practice. Supporting class teachers to extend what is generally available to *everybody* rather than including *all* students by differentiating for *some,* is an important shift in thinking that can avoid the negative effects of treating some students as different. While it is not the only shift in thinking required to change special education's relationship with education's normative centre, it is an important addition that opens up new possibilities for the development of inclusive practice that can help to reduce variability in provision. If taken seriously, it can transform the role that special education can play, in aligning its practices more closely to its core values of equal opportunity, respect for human dignity, and a belief in the capacity of all people to learn. These values are consistent with the international EFA movement, and a social justice agenda for education.

Focusing on how class teachers extend what is ordinarily available in a classroom lesson or activity, offers an alternative perspective that has emerged from the study of the craft knowledge of classroom teachers committed to the principles of inclusive education that tried to capture the complexity and demands of their practice (Florian & Black-Hawkins, 2011; Florian & Linklater, 2010; Florian & Spratt, 2013). It has been shown that teachers who are adept at embedding responsiveness to individual need within the process of whole-class teaching are able to sustain inclusive practice (Jordan, Schwartz & McGhee-Richmond, 2009; Jordan & Stanovich, 1998). Following Huberman (1992), we were interested learning more about how classroom teachers go about 'tinkering' in their classrooms to expand their repertoire of responses to the difficulties students encounter in learning. We found that embedding responsiveness to individual need within the process of whole-class teaching foregrounded the importance of participation in classroom activities in terms of choice and relationships to others. For example, rather than setting work for students based on teacher judgement, a teacher might make a range of differentiated lesson options, based on knowledge of the range of interests, previous experiences, needs and abilities of everyone, available to the whole class. By giving everyone a choice, individual needs were met without pre-determining who could or would do what. We have described this as inclusive pedagogy, or the inclusive pedagogical approach. While it is broadly similar to universal design for learning (UDL), it varies in the extent to which it engages students in directing the course of their own learning and encourages teachers to abandon practices that pre-determine what students can achieve.

Table 1.1   Evidencing inclusive pedagogy

Assumptions	Associated Concepts/Actions	Key Challenges	Evidence (What to look for in practice)
1. Difference is accounted for as an essential aspect of human development in any conceptualisation of learning	Replacing deterministic views of ability with those that view learning potential as open-ended Acceptance that differences are part of human condition Rejecting idea that the presence of some will hold back the progress of others Believing that all children can make progress	'Bell-curve thinking' and notions of fixed ability still underpin the structure of schooling	Teaching practices which include *all* children (everybody) • Creating environments for learning with opportunities that are sufficiently made available for *everyone*, so that all learners are able to participate in classroom life; • Extending what is ordinarily available for *all* learners (creating a rich learning community) rather than using teaching and learning strategies that are suitable for *most* alongside something 'additional' or 'different' for *some* who experience difficulties; • Differentiation achieved through choice of activity for everyone. Rejection of ability grouping as main or sole organisation of working groups Use of language which expresses the value of all children Focusing teaching and learning on what children can do rather than what they cannot Social constructivist approaches, e.g. providing opportunities for children to co-construct knowledge (participation) Interdependence between teachers and learners to create new knowledge, which in turn links to notions of participation Use of formative assessment to support learning

Assumptions	Associated Concepts/Actions	Key Challenges	Evidence (What to look for in practice)
2. Teachers must believe they are qualified/capable of teaching all children	Demonstrating how the difficulties students experience in learning can be considered dilemmas for teaching rather than problems within students Commitment to the support of all learners Belief in own capacity to promote learning for all children	The identification of difficulties in learning and the associated focus on what the learner *cannot* do often puts a ceiling on learning and achievement Many teachers believe some learners are not their responsibility	Focus on *what is* to be taught (and *how*) rather than *who* is to learn it Providing opportunities for children to choose (rather than pre-determine) the level at which they engage with lessons Strategic/reflective responses to support difficulties which children encounter in their learning Quality of relationships between teacher and learner Interest in the welfare of the 'whole child' not simply the acquisition of knowledge and skills Flexible approach – driven by needs of learners rather than 'coverage' of material Seeing difficulties in learning as professional challenges for teachers, rather than deficits in learners
3. Teachers continually develop creative new ways of working with others	Willingness to work (creatively) with and through others Modelling (creative new) ways of working	Changing thinking about inclusion from 'most' and 'some' to everybody	Interplay between personal/professional stance and the stance of the school – creating spaces for inclusion wherever possible • Seeking and trying out new ways of working to support the learning of all children; • Working with and through other adults in ways that respect the dignity of learners as full members of the community of the classroom; • Being committed to continuing professional development as a way of developing more inclusive practices. In partnerships formed with teachers or other adults who work alongside them in the classroom Through discussions with other teachers / other professionals outside the classroom

Source: adapted from Florian & Spratt, 2013

RESEARCHING THE INCLUSIVE PEDAGOGICAL APPROACH

The interest in how learners differ and the ways in which they can be helped to overcome the difficulties they experience drives much research in special education. But, when the work is done in collusion with a difference discourse that dichotomizes learners on the basis of 'impairment' or some other classification, it cannot help to resolve the dilemmas of difference. Nor can it help with improving what is generally available to everyone in schools.

The focus of research that seeks to understand how teachers extend what is generally available to others taking account that there are always individual differences between them offers a new direction for enquiry that can help disrupt education's normative centre. Table 1.1 presents a framework through which the study of the shift in thinking from most and some, to everybody, can be located. Initially developed as a lens to guide research on developing the inclusive practices of primary and secondary classroom teachers (Florian & Spratt, 2013), the framework provides a structure within which practice can be studied in context.

As shown in Table 1.1, shifting the gaze from 'most' and 'some' to 'everybody', as suggested by the inclusive pedagogical approach is underpinned by three assumptions and associated actions for practice. Key challenges that impinge on the associated actions are presented in the third column. The hope is that by engaging with the challenges described in the table, more nuanced and sophisticated understandings of how to support the participation and learning of everyone can be developed.

CONCLUSION

Supporting a culture shift in education's normative centre is necessary work for the field of special needs education. This chapter has argued that while special education has made an important contribution to the education for all, the limitations and unintended consequences associated with it require a shift in focus away from its problems and limitations towards more equitable educational provision for everyone. Clear thinking about the fulfilment of the right to education, a challenge to deterministic beliefs about ability, and a shift in focus from differences between learners, to learning for all, were suggested as providing opportunities to open up new possibilities for addressing the longstanding problems and unintended consequences of special education. The inclusive pedagogical approach to classroom teaching is presented as an example of how practice might develop as a result of calls for a shift in thinking. In time these new possibilities may also help challenge the exclusionary concept of the 'normative centre'. It may help to change the organization of educational provision and prevailing concepts of schooling, so that the reimagining of special education can become a reimagining of diversity in education. The future task for special education is not to defend what is 'special' about additional provision, but to challenge complacency about what is generally available in schools.

ACKNOWLEDGEMENTS

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2

Confronting Difference: A Brief History of Special Education

M. A. Winzer

This chapter is designed to provide an overview of historical developments in the field of special education stressing the North American experience. Obviously, the chapter is a brief tour, not a comprehensive journey. A quick review cannot capture the subtle ways in which particular contentions have been woven together to generate arguments for varied ideological stances; the contributions of the brilliant, innovative, often controversial, and erratic philosophers and pedagogues who provided a rich heritage to the field; the ideas that were disputed and discarded or embraced and implemented; the multiple reforms and fervent appeals to new ideals and paradigm shifts that characterize the area; or the mosaic of concepts, approaches, and models that have evolved.

To provide an interpretative framework, location – the school addresses where students with disabilities received services – is the central motif. Location points to a gradual humanizing stance from society and encompasses changing opinions about school attendance – from a privilege to a right, to the notion of education matched to individual needs, to significant thrusts for access to general school environments and curriculum.

PIONEERING EFFORTS

Prior to the mid-18th century, individual deviations were rarely tolerated. Persons with disabilities were generally outcasts in society and subject to callous, cruel, or dismissive attitudes. Because it was widely held that disability was inflicted by God or the devil and could be cured only by divine intervention, political and ecclesiastical thought shunned disabled persons and questioned their capacity for spiritual achievement and social responsibility. Most were seen as incapable and incompetent, unable to benefit from instruction of any kind.

Scattered evidence of philosophical and religious interventions exists, but it was not until the middle decades of the 18th century that Europe and Britain turned to the education of persons with disabilities. Of the many prompts, the pervasive influence of the European Enlightenment was striking. Although the chief intellectual project of the Enlightenment was to build a sound body of knowledge about the world, a strand of humanitarian philosophy spoke to the equality of all people and the human responsibility to take care of others. Enlightenment philosophers directed attention to those in society denied equality by social status and simultaneously studied persons with disabilities in attempts to solve the vexing problems of those denied equality by nature (Winzer, 1998). Reform movements to improve the conditions of disadvantaged and marginalized groups and rapid educational advances were achieved within the new set of social boundaries. Intervention for disabled persons was no longer merely a subject of philosophic curiosity: permanent facilities

and pedagogical models emerged in a number of national contexts. France is credited with the most generous vision. In fact, an 1881 writer observed in somewhat hyperbolic tones that 'the great designs and inventions for the removal or palliation of physical or mental disabilities which stand as significant indices on the road of modern civilization were all of them fostered on the fertile soil of France' (Perkins Institution for the Blind, 1881, p. 60).

A progression that became a fairly constant pattern in provision emerged in France; that is, deaf persons were the first to be served. Philosophers advancing novel views of human nature and the role of language made deafness 'a compelling force for philosophical reflection' (Davis, 1997, p. 113). The Abbé Michel Charles de l'Epée (1712–1789) joined Enlightenment ideals of equality, novel concepts about language and its development, and the sensationalist ideas of John Locke and the French *philosophes* to build unique methods for those who were deaf. Earlier attempts had been made to teach deaf people, but de l'Epée's work was of a different nature from the pioneer efforts in England, the Netherlands, and Germany. Those attempts made oralism – efficiency in speech reading and the acquisition of speech – the apex of instruction. To the Abbé, speech was not the essential aim. Instead, he devised a silent language of the hands – sign language.

Valentin Häuy, moved by the spirit of the times and, by his own account, deeply impressed by de l'Epée, opened a school for blind persons in 1782. Edouard Seguin, a pioneer of acute importance to the American enterprise (he emigrated in 1848) began his prestigious career with individuals identified as mentally retarded in 1810. Seguin 'brought to the study of the minds of imbeciles a singularly acute and original intelligence' (Here and there, 1943, p. 213). His work lent a note of optimism to the entire field and entranced the public with the 'cult of curability,' the notion that many mental defects could be ameliorated or eliminated entirely. Most importantly, Seguin's hugely influential *Idiocy and its treatment by the physiological method* (1866) was foundational for myriad institutional and educational developments for persons with intellectual disabilities.

INSTITUTIONAL MODELS

Throughout the 19th century, there was much mutual investigation of education between nations, with Prussia and France being the principal target countries. Thomas Hopkins Gallaudet, Samuel Gridley Howe, Horace Mann, Henry Goddard, and a host of other North American pioneer educators followed a relatively valorized routine when they travelled to Europe to examine different systems. Over the decades, a plethora of initiatives germane to special education were borrowed. From France, for example, institutional models, sign language, Braille, and IQ tests; from Germany, the ideas underlying ungraded and unruly classes, special classes, industrial schools, and normal schools.

In the opening decades of the 19th century, concepts borrowed from Europe melded with American evangelical commitment and unbounded philanthropy and stimulated reformers to undertake programs to improve the lives of people who were weak, dependent or disabled. From 1819 onwards, a complex of institutions catering to disabled individuals grew rapidly in the United States and British North America (Canada). The initial institution, the American Asylum for the Education and Instruction of Deaf and Dumb Persons, was founded by Thomas Hopkins Gallaudet after he returned from France armed with the sign language and accompanied by a French pedagogue, Laurent Clerc.

Institutional establishment coincided with a period of wide social reform and embodied the three major

principles of 19th-century child rescue: protection, separation, and dependence. With these ideals in the foreground, the system that emerged provided students with disabilities unique forms of organization. Segregation within institutions shielded vulnerable children and youth from a callous world and simultaneously relieved the world of disabled people.

Institutional settings created separate educational worlds that demanded unique policies and practices. Two essential tropes defined schooling and curriculum. First was the ideal of spiritual redemption. Religious training founded on an ideology of rehabilitation within evangelical Christian beliefs – all people were capable of being saved – was made 'a matter of first importance' (Stone, 1848, p. 145). What the institutions also confronted was the need to establish an employment role for their students. Founded on the equation of disabled and dependent – 'a helpless class' – as opposed to able bodied and productive – 'happy and useful citizens' – (Ontario Institution for the Education and Instruction of the Deaf and Dumb, 1885, p. 15) industrial training and post-school productivity occupied schoolmen. Practical instruction in trades and domestic skills turned consumers into producers and disabled people into productive, law-abiding workers.

The American institutional network did not develop within the framework of a stable school system: permanent facilities for disabled students predated the common school movement by decades. Contemporary sensibilities held that special schooling was a charitable enterprise and disabled persons pensioners on the state – dependent, deviant and worthy of charity. The founding organizations depended heavily on meager state appropriations and the machinery of private charity. Given the enduring concerns about funding, the institutions were impelled to become self-sufficient congregations. Pupils contributed heavily to the upkeep of their home institution through work in the garden, farm, or sewing shops. They produced articles for sale and took part in public exhibitions of their attainments. Another strategy to increase support was to locate institutions in the hearts of communities. Schools for those intellectually disabled were 'opened at or near the capitols of their various states, in order that the members of the legislature might closely watch their operation' (Fernald, 1893, p. 209). Most schools for blind children were confined to large cities or located at or near the state capital, 'the more thoroughly to convince the legislators of what the blind were capable of accomplishing' (Best, 1934, p. 282).

In the early-19th century, the clergy regarded themselves, and were regarded by the people, as men of real ability, sound knowledge, and impeccable character – the natural guardians of education with the schools under their particular supervision. By the 1850s, the work of educating persons with disabilities was motivated more by statute than the dictates of conscience. The clergy withdrew from their traditional alliance with institutional settings and left the system open for capture by professional schoolmen. Two basic qualities began to characterize the schools: a highly progressive and reformist zeal among the leaders, and an increasing reliance on the expertise of a scientific and professionalized teaching corps.

Teachers of the deaf were the first to assert a sense of unique professional identity: the process of professionalization began during the 1840s when various organizations, such as the Convention of American Educators of the Deaf and Dumb, were established. In 1853, teachers of the blind first formally met. In 1871, the American Association of Instructors of the Blind was established. Edouard Seguin lent his influence to form the Association of Medical Officers of American Institutions for Idiots and Feeble-Minded Persons.

CREATING A PURE AMERICA

In the latter third of the 19th century, the trend in the areas of deafness and blindness was toward loosening the institutional ties. Segregated arrangements were complemented by a host of private and day schools, some grand and generously funded, others modest and unpretentious. Connotations of charity gradually disappeared. The idea of a purely educational journey became increasingly manifest and schooling 'more distinctly an integral part of the state's educational economy' (Best, 1934, p. 293).

In direct contrast, the field of intellectual disability ultimately and critically retained its affiliation with the institutional side. Care and containment, not education and potential cure, became the governing motifs. The designator *school* was replaced with *asylum*, students became inmates, and the service clientele changed from the individual to society. Institutional size and populations expanded dramatically and moved from their central to rural locations. Noble sentiments about education and cure that had driven early efforts gave way to utilitarian practices as the institutions slipped into revised roles – from the training of children who would return to family and community to the prevention of mental retardation in subsequent generations through the segregation of adults. The changes in direction were most rapid and encompassing after 1880, peaked in the first decades of the 20th century, and then settled into inertia. However, the custodial nature persisted into the 1960s, although the idea of the institution as a conveyor belt back to the community was partially resurrected.

Dozens of disintegrating factors dating back to the mid-19th century circled intellectual disability. Broader trends included fears that the nation was in danger of being swamped by undesirable immigrants and home-grown deviants; absolutist American morality; emerging specialization in professional organizations; the dominance of medical men; and advances in scientific and archaeological knowledge (Winzer, 1993). A host of social problems brought escalating rates of moral panic that indicted two large groups – the tide of immigrants flooding into America and an enormous homegrown underclass that garnered a host of unsavory labels.

At first, the 'intellectual inferiors' and 'simple-minded members of the community' (Yerkes, 1917, p. 293) were simultaneously described as *degenerate* or *feeble-minded*. According to the prevalent view, disease and dysfunction were not natural, but rather evidence of moral failure. What took root then was the conviction that social difference, in and of itself, was a mild form of mental deficiency. The poor, prostitutes, criminals, the insane, drunkards, tramps, many immigrants, and the intellectually disabled were all seen to be cut from the same degenerate cloth. And, because degeneracy was hereditary – a manifestation of an individual's inheritance of a 'degenerate constitution' – affected persons inevitably undermined social stability and presented a growing danger to the American way of life. Researchers, writers, universities and colleges, religious groups, and the popular media began to elevate 'the threat of the feeble minded' to the status of a national concern (Winzer, 2009).

The thinking underlying conceptions of degeneracy was a mix of early genetic science, Social Darwinism, and scientific racism. Darwin's 1859 *On the origin of the species* inevitably drew attention to differences within the species and to the selective significance of inborn differences in human beings and led to Social Darwinism – the idea that social relations could be explained by evolutionary theory. Scientific racism, which views the races as biologically different, indicted immigrants.

When these various subcultures melded with the ideology of race improvement, they entranced a new breed of moral entrepreneurs who began to crusade for a genetically and socially pure America. Numerous human

betterment movements emerged to counter the presumed threats to the future of the nation. However, it was the fervent and extreme pseudo-science of eugenics that became the most popular. The term was coined in 1883 by Francis Galton, a British scientist, who joined the Greek words for *well* and *born* to create a new word, *eugenics* which, at the simplest level, promoted unions of the fit and deplored those of the degenerate. Despite its roots, the British remained reticent and aloof from extreme eugenics. Americans were enthralled. In North America, from the 1880s to the 1930s, eugenicists claimed the political, medical, and social terrain: the eugenics preoccupation colored the discussion of a vast variety of topics (Winzer, 2009).

Two events moved eugenics from merely discussions within intellectual and medical circles to a quasi-scientific doctrine. First was the rediscovery of Mendelian genetics in 1899. Second was the advent of IQ tests, created in France by Binet and Simon in 1905 and brought to the United States in 1908 by Henry Goddard, a psychologist from the Vineland Institution for Feeble-Minded Boys and Girls in Vineland, New Jersey. Once Goddard translated the Binet scale into English, testing became the mainstay of the crusade for a pure America. For the first time, the nebulous phenomenon of intelligence could be measured and numerical values attached to the fit, the degenerate, and the feeble-minded. When Goddard and his associates assiduously tested various large groups – students at the Vineland Institution, typical children in Vineland's public schools, and incoming immigrants at Ellis Island – the results pointed to the rising tide of homemade degenerates and also forged a complex nexus between immigrants and feeble-mindedness (Goddard, 1910, 1911).

Professionals – chiefly medical men who served as the superintendents of institutions for the intellectually disabled together with Goddard and like-minded psychologists – were convinced of the absolute necessity of restraining the misfits caught in their wretched cycle of immorality, promiscuity and improvidence. Every superintendent of every state school professed 'A belief in the necessity of permanent care for all this defective class' (Johnson, 1898, p. 467). They insisted on the 'absolute necessity of life-long guardianship' and did so 'in the name of science, of sociology, as a matter of political economy, of the protection of homes, and all that man holds dear' (Barr, 1913, p. 68).

How to accomplish total segregation when faced with the limitations of legislative appropriations was a constant irritant. A set of interrelated plans developed. First, increase the population of institutions; second, abandon any optimism about education, cure, or return to the community; third, use higher-functioning residents to work the land and take care of others; and finally, adopt sterilization as a panacea for the elimination of socially undesirable people (see Landman, 1932).

Pioneers such as Samuel Gridley Howe and Edouard Seguin defined the ideal institutions as small and home-like, but did not intend them as permanent homes. Seguin recommended accommodating no more than 150–200 children – the number that the superintendent could know, care for medically, plan for, and study throughout their school careers (Talbot, 1964). By the 1870s, however, promoters were convinced that it was more advantageous to congregate larger numbers under protective care. States scrambled to build custodial facilities and the number of institutions grew. By 1876, for example, 34 states had institutions for persons considered to be retarded accommodating approximately 25,000 inmates (Thurston, 1876).

By the mid-1880s, the rural institutions had evolved into farm colonies consisting of a custodial department, a training school, an industrial department, and a farm where 'the trained capacities of the stronger' were 'made available for the aid of the weaker and for the diminution of public charge' (Kerlin, 1886,

p. 269). Inmates labored on the farm, tended the animals, and worked the heavy machinery in the laundry, print shop, or boiler room. Females performed domestic chores, did the sewing and mending, and the hand laundry. As the institutions began to productively employ the inmates' labor, education programs were disbanded and the practical training–vocationally-oriented programs originally designed to be the corridor from the institution to the community became a dead end. The eventual release of inmates grew increasingly doubtful: maintenance of the institution itself was the pressing issue.

Even with prudent economy and inmate labor, institutionalization was outrageously costly and could not possibly accommodate the enormous tide of degeneracy. When Francis Galton proposed sterilization as a means of controlling breeding in 1891, many ardent eugenicists found the idea compelling. They saw sterilization as the way to solve a vast array of problems, remove almost every social ill, and ensure the continued progress of society.

The first state sterilization law, passed by the Indiana legislature in 1907, provided for the 'prevention of the procreation of "confirmed criminals, idiots, imbeciles, and rapists"' (Landman, 1932, p. 55). A hodgepodge of state laws then emerged: by 1921, 15 states had laws on sterilization (Carr-Saunders, 1926). Still, eugenics lacked an effective reinforcement mechanism. The landmark decision appeared in the case of Buck vs Bell, decided on 2 May 1927 by Justice Oliver Wendell Holmes of the US Supreme Court. Holmes contended that 'three generations of imbeciles are enough' and that society 'had the right to insist that those who were feeble-minded should forego the privilege of propagating their kind' (Higbee, 1935–1936, p. 12).

By upholding the constitutionality of a sterilization law, the Supreme Court legitimized a state's right to sterilize the unfit. Other courts upheld the principles of the decision. By 1934, 150 million people worldwide lived under laws providing for eugenical sterilization in selected cases (Poponoe, 1934). Of the 30 US states with enabling legislation on the books from 1907 to 1958, California was the most energetic eugenics state. Two Canadian provinces, British Columbia and Alberta, had laws in effect from 1928 to 1973. By the end of 1940, 35,878 men and women had been sterilized or castrated (Winzer, 1993).

COMMON SCHOOLS

The common school reform is often dated from 1848 when Horace Mann reorganized public education in Massachusetts as a state vehicle. To Mann and his fellow reformers, the schools served as a cloak under which a great many secondary projects and ideas sought substance and advancement. Political, social, economic, and educational domains were all part of the mix. The primary object was the socialization of all children. Child savers and educators believed that the common schools represented the unique means to instill American values into students with diverse ethnic, cultural, linguistic, and religious backgrounds. They also served 'as a preventative of pauperism and vice, and as a benefit to the industrial pursuits of life' (Ryerson, 1848, p. 175).

The initial vision of the common schools embraced all students, from the docile and tractable to the deviant and intractable. But almost from the outset, the reformist and optimistic impulses faltered when confronted with disobedient, rambunctious, and nonconforming students. Seeking to maintain order, discipline, and high standards, school districts embarked on sustained efforts to address students who violated social mores, failed to conform to the expectations of teachers, and mounted threats to the placidity of general classrooms. By the 1870s, jurisdictions in the eastern United States were experimenting with processes borrowed from Germany

– ungraded classes aimed at restoration and remediation, and unruly classes to handle those recalcitrant, disobedient, and truant.

The early special classes are best viewed as the birth of a trend rather than a definitive reform. Many faltered – they lacked trained teachers, materials, official commitment, and funding. Little distinction existed between obstreperous pupils and defective learners. Only small numbers attended. School systems tended to preserve the rights of the majority: conduct and personality traits beyond those considered normal served as a plausible excuse for exclusion or suspension. As one administrator pointed out in 1909, these students 'tend to drop out, or be forced out, of school and the problem of the exceptional child disappeared with him' (in Tropea, 1987, p. 31).

SPECIAL CLASSES

By the time that the 20th century opened for business, responses to student heterogeneity were more organized. Institutional settings continued to grow but most expansion came in the form of special, segregated classes beginning in about 1910. The special classes were both the cause of, and the result of, multiple interwoven processes, actions, and disciplines. New medical and scientific knowledge, increasing social fears, and a climate of interventionist social reform provided the historical context within which the end result was steadily increasing numbers of children identified as in need of special schooling. School systems were deeply affected by the tightening of compulsory attendance laws that meant that they could no longer ignore part of the clientele; their reluctance to confront difficult and recalcitrant youngsters; rapidly mounting numbers of immigrant children entering the schools; the lessened participation of youth in the labor market; decreases in child mortality and child morbidity; the testing movement; the development of the fields of psychiatry, psychology, social work, and health care; the mental hygiene movement; and new psychological and medical findings that made professionals, parents, and the public more alert to the educational implications of physical and mental disabilities.

Only a few common threads are readily discernible among the multiple arguments that underlay the founding special classes. One responded to calls for the reduction of retardation and other learning and behavioral problems plaguing the schools. The cost of laggards within overcrowded schools and large classes in terms of finances, teacher time, and classroom disruption was a constant irritant to administrators seeking order, efficiency, and economy, as well as an important political and economic issue (Ayres, 1909). Another echoed those for the earlier ungraded and unruly classes. Segregated classrooms effectively removed the 'flotsam and the jetsam', and the 'hold backs and the drags' (Wallin, 1914, p. 390) so that they could not disrupt classrooms or contaminate the learning of others. In a nod to the eugenists, classes were viewed as a means of protecting society from 'the threat of the feeble-minded'. Educators could 'ensure diagnosis and treatment at an early age' and use the classes or 'clearing houses for personnel segregation before adult life is reached' (Fernald, 1912, p. 9).

The years between 1910 and 1930 witnessed a huge spurt in enrolments in and types of special classes. Educators operationalized the medical model: they assumed that disorders had distinct patterns of symptoms and signs that resulted from different causes and responded to different treatments. Children were labeled with particular disability designations and propelled toward certain classes and pedagogical practices. Along

with the traditional groups of deaf, blind and intellectually disabled, schools discovered those who were hard of hearing, near blind, undernourished, crippled, academically maladjusted, emotionally disturbed, speech defective, tubercular, dyslexic, and gifted. Soon there were special classes under a variety of generic titles such as auxiliary, opportunity, open air, welfare, and steamer to serve immigrant children who could not speak English. Mild mental retardation was positioned in a central place. The category absorbed more classes and more teachers, saw more special education curriculum and methodology, and attracted more funding and legislation than did any other group (Winzer, 2009).

Rapid growth spawned a number of predictable results. For one thing, special education was a fairly well-kept secret within the entire education establishment. The system was separate from general education with different settings and classes, alternate guidelines for program planning and service provisions, and specialized training for its teachers. For another, the clientele of special classes confirmed for general teachers the parameters of acceptable achievement and behavior in their own classrooms. The ensuing social rejection and stigmatization of pupils and perceptions of special education as unique and different soon widened into a chasm that separated sets of education players within a dual system.

Increased financial support for special classes after World War I spurred much growth followed by an evaporation of optimism throughout the 1930s. Together with the burdens of the Great Depression and the fiscal focus of World War II, school systems confronted mounting dissatisfaction with inadequately planned classes staffed by untrained or poorly trained teachers, the complete segregation of children, and the watered-down curriculum. Although some workers held that 'The immediate purpose of most of these special classes is, of course, to enable the pupils to mingle in due course with normal children' (Percival, 1946, p. 237), this rarely happened. By the late-1940s, vexatious questioning about accessibility and support were articulated by parents' organizations and professional groups.

Despite rumblings, special classes were almost universally accepted in the early 1950s. But although special education enrolment jumped, the number of districts providing services increased, the number of teachers grew, and teacher training facilities and allied specialists expanded, not more than 15% of the estimated 5 million school-aged disabled children received special help (Porter, 1953). Education policy was generally characterized by varying layers of exclusion. Some students were allowed into regular schools, but excluded from general classrooms; others were within the school system but excluded from general schools; others were excluded altogether (Winzer, 2009).

DIRECTIONAL CHANGES

Dramatic reforms in special education can be traced to the 1960s. Throughout that decade, a fervent egalitarianism brought large-scale political, social, and economic change in the context of many disenfranchised and marginalized groups; created a wholly new climate for disability; and underlay a paradigm shift in special education. As new conceptions of social justice that included individual and civil rights, equity, and equal opportunity redounded, special education found sociopolitical analyses particularly appealing. These orientations, often lumped together as the social model, discarded the traditional medical model and instead showed that disability was profoundly shaped by contextual conditions and meanings and by human purposes and interests (Winzer & Mazurek, 2012).

Cracks appeared in the veneer of two closely related fields – the social services that provided institutional care, mainly for persons with intellectual disabilities – and the education sector that celebrated segregated education for students with disabilities. Two basic ideologies – normalization and mainstreaming – took root and flowered.

Among other positive outcomes, the principles of normalization brought exposés of the deplorable conditions in institutions, the President's Panel on Mental Retardation, and the birth of the field of disability studies. Support and demand for the cloistered, costly, and segregated institutions seriously eroded. Policy analysts recommended either massive reform or closing the institutions. A trend ensued that saw the continuing movement of residents to community alternatives such as regional centers, group homes and foster care.

An array of factors nourished change throughout special education. Legislation, litigation, parent advocacy, the so-called efficacy studies, the perceived discrimination in segregated classes, the reasoning of the Supreme Court in the 1954 Brown vs. Board of Education decision, and freely flowing funds for research, training and program development all contributed.

The appropriateness of the system, as well as the classification and placement of some students within it for the majority of their educational experiences, came under heavy attack. Special schools and special classes were seen as stigmatizing, discriminatory and unequal, not a fulfillment of the right to education but instead a denial of that right by virtue of exclusionary practices. A gradual (though not uniform) progress in public sentiment emerged. 'More and more', observed one commentator, the exceptional child 'is being considered a positive national asset, with potential that must be mobilized, rather than a liability that must be tolerated for sentimental reasons' (Krugman, 1962, p. 245). Cultural perspectives that opposed the inviolable and narrow subtexts of medical interpretations were particularly powerful agents of change. Questions related to the education of students with disabilities began to be passionately debated through the lenses of morality, equity, civil rights, and the location and transformation of sources of inequality in social, economic, political, and educational structures (Winzer & Mazurek, 2012).

By the early-1970s, the educational integration of students with disabilities was the central theme of special education. Notions about segregation that had appeared so connected and obvious a decade earlier were quite rapidly replaced with a movement toward new delivery models designed to bring marginalized students into mainstream classrooms. These dramatic changes did not answer the educational decision-making process and were not representative of research findings. Instead, they focused on the new educational and social philosophies that spoke to specific versions of social justice that were then solidified in a broad framework of prescriptive federal legislation and state laws designed to define the rights of individuals with disabilities and ensure their access to public education.

The seminal legislation, the Education for All Handicapped Children Act (PL 94 142, EHA; 1975) represented official recognition by the US Congress of a growing dissatisfaction with placing students with disabilities in separate settings. It led to the dismantling of segregated facilities and classrooms; provided the impetus for dramatic changes in the ways that disabled students were served in the public schools; structured the way that educators identified, diagnosed, placed and taught such students; and popularized the notions of the least restrictive environment (LRE) and a cascade of educational services.

The LRE, interpreted as mainstreaming, was reinterpreted as the Regular Education Initiative (REI) which

sought to unite balkanized and dual streams of special and general education and create a system that recognized and taught all children in general settings, with shared responsibility between general and special education (Will, 1986). The rallying cries of mainstreaming and the REI were rapidly replaced by calls for full access to a restructured mainstream, known as inclusive schooling, a term and concept co-opted from the general education reform movement of the 1980s manifest in the airing of *A nation at risk: The imperative for education reform* (National Commission on Excellence in Education, 1983).

Inclusive education identified with much deeper philosophical ideals than did integration, mainstreaming, and the REI. As an outgrowth of a liberal-democratic social philosophy, it was anchored in social justice and social models. Operationalized, the inclusive process attempted to entrench the assumption that a common education for almost all students is possible. The ultimate goal of educational inclusion may be straightforward, but the process of negotiating new understandings has been – and is – contentious. The philosophy and practice are larded with concepts that are ambiguous, complex, and value laden. Undoubtedly, there are multiple successes, an abundance of effort and will, and a stream of innovations and responses. At the same time, there remain many issues and constraints in the interpretation and implementation of the agenda and analyses of inclusive schooling repeatedly call for events that do not happen.

The key policy issue – an egalitarian-inspired imperative manifest as equal access – has been largely accomplished, but the general classroom has been elevated to the most highly-valued setting which complicates the task of reaching common education goals for all learners. Mere compliance with the law does not offer a serious challenge to inequality and marginalization. Even the most ardent advocates of inclusion cannot ignore the anomaly of school failure. Among students with disabilities achievement and test scores have not really improved, drop-out rates are alarmingly high, and graduation rates depressingly low.

CONCLUSION

The history of special education is a complex of interwoven debates, issues and controversies often shaped by emotional responses and historical and cultural beliefs. This brief survey of the major stepping stones in development shows that there has been a gradual humanizing attitude toward persons with disabilities manifested as societal attitudes, as the right to education, and as school addresses.

Throughout the 19th century, the official rationales for the existence of institutions went through periodic changes. The founding establishments were built on charity and intrinsically associated with changing social, economic, political and religious determinants. For deaf or blind students, the final three decades of the century saw mounting agitation for free and compulsory education under local school board jurisdiction. Charity connotations slowly dissipated; the settings transmuted into schools, albeit separate and special, but with educational goals. At the same time, mounting social change and turmoil dramatically altered perceptions of the intellectually disabled population which then spilled over to create shifts in the policies and practices of institutions, their administration and leadership, the clientele, and training and inmate labor.

America discovered degeneracy, an encompassing and sinister category that forged a link between behavioral and social indices and mental disabilities. To alleviate the double threat of immigration and degeneracy, advocates of a better America embarked on a quest to improve the race. Born on converging currents of elitism and racism, eugenics emerged as the most powerful social movement. The eugenics

position held that social problems could be cured by removing the genetically inferior from the gene pool. Segregation was an appealing solution: it protected the public by circumscribing the growth of a potentially dangerous class of persons and prevented intellectual disability in subsequent generations. Sterilization served the same purpose and became a standardized element legitimized by professional and political approbation. The advent of tests of mental ability bolstered the claims and credibility of race betterment movements. Mental tests became the requisite harbingers of grand social reconstruction: everyone could be counted and classified and there was scientific ground for making socially relevant decisions.

Reformers who created the common schools may have celebrated the philosophical notion of universal education, but the numbers of deviant and different students magnified the pressures on school systems and eroded the common school ideal. Student diversity was addressed through the mechanisms of ungraded and unruly classes. Although not successful in their own time and context, the early classes cleared the route for the massive expansion of segregated classes that began in the first decades of the 20th century. Until the 1960s at least, segregated classes remained the unchallenged and preferred settings for students with disabilities.

The 1960s witnessed broad changes in the concept and practice of special education and the social services. As the principles of normalization flowered, institutional settings became the target of serious criticisms. Ideas changed from those of socially responsible custodial care to those of social integration. In special education, the press toward integration was mobilized within the rhetoric of social justice. Arguments held that persons with disabilities had a civil right to live, attend school, and work in the same environment as others.

The next decade introduced overarching and prescriptive federal enabling legislation that included the concept of the least restrictive environment, interpreted as mainstreaming. Reform movements in general education in the 1980s were adopted by special education as inclusive schooling. Today the inclusion of students with disabilities into neighborhood schools and general classrooms has become an article of unshakeable conviction. So embedded are the ideals in legislation, policy, and the consciousness of educators, parents, and the general public that inclusive schooling is now more a *fait accompli* than a reform.

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3

Models of Service Delivery and Forms of Provision

Tony Cline and Norah Frederickson

The models of service delivery and forms of provision for children who have learning difficulties or disabilities develop out of the traditions of education in a society and the way in which these special educational needs (SEN) are conceptualized within the prevailing culture. Expectations regarding inclusion, integration, segregation and specialization will be determined, in part, by the social and cultural context in each society. These expectations will have a profound influence on national forms of provision and models of service delivery. In order to illustrate the range of provision that is possible we will examine the development over time of concepts of SEN and the provision for inclusion in a small number of contrasting jurisdictions – England, Scotland and Singapore. Until 1999, when the legal responsibility for Scottish education was devolved, England and Scotland followed parallel paths in their legislation and provision on SEN. Subsequently, however, they have adopted (or plan to adopt) contrasting strategies because of quite different ways of conceptualizing SEN. Singapore, which became fully independent from Britain in 1965, has taken a distinct path from these two models, partly at least because of cultural contrasts with European traditions.

EVOLVING CONCEPTS OF SPECIAL EDUCATIONAL NEEDS AND MODELS OF SERVICE DELIVERY

a) England

From 1944, the legal framework for SEN provision in England required local education authorities to ensure that there was sufficient school provision in 'number, character, and equipment to afford for all pupils opportunities for education', taking account of 'their different ages, abilities, and aptitudes'. Among other things they had to have regard to:

> the need for securing that provision is made for pupils who suffer from any disability of mind or body by providing, either in special schools or otherwise, special educational treatment, that is to say, education by special methods appropriate for persons suffering from that disability. (Education Act 1944, clause 8)

Some argued in Parliament that as many pupils with disabilities as possible should be 'retained in the normal stream of school life' (Minister Chuter Ede, quoted in Heward & Lloyd-Smith, 1990, p. 25). But the subsequent regulations were based on the competing assumption that special schools would offer the most appropriate, tailored provision for pupils whose disability was 'serious', but where that was impracticable, or where the disability was not serious, alternative arrangements could be made in other types of school. If there was reason to believe that a pupil might have a 'disability of mind or body', a formal assessment was required so as to ensure that they received education by 'special methods appropriate for persons suffering from that disability' (Education Act 1944, clause 8). There were 11 categories of handicap, each of which was assumed

to require distinctive, specialized teaching. These developments gave a considerable impetus to the development of provision in special schools which increased in number by 41% between 1945 and 1955 with a parallel increase of 51% in their pupil population. Sixty per cent of the new places were in residential schools, and 68% were for pupils described as educationally subnormal (Department for Education and Science [DES], 1978, para. 2.49).

The link that was made between a compartmentalized notion of handicap and separate forms of schooling was in line with a prevalent general view of child development at the time. Children who did not have SEN were routinely tested and categorized at the end of their primary school years. The decision on where they received secondary education would depend on an evaluation of their abilities and aptitudes, and a prediction about how long they might be expected to remain at school (Chitty, 2009). This would determine whether they should attend a grammar school (designed for the academically able), a secondary modern school (which was expected to suit the majority) or a secondary technical school (designed for those with a technical or scientific aptitude). Educationists who were accustomed to the existence of a hierarchy of schools in mainstream education had no difficulty with seeing special educational treatment in similar terms. For example, they could expect there to be educationally subnormal pupils 'who, by reason of limited ability or other condition resulting in educational retardation, require some specialised form of education, wholly or partly in substitution for the education normally given in ordinary schools' (Ministry of Education, 1945).

Experience with these arrangements revealed that there were serious flaws in the thinking behind them. The first major challenge arose because a substantial group of children were excluded from the education system altogether. Those who were deemed mentally handicapped were classified as 'unsuitable for education at school'. If they received provision outside the family home at all, it was in a 'junior training centre' run by the local authority health department. Campaigners successfully challenged the assumption that this group of children had a form of arrested or incomplete development that prevented them from benefitting from educational provision. In 1971, local education authorities assumed responsibility for the education of mentally handicapped children, the junior training centres and the staff employed in them were transferred to local education authorities, new training arrangements were introduced, and many new special schools were built. Over the next 15 years, a new professionalism and enthusiastic curriculum development transformed the experience of this new group of school pupils (Mittler, 1986).

At the same time, it was proving difficult to fit the children who had been covered by the 1944 Education Act into the neat categories of handicap prescribed by the Ministry. They often had a range of difficulties and not just a single primary 'handicap', and the disability categories did not always predict what teaching approaches or classroom management style would suit a child best. In addition, individual children in different categories might have similar educational needs, so in 1975 a committee was established under the chairmanship of Mary Warnock to review the situation. They duly recommended that the statutory categories of disabled pupils should be abolished and instead proposed that children who required special educational provision should be identified on the basis of a detailed profile of their educational needs (DES, 1978). The absolute medical concept of a 'disability of mind or body' was replaced by a relative educational concept of 'learning difficulty' ('a significantly greater difficulty in learning than the majority of children of the same age' or 'a disability which either prevents or hinders the child from making use of educational facilities of a kind provided for children of the same age in schools within the area of the local education authority') (Education

Act, 1981). There was assumed to be a continuum of special educational needs, which meant that a 'graduated response' would be needed to discover how much help at what level was required to address the difficulties the child was experiencing. The assessment of a child's needs shifted away from the simple diagnosis of a condition that might be present or absent. What was now required was an analysis of how a child's particular pattern of strengths and weaknesses might interact with the curriculum and the type of support available to produce their current level of attainments, attitudes to learning and social adjustment in school. Provision would be graduated in response (Department for Education and Skills [DfES], 2001).

These changes are often celebrated for having replaced a medicalized approach to decision-making in special education by asserting the primacy of educational principles. More fundamentally, the Warnock Committee's recommendations reflected a well-established cultural shift in the country from absolute to relativist values. In mainstream education, the new relativism had been expressed in an authoritative call for primary schools to be more responsive to individual differences among children (Plowden Committee, 1967) and in a major reorganization of secondary education into comprehensive schools (Armstrong, 2007). The rejection of a rigid categorization of handicapped children as separate laid the basis for tentative moves for some children with SEN towards forms of special educational provision that were more integrated in mainstream schools. However, the rhetoric of inclusive education was not always reflected in substantial changes in schools.

In the first decade of the new century, public debate on SEN in England began to focus on a number of problems that had been experienced with the post-Warnock arrangements – individual special needs being identified too late in a child's school life, parents finding it difficult to get the support that they felt their children needed, and pupils with SEN continuing to show serious levels of underachievement. More children were drawn into the 'SEN net', but there was no firm evidence base behind some of the widely used strategies for supporting them, such as the provision of non-specific support through extra teaching assistant hours in a mainstream school. Schools were accused of manipulating the relatively loose specification of SEN in order to attract additional resources (Maddern, 2010). Mary Warnock, who had led the committee that initiated the changes, made an influential public recantation of some of their recommendations (Warnock, 2005).

In 2011, a new Coalition government led by a minority Conservative Party interpreted these concerns through the prism of a different set of priorities for education services. They had a broader commitment to enhance parents' rights and localize decision-making and funding. This was expressed through enabling independent groups of parents and others to set up 'Free Schools' funded by the state, and through encouraging existing schools that were maintained by local authorities to gain greater independence as free-standing 'Academies'. In the field of SEN, the government published a consultation paper which placed the principle of parental choice above the principle of inclusive education. The arrangements they proposed were designed to 'remove the bias towards inclusion', to 'prevent the unnecessary closure of special schools by giving parents and community groups the power to take them over', and to ensure that

parents of children with statements of SEN will be able to express a preference for any state-funded school – including special schools, Academies and Free Schools – and have their preference met unless it would not meet the needs of the child, be incompatible with the efficient education of other children, or be an inefficient use of resources. (Department for Education [DfE], 2011, para. 7)

Independent special schools have always played a part in the overall pattern of provision, but in the past

they have often been seen as an interim response to a gap in publically maintained provision that should be filled as soon as possible (e.g. DES, 1978, para. 8.58). However, the vision of free parental choice in the future will not be possible unless there is provision for surplus places in alternative forms of provision. It is not clear how that will be funded at a time when overall budgetary limits are tightening. A review of funding mechanisms has been promised, but those with experience of the existing systems at school level have expressed scepticism that the outcome will be fair or generous to those parents with least confidence to make demands on their child's behalf (Frood, 2011). Reforms that were driven by a commitment to give more power to service users are threatening to privilege some groups of users over others.

b) Scotland

New legislation for Scotland in 1945 was based on the same fundamental thinking that had underpinned the English legislation a year earlier. By 1974, the country had over 170 special schools and departments as well as 64 'Junior Occupational Centres' for children who were then called mentally handicapped (Milne, 1978, pp. 120–121). Subsequently, in Scotland as in England, the Warnock Committee's recommendations laid the basis for new legislation. The committee had included members and assessors from Scotland, and its recommendations were implemented in new legislation there a year earlier than in England and Wales. The Education (Scotland) Act 1980 introduced the same definition of SEN to replace what had previously been nine legal categories of handicap. The terminology and some of the procedures differed from the English version, but after the devolution of national responsibility for education to the Scottish Parliament in 1999, SEN policy developed quickly in a different direction. Within 4 years, a new blueprint for provision was introduced with a decision to replace the concept of *special educational needs* (SEN) with a broader concept of *additional support needs* (ASN).

While many of the practical issues that caused concern in England were aired in public debate in Scotland (Tisdall & Riddell, 2006), the new plans built more directly on a set of explicit values, aiming to develop an education system that 'is inclusive, welcomes diversity, and provides an equal opportunity for all children to develop their personality, skills and abilities to their fullest potential' (SEED, 2003, para. 1). The aim was to eliminate the negative connotations of the concept of SEN which was considered to place too much emphasis on 'weaknesses and problems' (para. 11). There could be many circumstances where children might require additional support to learn at one point or another during their school career. The provision to meet ASN would include 'all children who face barriers to accessing and progressing in learning, for whatever reason' (para. 12). In addition to those with SEN, the broader ASN category might cover those who are looked after by local authorities, Gipsy and Traveller children and those with English as an additional language. Within that large group, there would be some children who face long-term complex or multiple barriers to learning and who require support beyond the resources that are normally available to schools and pre-school centres. The arrangements for this support were to be covered by a new *Coordinated Support Plan* (CSP) with statutory backing (para. 29). A parallel multi-agency initiative, *Getting It Right for Every Child* (GIRFEC), was designed to change the culture of care and education for all children, including those with less-extreme support needs. A superficially similar initiative in England, *Achievement for All*, focused on supporting schools and local authorities to help children with SEN to 'fulfil their potential' measured in terms of basic attainments, attendance and behaviour. In contrast, those involved in the GIRFEC initiative explicitly

referred to a much broader range of targeted outcomes across many aspects of development for a broader range of children.

Where the principle of inclusion was downgraded in the recent English proposals, a commitment to inclusiveness was central to the plans in Scotland. This was to be expressed through a requirement 'that, wherever possible, children will be educated in mainstream schools' (para. 8). This commitment was made in the context of broader goals of equality and social justice, but there have been reports of continuing concerns about uneven provision both from surveys of parents (e.g. Riddell, Edward, O'Neill, & Weedon, 2009) and from official inspection reports (HMIE, 2007). A study of government statistics showed that, as would be expected, ASN were recorded more often in areas of high social deprivation (Riddell, Stead, Weedon, & Wright, 2010). That might suggest that the education service was having some success in directing provision to those with additional needs from social as well as other causes. However, in the reformed system, a key factor in the allocation of significant additional resources to individual pupils is whether or not they have a formal CSP. When the distribution of these Plans was studied, it was found that they were disproportionately issued to children in less-deprived neighbourhoods. So, it appeared that children with ASN from socially advantaged families were doing better in terms of access to the provision and support they needed. The research team interviewed a small sample of parents about how disputes with their local authorities on assessment or provision had been resolved. The accounts given by those from middle-class backgrounds indicated greater skill in managing negotiations with professionals and officials so as to ensure an outcome that they saw as in their child's best interests. The arrangements for allocating provision gave advantages to those with greater social and cultural capital (Riddell et al., 2010).

A review by HM inspectors agreed that better consistency was needed in the provision of CSPs for children and young people who meet the relevant criteria for having one. Their Task Force recommended that particular consideration should be given in this context to children and young people who are looked after, are young carers, or have mental health disorders (HMIE, 2010). In a separate paper, Riddell et al. (2009) argued that a more radical reform would be needed if the social goals of the Scottish legislation were to be achieved. What was needed was a shift from talking in terms of individual needs to developing a discourse that emphasized individual rights. Only then would 'teachers and administrators accord much greater respect to children with additional support needs and their parents, rather than treating them as unwelcome customers' (Riddell et al., 2009, p. 294).

(c) Singapore

The late 1940s saw the establishment of the first special schools in Singapore, although there was no legislation relating to special education, a situation that continues to this day (Yeo, Neihart, Tang, Chong, & Huan, 2011). The special schools were established by voluntary welfare organizations for children with significant sensory and physical disabilities. Over subsequent years, additional special schools were opened, each focused on specific categories of need. The first school for children with intellectual disabilities was established in 1963 (Yeo et al., 2011), again by voluntary organizations and, in a significant departure from the development of such provision in England and Scotland, they have remained under voluntary organization management, albeit with increasing involvement by the Singapore Ministry of Education (MOE). The view has frequently been expressed that voluntary organizations are best placed to run services for the disabled,

including special schools, on account of their strong sense of mission (Lim & Nam, 2000). As described below, a dual approach has been adopted where mainstream and special education in Singapore have developed along separate tracks.

Support to people with disabilities in Singapore has been characterized by the 'Many Helping Hands' metaphor for the importance of all sharing responsibility and the fostering of close relationships between the individual, family, community, voluntary and governmental sectors. This draws on the family and collectivist orientations of the three main cultural groups of which Singapore is comprised: Chinese, Malay and Indian, and on societal concern about the dangers to commercial competitiveness perceived to be posed by any move towards a 'welfare state' (Loong, 2011). The influence of the 'Many Helping Hands' approach can be seen in the history of the development and management of special schools until comparatively recently. From their initial establishment by voluntary organizations, special schools have increasingly received government funding, initially from the Ministry of Community Development, but since 1990 from MOE, which assumed responsibility for administration more broadly at that point following an influential report by the Singapore Advisory Council on the Disabled (Lim & Tan, 1999). Acceleration of training programmes for teachers in special schools was another result. In the past year, there has been acknowledgement of parental dissatisfaction with lengthy waiting lists for special schools and a commitment to build more. In justifying the public expenditure entailed there is a pragmatic view of young people with disabilities as untapped resources who, with appropriate education, could be making a greater contribution to their family and to society.

Mainstream education in Singapore has developed very differently to special schooling. Education has long been regarded as a vital tool in ensuring the competitiveness and continuing international success of a small country with no natural resources but its people. Although education is seen as the key means by which individuals can achieve advancement, the underlying philosophy is very much collectivist, with the focus on the needs of society. Meritocratic principles serve both aspects and schooling in Singapore is characterized by frequent testing of achievement in a highly centralized curriculum from which are published league tables of school performance, streaming into programmes geared to different educational and vocational outcomes and rewards (including monetary rewards) for achievement and improvement across programmes (Lim & Tan, 1999; Ng, 2010). Concerns about stresses placed on children and premature judgements constraining their life chances have been countered with reports of reductions in drop-out rates from primary and secondary schools following the introduction of streaming in Singapore in 1980, without negative effects on pupil self-concept or attitude to school (Quah, 1990).

Given the ideologies underlying the development of separate systems of education for children with and without special needs it is perhaps not surprising that there was no commitment to inclusion over much of this period. However, this does not mean that no children with special educational needs and disabilities have been educated in mainstream schools in Singapore. As early as 1988, the Singapore Advisory Council on the Disabled had recommended that 'whenever appropriate and feasible, special education should be provided within the regular education system. A child should only be placed in a special school if [he/she] cannot be well educated in a regular school' (cited in Lim & Tan, 1999, p. 343). A peripatetic specialist teacher service has long been provided by the voluntary organizations to support in mainstream schools children with hearing and visual difficulties who were able to follow the mainstream curriculum and, with the specialist support provided, to access the teaching being delivered in the mainstream classroom (Quah, 1990). It should be

noted that the term 'special educational needs' tends to be applied to children with particular disabilities, not to children identified in the early years of education whose achievement in English language, literacy or numeracy is slower than expected. Such children are enrolled in learning support programmes implemented with small groups on a daily basis through the first and, if necessary, second year of primary school by specially trained teachers, Learning Support Coordinators (Quah & Jones, 1997).

Nonetheless, it had long been recognized that pupils with SEN, whether formally identified or not, may be found at all levels of the education system (Quah, 1990) and in 2004, following calls by the prime minister for an inclusive society in Singapore, MOE announced government-funded initiatives which have since been developed to help students with mild to moderate levels of special needs who could cope with the regular school curriculum to remain in the mainstream schools and do well. Described by Chen and Tan (2006) and Chen and Poon (2008), these can be summarized as follows:

- Training and deployment to each primary school of at least one paraprofessional Special Needs Officer, now re-named Allied Educators (Learning and Behavioural Support) to support children with mild special needs (including dyslexia, autism spectrum conditions and attention deficit hyperactivity disorder) to provide in-class support, individual/small group learning interventions, and small group training in social, study and organizational skills.
- Resourcing a number of secondary schools to support students with dyslexia or mild autism-spectrum conditions.
- Training in special needs for selected teachers in mainstream schools. Around 10% of primary and 20% of secondary teachers have been trained to provide individual and small group teaching, share strategies and resources with other teachers and parents, and assist with monitoring the progress of students with mild special needs.
- While these developments appeared to represent a departure from previous practice, they did not represent a change in principles or criteria for education in mainstream schools. Rather, they indicated the recognition of special educational needs relating, for example, to dyslexia and high-functioning autism-spectrum disorders where the provision of support could enable the pupil to follow the curriculum and access the teaching being delivered in mainstream education.

In this context, the use of the term 'inclusion' as opposed to 'integration' would be disputed by many authors, although it is a very common concern across many school systems internationally that children with special needs are welcomed into mainstream to the extent that the special support provision in place ensures they can be assimilated without significant curricular or pedagogic accommodations to their needs being required (Vislie, 2003). In Singapore, there is at least transparency on this issue. Except in a few respects, such as exemption from Mother Tongue and subject banding, significant modifications to the content of the curriculum in mainstream schools are not seen as desirable. The centralized mainstream curriculum is the focus for the high-stakes testing on which personal advancement depends. The school placement of pupils with SEN will typically depend on their ability to meet extant academic and behavioural expectations. This has been described in relation to pupils with autism spectrum disorders by Aljunied and Frederickson (2011). Those pupils with autism spectrum disorders who are able to meet the academic demands of the mainstream curriculum and respond fairly independently to the social and behavioural demands of learning in large group settings will be educated in mainstream schools. For those who can meet mainstream curriculum demands, but need additional support to cope with the behavioural and social demands of learning, special schools for children with moderate SEN are available to provide customized environments and learning approaches to mediate access to the mainstream curriculum and to develop life skills. For children with the most severe needs, special schools are available that, in addition to support for behavioural and social-communication needs, provide a fully customized curriculum where the content and emphasis in teaching and learning shifts

from an academic focus to one that stresses the acquisition of functional literacy and vocational skills.

In this chapter so far, we have discussed the development of special education in each of the countries examined in relation to changes over time and cross-national differences in influential values, concepts and models in education and in society. However from the descriptions of those developments it is also apparent that the forms of provision actually made in the three countries have many superficial similarities. In the next section, we extend the analysis of forms of provision to consider a range of dimensions and levels which provide the basis for a more detailed differentiation.

FORMS OF PROVISION

Dimensions of variation in provision

Our aim in this section of the chapter is to examine how the different values, concepts and models in the three societies we have considered above are reflected in the forms of service provision that they have developed for children with SEN. This requires a detailed consideration of the ways in which forms of provision differ. That is challenging because historically, the analysis of forms of provision has focused on just one dimension – how close it is to the form of provision made for other children. The Warnock Committee in England presented a typical list ranging from full-time education in an ordinary class with any necessary help and support provided in-class through to long-term education in hospital and home tuition (DES, 1978, para. 6.11). This single dimension of inclusion-segregation has been the central focus of debate on SEN provision for 50 years. It reflects an important feature of provision but fails to record many aspects of schooling that have a crucial impact on the experience and learning of pupils with SEN. For example, the descriptor 'full-time education in an ordinary class with any necessary help and support' leaves it uncertain what forms of help and support might be necessary. The outline account of extra staff support in a formal Statement of SEN might be explicit but also vague, e.g. 'a special needs assistant for three hours per day to support this child in collaboration with the class teacher'. Studies of the arrangements made in England for children with social, emotional and behavioural difficulties (Groom & Rose, 2005) and children with autistic spectrum disorders (Symes & Humphrey, 2011) showed that the nature of the support varied markedly and that the staff involved were often ill-prepared for what they were required to do. In Scotland, a sample of parents of children with ASN also expressed varied judgments on the value of such support (Weedon & Riddell, 2009).

The Warnock Committee themselves had recognized that provision might vary along dimensions that had nothing to do with inclusion-segregation. For example, they might be provided with special means of access to the normal curriculum (e.g. through special equipment or through modifying the physical environment), or they might follow a curriculum that is modified to meet their learning needs. But their list did not by any means exhaust the possible sources of variation in provision that a child's special needs might require. John Fish, who had acted as an expert assessor for the Warnock Committee, later advocated a model of provision with 16 dimensions along which increasing levels of modification might be required as children's SEN became more complex. The list included not only well-established factors such as *curriculum, environment* and *relationships*, but also aspects of provision that had been largely ignored in earlier attempts to develop a systematic model, such as the *time intensity* (how often?) and *time duration* (for how long?) of any intervention. This ambitious framework does not appear to have been adopted or directly developed by others

subsequently, but several of the dimensions which were highlighted by Fish have received increasing attention in recent years. For example, two of the dimensions concern the knowledge and skills of the staff who work directly with pupils in the classroom. What exactly do those who teach a pupil with SEN need to know and be able to do that goes beyond their generic competence as teachers or teaching assistants? Lewis and Norwich (2005) analysed accounts by specialists on different types of SEN to show that the most important special knowledge that might be required will be knowledge of the nature of the special needs group. It is through this that other forms of knowledge (e.g. of the psychology of learning and of particular curriculum areas) will be filtered to develop a tailored teaching strategy that will be distinct from what might be offered to most pupils.

DIFFERENCES IN PROVISION BETWEEN ENGLAND, SCOTLAND AND SINGAPORE

Apparent similarities in patterns of provision and the support for provision across these three countries partly reflect shared participation in underlying international trends. Thus, in all three countries, there has recently been an emphasis on improving the training of teachers for working with pupils who have SEN. In England, for example, 'meeting the needs of all learners' is a key feature of the professional standards that a newly qualified teacher must achieve. Initial training courses are required to provide opportunities for trainee teachers to develop core skills for that purpose, including planning and teaching for inclusion, providing access to the curriculum, skills in behaviour management, and an awareness of the emotional and mental health needs of pupils (to build their self-esteem as learners) (DfE, 2012a), though critics have thrown doubt on the effectiveness of these requirements in England (Hodkinson, 2009) and in Scotland (Donaldson, 2010). Since 2004, the pre-service curriculum for teachers in Singapore has included compulsory modules in special needs (Heng & Tam, 2006). However, in spite of all the efforts that have gone into initial and in-service teacher education, teachers are often reported to feel under-prepared for their work with children who have SEN in England (e.g. DfE, 2011), Scotland (e.g. HMIE, 2007) and Singapore (e.g. Heng & Tam, 2006).

But those similarities conceal significant cross-national differences which relate to the cultural and political contrasts highlighted earlier. This is illustrated, for example, in a top-down initiative in the funding arrangements in Singapore for the training for special needs support staff who are not qualified teachers. Significant government funding was made available so that 236 paraprofessional Allied Educators (Learning and Behaviour Support) could be trained and deployed to schools between 2005 and 2010. Training initially consisted of a part-time university diploma, which became a one-year full-time programme in 2006 (Chen & Poon, 2008). This contrasts markedly with government involvement in England which has focused on the production of induction training materials for special needs assistants (SNAs) (DfES, 2000, 2001), though recently earmarked funding has been made available to make a start on the specialist training of at least some of these staff (DfE, 2012b). As might be predicted from the account of their respective educational cultures above, Singaporean Allied Educators have been allocated to a primary school to support the education of its pupils with special needs. In contrast, in England, SNA hours are attached to particular individual children. While the provision of SNA hours has generally been positively evaluated by teachers, it has been suggested that in too many cases primary responsibility for engaging, and even teaching, the pupil with special needs is devolved to the SNA, removing any requirement on the teacher to create a more inclusive classroom

environment (Giangreco & Broer, 2005; Howes, Farrell, Laplan, & Moss, 2003). Indeed accounts of inadvertent detrimental effects of SNA allocation on social dimensions of provision (e.g. interference with teacher engagement and peer interactions, encouragement of over dependence and stigmatization) have been recognized for some years (Giangreco, Edelman, Luiselli, & McFarland, 1997). These observations, alongside a lack of evidence that SNA support leads to improved academic outcomes (Blatchford et al., 2011), have led to renewed discussion about alternative ways of making provision. These have included attention both to meeting the specific needs of an individual pupil and to developing the capacity for response of a whole school in promoting successful social and academic inclusion (Giangreco, Broer, & Suter, 2011).

Among suggested alternatives to the overreliance on paraprofessional support reviewed by Giangreco, Halvorsen, Doyle and Broer (2004) is the proposal that SNA hours should be traded for qualified special educator input. With an estimated ratio of 4 to 1, this would result in a shift in staffing numbers and expertise representing something halfway between the current situations in England and Singapore. However, most prominent among suggested alternatives are the increased use of peer support strategies (Carter, Cushing, Clark, & Kennedy, 2005; Giangreco et al., 2004). The persuasive rationale is that these strategies are among the best-documented approaches for promoting successful social and academic inclusion (Cross & Walker-Knight, 1997; Nind et al., 2004). While positive outcomes both for children with special needs and their classmates have been recorded from a range of both whole class and peer to peer strategies, these all require appropriate training and preparation of parents, as well as pupils, to ensure understanding of the aims and effective delivery. Given the lower levels of special needs staffing in Singapore, it is not surprising that peer support strategies have long featured as an important element (Quah & Jones, 1997). As global economic pressures come to have an increasing impact on educational provision, calls for international collaboration in investigating efficiency and effectiveness across forms and dimensions of provision are only likely to grow (Webster, et al., 2010).

CONCLUSION

The resourcing of provision for pupils who have SEN in the three countries discussed in this chapter reflects the broader social and cultural values of each society, at least as expressed through their governments. The governing parties in London have elected to prioritize individual entitlement, choice and empowerment; the Scottish government has emphasized the goal of broad social equity; and the government in Singapore has relied on mutual voluntary collective support. The frameworks for resourcing provision are likely to have a considerable influence on the actual forms that provision takes. It is too early to judge the impact of the proposal to 'remove the bias towards inclusion' in England, but there may be some very tentative signs in the statistics that the bias was already being overturned anyway: the proportion of children with new Statements of SEN during 2010 who were placed in resourced provision or SEN units in maintained mainstream schools dropped by 0.3% compared to 2009 and the proportion placed in all types of special school increased by 0.2% (DfE, 2010). This compared with a 1% change for both statistics in the opposite direction during the comparable period 10 years earlier (Department for Education and Employment [DfEE], 2000) and little indication of a trend in either direction for much of the decade in-between (House of Commons Education and Skills Committee, 2006).

Corbett (1998) analysed the 'equality rhetoric' behind the principle of entitlement to services. She argued that when it is based on the image of a market and led by parents as consumers, knowledge becomes power, and 'without an astute awareness of how to work the system' entitlement is likely to prove elusive (p. 46). The authorities in Singapore have discovered that, as demands and expectations rise, the resources of the state may be required to support the efforts of voluntary organizations to provide for SEN. The reports from Scotland by Riddell et al. (2009, 2010) indicate that a national government can also find it difficult to deliver an equitable and inclusive system of provision in the face of effective parental pressure. The proposals for England were stimulated by a faith in localism and in the likely impact of parental choice. It remains to be seen whether this market solution will lead to an expansion or narrowing of the range of provision. In each country, the national strategy for SEN provision is based on an assertion of national cultural values and yet has encountered common universal challenges. An international programme of comparative research may be needed to illuminate how distinct policies based on diverse cultural values evolve overlapping but distinct patterns of provision.

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4

Categories of Special Educational Needs

Brahm Norwich

INTRODUCTION

The classification of children's difficulties in learning into categories has played a key role in the history of special educational provision. Categories have been at the root of the endeavour to identify and provide for a group of children and young people identified as being exceptional. Categories are the basis for parents who group themselves into specific voluntary organizations to promote the interests of a broad group of children. Researchers use categories to sort and describe the groups of children they study. Service managers use categories to monitor and plan additional educational provision, while teachers are prepared professionally and have their professional identities in terms of categories. Without some system of categories or a position about the place and function of categories, there would be no system of special or additional education, as it has been known. Yet, it is very difficult to find a systematic, coherent and evidence-based position about classification that commands wide support. This is a situation that has not improved much over the last 25 years, since Ysseldyke (1987) drew attention to these issues. The aim of this chapter is to examine the issues associated with categories and consider some of the options that need to be confronted.

When examining classification schemes the various aspects of categories in these schemes need to be considered. The first is what is being categorized. Categories have been used to determine the:

1. patterns of exceptional child functioning relevant to education,
2. underlying disorders, disabilities or impairments relevant to child functioning in education,
3. kinds of exceptional placement and general provision (by location, kinds of resources allocated), and
4. kinds of curriculum design and content, and teaching strategy.

The traditional focus of special education categories, one which is still dominant internationally (Organisation for Economic Co-operation and Development [OECD], 2000), is a mixture of exceptional child functioning and underlying disorders, disabilities or impairments. A second aspect concerns the nature of the system for differentiating; whether difference is represented in terms of kind or degree. Where classification systems represent differences of kind, these can be either in terms of single or multiple axes. By contrast, differences of degree are represented by dimensional systems in which the child is placed along a continuum or set of continua. However, regions within these continua are often defined to identify groups of children. In this way, differences of degree become difference of kind, but more finely defined categories.

PURPOSES OF CATEGORIES

The historic basis for special education and the function of categories has been to delineate a group for different or additional educational provision of some form. The purpose of categories, in this sense, is an

administrative one of additional resource allocation. These additional resources, compared to what is allocated for children not identified with additional needs, are often justified in terms of compensating for disadvantages, a kind of affirmative action. Several points can be made about what could be called this political-administrative reason for needing categories. One is that there are different areas where 'additional needs' have been recognized in addition to the traditional special education focus on difficulties and disabilities. There are children whose first language is different from the language medium of the school they attend. In the UK, they might be called children with English as an additional language. Another is the area of 'gifted and talented' for very high-attaining and able children and those with specific talents. A fourth area concerns children who are identified as 'at risk' of school difficulties, but without clear-cut disabilities, what is sometimes referred to in the UK, as 'vulnerable children', those 'at risk of educational exclusion'.[1] The prominence of these three allied areas of additional need varies with the priorities of Government educational policy, as shown recently in the UK, for example. There are similar issues about the definition of categories to specify eligibility for and the limits to the additional provision in these three allied areas as there are for educational disability. There are also issues about the overlap between these areas, for example, children with educational disability and English as an additional language (Cline, 2011).

As regards the disability area of additional needs, it is possible to use only a single broad category, like 'educational disability', a kind of super-category for political-administrative purposes. An example of this was the introduction of the term 'special educational needs' (SEN) in the UK with the 1981 education legislation based on the Warnock Report (Department for Education and Science [DES], 1978). Though the Report has been interpreted as abandoning categories, it actually replaced a set of disability specific categories with a more general category. This move avoided the issue of overlapping disability categories and enabled a focus on the individual needs of children in curriculum and teaching terms rather than just the membership of a category group. Categories for political-administrative purposes are therefore about additional resource allocation and do not in themselves imply that distinct curricula, teaching or placements are required. The eligibility criteria for additional resources are by their nature general and not necessarily about specific education needs at the level of face-to-face teaching.

Another main purpose for categories in education has been concerned with curriculum and teaching. This has taken the form of using categories to inform decisions and sometimes to determine decisions about curriculum, teaching and placement for children. Associated with this has been the use of categories to determine teacher preparation and training. Though the historic role of categories for curriculum and placement decisions has declined, their role in teaching has continued, and, for some categories, increased. Categories for these teaching purposes have their historic origins in the use of medical classifications and categories of disorder and impairments in the diagnostic assessment of children with learning difficulties. Several points can be made about the role of categories with medical origins for teaching purposes. The first point is that these categories are meant to be diagnostic in the sense that they aim to identify causal factors (aetiology) that underlie the presenting difficulties and have implications for future outcomes (prognosis) (Cromwell, Blashfield, & Strauss, 1975). The validity of the category depends on identifying interventions (or treatments) with known outcomes. However, this idealized diagnostic-intervention aspect of medical categories does not apply to many developmental conditions either as curative or rehabilitative kinds of intervention. This is because the historic medical categories used in special education (e.g., intellectual

disability, autistic spectrum disorder [ASD], attention deficit hyperactivity disorder) do not approach the criteria for adequate classification (Kirk & Kutchins, 1992). Some medical categories, e.g., ASD, are by definition general and encompass a range of diverse functioning. For example, in the proposed DSM-5 definition of ASD (American Psychiatric Association [APA], 2012), there are four main criteria or features; for the first two, there are sub-sections, not all of which are required for ASD identification, and in one criterion a general impact judgement has to be made. In addition, there are levels of ASD in terms of support required. Two children could therefore be identified using DSM as having ASD with distinct patterns of functioning. In this case, the category itself cannot be expected to fit diagnostic-intervention assumptions. These kinds of categories cannot be expected to have specific implications for the planning of curriculum and teaching of individual children. So, children identified as having needs associated with a particular special education category (e.g., mild intellectual disability in the USA, or moderate learning difficulties in the UK) might require different teaching approaches; as children in different categories might require the same teaching approach.

A second point about the role of the medical categories used in special education is that they have reinforced some particular false assumptions and ways of thinking that have undermined educational assessment as the basis for the planning of teaching. One assumption is that diagnosis is in terms of general child difficulties or deficits rather than in terms of the child's strengths and difficulties in interaction with learning environmental supports and obstacles (Adelman & Taylor, 1993[2]; Wedell & Lindsay, 1980). Another assumption is that specifying differential characteristics is seen to be enough to justify category use and validity. These false assumptions arise from the lack of understanding of the incomplete nature of the medical categories imported into and used in special education. Ysseldyke (1987) summarized this situation in special education as the use of 'an inappropriate and invalid diagnostic-intervention paradigm' (p. 256) and classification practice not being treated theoretically. However, none of this discussion implies that medical categories cannot and do not have some relevance to special education, as the chapter will illustrate in what follows.

CURRENT CATEGORY SYSTEMS

Despite the fact that the broad category 'special educational needs' was used in legislation and sub-categories were widely used in service delivery in the UK system for a quarter of a century, the UK system has been represented from an international perspective as having a non-categorical system (OECD, 2000). The reason for this view was the official focus on need and the abandonment of sub-categories in the 1981 legislation. From the OECD perspective, the UK was similar to Denmark, which also had distinguished between significant SEN and less significant SEN – in UK terms SEN with and without Statements – within a philosophy which responds to exceptionalities rather than defining student categories. In the OECD analysis, the definitions used in 23 countries were presented as fitting four basic patterns:

1. use of disability categories only (e.g., France, Germany),
2. use of disability categories + disadvantaged students (e.g., Greece, New Zealand),
3. use of disability categories + disadvantaged students + gifted students (e.g., Spain, Turkey),
4. base provision on the need to respond to exceptionalities rather than defining students (e.g., New Brunswick, Canada, UK, Denmark).

Though this is an interesting and useful set of international distinctions, it does not explain the detailed aspects of the definitions of need in the fourth pattern, such as the degrees of need and how what is needed is conceptualized in provision terms. The OECD only defines SEN as:

those with special educational needs are defined by the additional public and/or private resources provided to support their education. (OECD, 2000, p. 8)

The reference to 'additional resources' shifts the focus away from child characteristics to the available educational provision, its flexibility and appropriateness, but does not advance the provision-focussed approach. It is in even less detail than the analysis presented in the introduction of this chapter, in terms of patterns of child functioning, disorder and disabilities, on one hand, and kinds of exceptional placement, curriculum and teaching, on the other. But, what the OECD needs-focus does offer is a way of bringing together the four areas of exceptional need into a common framework. Though this kind of thinking probably has its origins in the UK Warnock critique of child-focussed categories, the OECD position highlights the anomaly in the UK system between adopting a provision-focus and separating provision for disabilities from that for 'gifted and talented', English as a second language and social disadvantage.

The UK (England) Government introduced a national system for monitoring individual school children (Department for Education and Skills [DfES], 2003), which includes details of the kind of SEN and is still in current use. What characterizes this classification is that SEN is not defined in terms of provision but child difficulty categories; 11 areas of SEN[3] similar in principle to the 11 categories of education handicap used until 1980, which formed the basis for the pre-Warnock system of special education. This 2003 classification system applied to children at only two of the three levels of SEN, those with Statements (about 3%) and those at School Action Plus (about 6%), not to the larger groups of children with SEN at School Action (about 11%). This move brought the English system into line with other countries, like the USA, where federal regulations under the IDEA legislation prescribed 12 separate disabling conditions, covering similar areas to the UK (England) one, but using different terms (OECD, 2000). Though the different States making up the USA may vary in their classification policies, most use the federal one with some changes in terminology. Since 1997, States and school districts in the USA have the option of eliminating disability classification for children aged 3–9 years, a practice also found in other countries, such as South Korea, for example. However, the key point is that though the UK language is about needed provision, classificatory practice still focusses, as in other countries, on the child's difficulties and developmental delays.[4]

The OECD study also provided an interesting higher-order system of cross-country categories for comparing the categories of 22 countries. These were represented as:

1. Category A – where there is substantial normative agreement about the categories, e.g., sensory, motor, severe, profound intellectual disabilities,
2. Category B – difficulties which do not appear to be attributable to factors which lead to categories A and C; what could be called 'contested' disabilities (Dyson, 2002),
3. Category C – difficulties that arise from socio-economic, cultural and/or linguistic factors; some disadvantaged or atypical background which education seeks to compensate for.

When the national panels classified their national SEN classification system in terms of this scheme, it showed very wide variations between countries. For example, the USA was reported to have 5.6% of all

primary and lower secondary-aged children in category A (normative agreement about disabilities) and almost 70% of these children in regular classrooms; whereas Holland which only had 1.8% in category A, had 87% of them in special schools.

THE PROBLEMS UNDERLYING CATEGORIES

During the consultations over the proposed English SEN classification in 2002, the arguments about categories re-surfaced, especially over those areas identified as contested disabilities, category B in OECD terms. Over the past two decades, there has been persistent criticism of the concept of SEN from a critical sociological perspective as part of a wider critique of the special education system (Booth & Ainscow, 2011; Tomlinson, 1982, 1985). Tomlinson (1985) argued that the concept of special needs was ambiguous and that it had become part of a rhetoric that served little educational purpose. It was tautological because needs were defined in terms of additional provision without specifying who was to have this additional provision, other than that it was for those with special needs. Tomlinson's point was that while the identification problem had not been resolved, the SEN concept was expanded by the 1981 educational legislation.

However, it has been and still remains unclear whether the normatively agreed versus contested disabilities distinction is one of causation, severity of disability, the setting and use of norms or some combination of these aspects. If it were one of causation, then it parallels one made traditionally in medicine between organically and functionally or psycho-socially caused conditions. However, this is currently not a clear medical distinction as even organically-based conditions might also be associated with psycho-social causal and maintenance conditions. Also, all medical disorders, whatever their causation, are initially identified in terms of social norms and values (Kennedy, 1980). To use a current example, whether over-activity and attention difficulties are interpreted either as an attention deficit hyperactivity disorder (AD/HD), or as a reactive difficulty to social-emotional conditions or as adult intolerance of child energy is initially a matter of how norms are set. If a child's 'problem' is identified, then this is judged in terms of a deviation from the norms, whether it is identified as a disorder or reactive difficulty.

Following the OECD scheme, there is more agreement in some 'problem' areas and less agreement in others over the norms. One interpretation of this difference is that more normative agreement is found where there are identifiable biologically-based impairments and where there are greater deviations from the norms and a lower frequency of identification (sometimes called low incidence). By contrast, contested categories are found more in those areas where functioning cannot be attributed clearly and mainly to biological impairments and where the degree of deviation is less from the norm or average and identification rates more frequent (sometimes called high incidence). There is some evidence for this interpretation of the difference between category A and category B areas in the data from the OECD study. For nine of the 11 countries (82%) for which there was incidence data, there were higher national percentages of children in the contested category B areas than normatively agreed category A areas, even though there were many more categories in category A than category B. Also, in the 14 of the 22 countries (64%) where national panels identified contested disabilities, the most frequent areas were:

1. learning disabilities (50% of countries), as understood in the USA, or specific learning difficulties, as understood in the UK,
2. learning difficulties (43% of countries), with reference to social origins, slow learning and remedial needs,

3. social-emotional difficulties and/or behaviour disturbance or difficulties (50% of countries).

These are the SEN areas where there is less deviation from the norms and/or biological causation is more uncertain.

HAVE GENERAL CATEGORIES OUTLIVED THEIR USEFULNESS?

The recent UK (England) system is interesting internationally in view of the earlier policy of 'abandoning' and then re-introducing categories. The Warnock position of rejecting child categories because there was no clear dividing line between disability and no disability conflicted with its other recommendation for more positive sounding categories. Attention was distracted from this contradiction by its other proposals; by the distancing of medical categories through concentrating on educational needs and provision, and by highlighting the individuality of needs that could not be captured by crude general categories. That the Warnock position was based on traditional categories was clear from its dependence on well-known epidemiological studies, like the Isle of Wight study (Rutter, Tizard, & Whitmore, 1970).

There have been several challenges to the Warnock philosophy in the UK. One has been the resurgence of interest in the causal role of within-child causal factors in the interaction with the role of the social and learning environment. This has been especially from interest groups defining themselves in terms of medical categories, such as, dyslexia, dyspraxia, autism and attention deficit hyperactivity disorder. A different challenge has also come from members of a rights-based disability movement, who reject the term 'needs' as implying paternalistic and professional control. A third challenge to the Warnock orthodoxy has come from a financial management perspective, best exemplified in the recent case for common national definitions of need by the UK Government-funded Audit Commission (Audit Commission, 2002). This third challenge has been followed in the current Government's proposal, in the context of public service funding cut-backs, to redefine and reduce the identification of SEN by reducing the percentage identified by half, from about 20% to 10% (DFE, 2011).

The contemporary justification for defining national common categories of SEN, was expressed by the Government Department for Education and Skills (DfES, 2003), in terms of the need for planning and monitoring provision. Strategic planning of the education services is possible, it was argued, only if there are clear and consistent definitions of need; comparison with health planning is made here. This is presented as an equal opportunities issue; consistency of service requires common definitions across schools and Local Authorities. However, this justification for re-introducing categories is problematic. Though Government language persists in talking about SEN, these are presented only as a mix of definitions of areas of difficulties, impairments and disorders; so losing the benefits of the Warnock switch to educational needs and provision.

There have been criticisms of the UK (England) SEN classification in terms of its validity, desirability and necessity (Gray, 2003). The validity issue, as discussed above, is about whether the categories have implications for specific provision or interventions for those in a category compared to those not in the category and those not having SEN. Ysseldyke (1987) concluded in the US context that with the exception of children with sensory impairments there were no teaching strategies and techniques that were uniquely effective for certain categories of children. Mercer and Mercer (2001) and McDonnell, McLaughlin and Morison (1997) have come to similar conclusions about the validity of categories for teaching and curriculum

more recently in the USA. Other US authors also recognize that ordinary teachers can use teaching practices associated with specific SEN/disability areas (Cook & Shirmer, 2003) and that in relation to learning disability (in UK terms: specific learning difficulties) the distinctive aspects are about the 'delivery of instruction' (Vaughn & Linan-Thompson, 2003). In the UK, Lewis and Norwich (2004) concluded that the traditional SEN categories, used in the UK and internationally, have some but limited usefulness in the context of planning, monitoring, teaching and learning in most areas. Where they are judged to be useful, the categories operate as orienting concepts and inform decision-making about teaching as one of several other important elements. Davis and Florian (2004) also concluded that teaching approaches associated with many specific areas of SEN could not be differentiated enough from those used with all children.

These criticisms about the desirability of SEN/disability categories connects with the political–administrative reasons for categories, discussed in the introduction, as related to additional resource allocation decisions. One criticism has been that they create pressure and incentives to increase the rate of identification of children with SEN, what are called 'perverse incentives'. The problem of 'perverse incentives' can be dealt with in two broad ways. One is to counter the pressures to over-identify by using systems of external checking of assessment judgements by external professionals, such as psychologists, or external teachers to moderate audits of a school's identification of SEN. The other way is not to use categories at all – but this will undermine the basis of a system of additional educational resourcing for children with SEN and disabilities. This raises the question of the necessity of categories. One position is that services can respond to individual variations if they focus on what is to be achieved, by focussing on outcomes (Gray, 2003). It has been argued that additional resources can be funded at a school level, based on aggregate baseline attainment levels and measures of social disadvantage. However, like others who have advocated this alternative in the UK (Dyson, 2002), nobody advocates the full replacement of child level resourcing and planning, only a reduction in the numbers involved in child level resourcing. In this situation, some decisions are needed about which children are to be covered by the SEN categories and about the individual identification and planning SEN framework. So, the category question does not go away with more school level resourcing, just the number of children covered by it is reduced. Also, even if all additional resourcing was based on school level aggregate baseline attainment and social disadvantage indicators, decisions within schools about resource allocation would most likely call for some child level allocations and thus some classification system of child difficulties.

HARD DECISIONS AND FUTURE OPTIONS

It is possible to conclude that SEN categories have limited validity in terms of specific curriculum and teaching needs, while justifying the continued use of some child-focussed categories for compensatory additional resource allocation. The differentiation in a SEN classification marks the threshold at which some children would get more educational resources than others, between more and less resource worthy groups. However, disability is the not the only area in receipt of additional resourcing. There are also doubts about the children who come into the OECD category B – contested disabilities – would they receive additional resourcing in terms of disabilities, as at present, or in terms of social disadvantage? Whether additional resourcing is in terms of disability or disadvantage, there are hard decisions or dilemmas both ways about difference and differentiation – to identify or to not identify differences such as difficulties in learning

(Norwich, 1993, 1996, 2008). These dilemmas arise from the positive and negative conceptions in our society about human differences, and what is called differentiation in education. The negative perspective is that 'difference' reflects lower status and stigma and so perpetuates inequalities and unfair treatment. The positive perspective is that 'difference' reflects the recognition of individuality, individual needs and interests. It is the tension between these conceptions of difference which leads us to address *dilemmas of difference*. The dilemma is that both options, to recognize or not to recognize difference have negative risks. Recognizing difference can lead to different provision, which might be stigmatized and devalued; but not recognizing difference can lead to overlooking and ignoring individuality. The tension is between the values of inclusion and individuality. From an inclusive perspective, SEN categories can be seen as a form of terminological separation and exclusion.

From this dilemmatic perspective, the challenge is to provide appropriate and individually relevant provision, while minimizing stigma and devaluation. One way of doing this is to adopt a three-dimensional model of educational needs. This sets special or specific group based educational needs within the context of general needs common to all, on one hand, and unique needs, on the other (Lewis & Norwich, 2004; Norwich, 1996). Individual educational needs are considered at the same time in this framework in terms of:

1. general needs common to all,
2. specific needs associated with group membership,
3. unique needs.

Disability categories, as do other general categories, do not therefore fully define a child's educational needs. Children coming within a broad category, e.g., ASD, will share some needs in common with those not in that category (common to all needs). Also, different children within a category will have some needs that are unique to them (unique needs). Common needs could include the central place of respect for all, irrespective of differences, and provide the basis for avoiding stigma and devaluation.

If categories are useful for political-administrative purposes, then there is still the need to determine which groups or areas of educational need require additional resources and what the relationships are between these areas. This is important in policy terms as the additional resourcing can come under different legislative and administrative systems or titles. In the UK (England), for example, additional resourcing for disability (called SEN) operates differently from additional resourcing for social disadvantage (currently under the heading of the 'pupil premium'). How additional resourcing is organized and titled is also important in terms of the quality of services, the assurances and controls available to parents about appropriate additional provision, and the social identities of children who receive additional provision and their parents. Is it justifiable that the areas of moderate learning difficulties, specific learning difficulties and social, emotional and behaviour difficulties, to use the UK (England) SEN classification, continue to be regarded as area of SEN with the implication that they are disabilities? In international terms, using the OECD scheme, what is the future for category B areas, the contested disability areas of SEN? These are some options:

1. to keep them with disabilities, as in the UK,
2. to treat them like difficulties associated with social disadvantage,
3. to separate them into two areas, the more severe, complex and pervasive problems, which will be treated as disabilities, which will be differentiated from the milder and less pervasive problems, which will be treated like social disadvantage.

In a North-American context, it has been argued that the equivalent of the UK categories of moderate learning difficulties (MLD; mild intellectual disabilities), specific learning difficulties (SpLD; learning disabilities) and social, emotional and behaviour difficulties (SEBD; behaviour disorders) cannot be distinguished from each other. Johnson (1998) exemplifies this position, in using the generic term 'mild educational disabilities'. It is interesting that this generic approach is widely used in preparing and licensing special education teachers for teaching children with mild disabilities in the USA (Hardman & McDonnell, 2004). Johnson argues for the merging of the mild educational disabilities category with the wider group of children at risk of educational failure on the grounds that the student-based risk factors are very similar in the at-risk and the mild disability groups. The benefits of merger are that the at-risk framework includes a range of environmental at-risk factors (class, school, neighbourhood, family, societal) that enables more and broader systemic interventions that connect educational needs in schools with other social and personal needs. In the UK context, Norwich and Kelly (2004) in a review of the field of MLD identified three options about the future of the MLD category, based on the assumption of a dilemma about identification:

1. retain and specify operational criteria for a revised tighter MLD category as an area of disability,
2. abandon MLD as a disability category and merge with a non-disability low-attainment group with educational provision under a social inclusion framework,
3. abandon MLD for the majority of children currently identified (as in the second option), while redefining a new tighter category of mild mixed difficulties as a new disability category for a minority of the children currently identified.

It was argued that empirical research is needed to examine whether there is a justification for the MLD category as distinct from allied disability categories (SpLD and BESD; Behaviour, Emotional and Social Difficulty) and the at-risk or low-attaining group. It is clear that a similar set of considerations would apply to examining the other two allied SEN areas, SpLD and BESD. This was relevant in the UK context with the introduction of the 2003 SEN classification without empirically-based research and development work. It is still relevant and also likely to be relevant to other national classifications too.

OTHER BROAD CLASSIFICATION OPTIONS

Though it has been argued that some system of categories can be justified in terms of political-administrative reasons of additional resource allocation, it does not follow that the traditional classification like the recent UK (England) 11 categories, and other similar systems, best serves this purpose. Identifying educational needs or requirements for children with disabilities and difficulties involves balancing common and different needs. The three-dimensional model provides a way to resolve conceptually the dilemma of difference in practice as regards identification (Norwich, 2009). This involves starting with and using commonality strategies as far as these can go. Where significant differentiating strategies begin depends on how well common systems can be geared to individual needs. The more inclusive the provision, the less need there is for sub-group categories and identification. This has been the basis for the 3 Tiers and the Response to Instruction (RTI) models of identifying disability and difficulties in education (Vaughn & Fuchs, 2003), which has been influential in the USA and internationally, and been adopted in the 'Wave' model in the UK (National Literacy Strategy, 2003). The RTI approach takes seriously that additional needs is based on an interaction between a learner and her/his environmental context. It has been characterized as an assessment for intervention or teaching, not

assessment for determining categories or labels.

The UK Wave model links general to special education in this way:

- Wave 1: The effective inclusion of all children in a high-quality differentiated literacy programme,
- Wave 2: Additional small-group intervention in addition to Wave 1, for children who can be expected to catch up with their peers as a result of the intervention,
- Wave 3: Specific targeted approaches for children, not responding to Wave 2, identified as requiring specialist support.

However, the relationship between Wave 3 (specialist support) and the graduated system of identifying SEN (School Action, School Action Plus or with a Statement) has not clarified in its UK use. In the USA, by contrast, RTI has been required in some States for identifying specific learning disabilities (equivalent to specific learning difficulties in the UK).

This RTI model underlies US attempts to reconceptualize specific learning disability by avoiding what has been called the 'wait to fail' model, where identification does not derive from nor is linked to teaching and learning settings. The basic principle underlying RTI is early response to signs of not progressing in literacy through an intensive fixed-duration programme. *Non-responding* is used as the criterion for identifying a learning disability that requires special educational programming. Whether RTI can replace traditional child-focussed psychometric assessments has been the source of much contention in the USA (Fletcher & Vaughn, 2009; Reynolds & Shaywitz, 2009). These issues will not be examined in this chapter, but they have led some authors to recognize that there may be value in having further assessment and identification procedures beyond a simple 'response to instruction' model (Vaughn & Fuchs, 2003).

Another development which is also based on bio-psycho-social assumptions and has particular relevance to the issues raised in this chapter, is the WHO's International Classification of Functioning for Children and Young People (ICF-CY) (World Trade Organization, 2002). This classification framework represents a basic move from using medical disease and disorder categories (e.g., based on DSM and ICD) to a focus on functioning in various social contexts (Simeonsson, 2009). In this sense it represents an integration of what have been called, social and medical models into a multi-level, multi-disciplinary and interactive model.

The ICF model represents disability in terms of the interaction of 1) bodily functions/structures, 2) activities (tasks and activities that can be executed) and 3) participation (what the person can do in current environment) – see Figure 4.1. These inter-related dimensions are influenced by health conditions (disorders/diseases), on one hand, and contextual factors (environmental and personal factors), on the other. However, the ICF system has been designed to cover functions, activities and participation in general across a range of life contexts, and therefore goes well beyond those aspects that relate specifically to educational functions, needs and specific contexts.

One of the advantages of the ICF framework is that it can break the hold that administrative and diagnostic categories have had for decisions about eligibility for special or additional provision. While eligibility decisions are made differently internationally, in terms of central versus local decisions and tight (e.g., USA) versus flexible criteria (e.g., UK), there have been concerns about how such decisions are also influenced by other factors such as ethnicity, gender and class (Florian & MacLaughlin, 2008). Hollenweger (2011) suggests that the ICF provides a framework that opens up the issue of over- and under-representation, without having a fixed set of eligibility criteria, while establishing eligibility compatible with the human rights

of people with disabilities. This, she argues, can be done within an ICF framework by opening up debate on thresholds for taking up access to special or additional provision. The ICF framework can also be seen to be compatible with the RTI approach, discussed above, because of its focus on assessment for intervention and programming rather than assessment for labelling.

In her extension of the ICF framework to education, Hollenweger underlines eligibility decisions as a problem-solving process that considers different professional as well as parent and child perspectives; the collecting of data from different sources. Her educational extension is based on the educational principle that eligibility is concerned not only with current but also future participation. This requires taking account of educational aims and goals as well as methods and practices. Figure 4.1 shows this educational expansion of the ICF framework in two ways. The first is to cover specific environmental factors in terms of relevant methods, services and provision, and the second is to add a dimension of educational/developmental goals that set the direction for enhancing current activity and participation levels (Hollenweger, 2011). Though this is early days for this kind of development and there are some issues associated with the ICF framework, the ICF is potentially a very important conceptual development with practical promise (Imre, 2004).

CONCLUSION

This chapter has come to similar general conclusions as Ysseldyke (1987), some 25 years later, though from a different national context and in a changed international educational context. Classification has not be addressed in theoretical terms and despite some positive moves in the UK after the Warnock Report (DES, 1978) to consider classification from an educational perspective, the current situation is still characterized by inappropriate models and a lack of theoretical analysis.
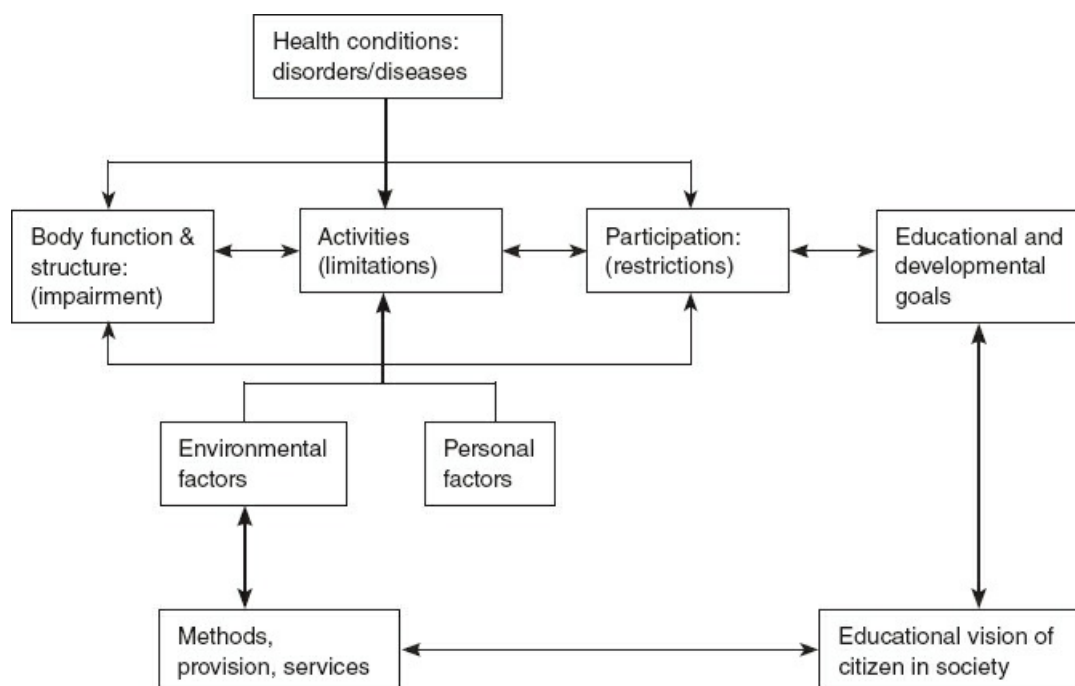
Figure 4.1　ICF expanded for educational use

The chapter has been based on the distinction between categories for political-administrative purposes and

for curriculum, teaching and provision purposes. Some system of categories for resource allocation is necessary, but this does not require the traditional 11–13 special education categories. Research reviews and analyses have consistently indicated the limited usefulness of these categories in many areas, especially in the contested disabilities (for children coming under the OECD contested disabilities – category B). Even when categories have some educational significance, their general nature means that they inform rather than determine specific education planning and provision for individual children.

The chapter has also explained the hard decisions about identification that need to be addressed in this field in terms of dilemmas of difference. The identification dilemma arises from positive and negative conceptions about differences in education and society generally, of which disabilities are the most notable. Categories may be justified in positive compensatory terms, for disability and other areas of additional need, but at the risk of negative outcomes such as stigma, devaluation and exclusion. Recognizing the tension is the first step to finding classifications which best support compensatory provision while minimizing the negative risks and consequences. Using categories within a three-dimensional model of educational needs is one way of ensuring a focus on common needs for all (including respect for all), while recognizing unique needs as well.

Three broad areas for future classificatory development were considered as well. One was about the boundaries between disabilities and social disadvantage for the large proportion of children identified as having mild educational disabilities – in the area of the OECD category B. Another was about the 3 Tiers/RTI model that has connected general to specialized provision. The third was the development of sophisticated multi-dimensional category systems based on the ICF assumptions and model, but geared to educational contexts and purposes. All three areas depend on national and international commitment to research and development work about classification systems. The criteria by which we should evaluate classification systems were outlined many years ago: they should be reliable, have coverage, be consistent, useful, acceptable to users, reviewed periodically, and evaluated in terms of the balance of gains to losses to those affected by them (Cromwell et al., 1975). It is time to take them more seriously.

NOTES

1 Boys and girls, minority ethnic groups, travellers, asylum seekers, refugees, English as additional language, SEN, gifted and talented, looked after by/in the care of Local Authority, sick children, young carers, children where families under stress, pregnant schools girls, at risk of disaffection and exclusion (at risk of educational exclusion: Office for Standards in Education).

2 Transactional model of causation: a continuum of person–environment transactions – at one pole type-I problems where causation is mainly environmental, type-II problems where causation is equally caused by person and environment, and type-III problems where causation is mainly in the person.

3 A) Cognition and learning needs: Specific Learning Difficulty (SpLD), Moderate Learning Difficulty (MLD), Severe Learning Difficulty (SLD), Profound and Multiple Learning Difficulty (PMLD).

   B) Behaviour, emotional and social development needs: Behaviour, Emotional and Social Difficulty (BESD).

   C) Communication and Interaction Needs: Speech, Language and Communication Needs (SLCN), Autistic Spectrum Disorder (ASD).

   D) Sensory and/or physical needs: Visual Impairment (VI), Hearing Impairment (HI), Multi-Sensory Impairment (MSI), Physical Disability (PD).

4 No change in focus can be expected given the recent Government SEN Green Paper (consultation and position paper about SEN policy for England: DFE, 2011)

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5

The Disproportionate Placement of Ethnic Minorities in Special Education

Beth Harry

Ethnic disproportionality in special education refers to the fact that students from certain historically excluded minority groups have been placed in special education programs at rates that are disproportionate to their presence in the student population as a whole. For a variety of reasons that will be explained in this chapter, this pattern, noted in the US since the inception of the federal legislation guaranteeing the right to education for students with disabilities, has been the source of controversy as to whether disproportionality represents discriminatory decisions that result in the excluding or stigmatizing of historically oppressed minorities.

Although the focus of this chapter is on the situation in the US, low achievement and/or special education placement of certain ethnic minority groups are of concern in many countries. An international view provides us with a key insight: First, it is not race, as a biological construct, which accounts for low educational achievement, but rather the historical status of a given 'minority' group within a society. Thus, 'race' is really a proxy not just for low socioeconomic status as some have argued (MacMillan & Reschly, 1998), but for an enduring history of discrimination and exclusion. A second insight essential to the argument of this chapter is that high incidence disabilities (disability categories which tend to be determined by clinical judgment rather than evidence of biological or organic anomalies) represent social constructions by which relatively arbitrary points on the continuum of achievement are designated as 'disabilities'. Moreover, as O'Connor and Fernandez (2006) argued, the very notion of 'success' is a social construction utilizing White middle-class achievement as the reference point. When both race and disability are viewed as socially constructed categories, it is easy to see how the educational difficulties of minorities are statements about societies rather than about children. In brief, the argument of this chapter is that the main reason the overrepresentation of ethnic minorities in programs for students with 'high incidence' disabilities is problematic is that it is rooted in a paradigm of categorization and classification which, despite good intentions, tends to perpetuate inequities historically ingrained in the society. Of course, as Dyson and Gallanaugh (2008) observed, disproportionality also exists in many other aspects of social life, such as poverty, poor housing, and employment. Some interpret this relationship as causative, that is, that poverty is the main component that leads to special education placement. Rather, I would argue that this pattern points to special education disproportionality as one more feature reflecting deeper structural inequities – or as Waitoller, Artiles, and Cheney (2010) argued, it is 'the miner's canary', alerting us to a host of difficulties in the mines.

THE IMPACT OF ETHNIC MINORITY STATUS ON EDUCATIONAL ACHIEVEMENT

Cross-cultural studies of the educational performance of minorities indicate that the lowest achievers are

typically those minority groups who have experienced a history of exclusion and stigmatization within a society. Integral to this pattern are education systems with a history of having provided inferior and, often, separate schooling for these groups and having excluded their cultures or languages from the curriculum. It is clear that, while these minority groups may or may not be racially different from the mainstream, their relegation to the lowest rungs of the society reflects their history as outsiders or dominated peoples within the society. In discussing the 'social construction of difference', Gillborn and Youdell (2000) observed that groups defined socially by gender, ethnicity, race, or class are 'defined by social convention, not by inherent, fixed or 'natural' differences' (p. 4). Hence, there can be no assumption of intrinsic differences in group members' capacity to participate successfully in the educational arena.

Collections of studies by Skutnabb-Kangas and Cummins (1988) and Gibson and Ogbu (1991) exemplify the global pattern of minority underachievement. For example, 'outsiders' who exhibit low achievement include Koreans in Japan, Finns in Sweden, West Indians, Pakistanis and Bangladeshis in Britain (Gillborn & Youdell, 2000; Office for Standards in Education, 2013), and Moroccans in Spain (Escandell, 2002). These studies and others show that indigenous minorities fare even worse than immigrant groups: To name but a few – the Burakumin in Japan (De Vos & Wagatsuma, 1966), the Sami in Finland, Aboriginal natives in Australia (Jordan, 1988), the Maori in New Zealand (Barrington, 1991) and Gitanos (Roma) in Spain (Enguita, 1999).

The point at which low achievement comes to be interpreted as 'disability' represents the intersection of general and special education. Besides the US, only a few countries have so far explicitly noted that disproportionately low minority-achievement leads to disproportionately high placement in special programs for the 'disabled', but this is confounded by the differing ways in which special services are defined. The US seems to be the most reliant on categorical identification and placement within the general education system, making disproportionality easier to track. In the UK, the designation Special Educational Needs (SEN) provides for children to receive special services within the general education system, on the basis of any 'learning difficulty', usually determined by educationally focused assessment rather than disability categorization (Dyson & Gallanough, 2008). Despite this difference, however, both the latter authors and Strand and Lindsay (2009) have noted a trend of overrepresentation of Black Caribbean students in the SEN categories based on clinical judgment, particularly related to behavioral concerns. In Germany, where students are tracked after the fourth grade into different levels of schools based on their academic achievement levels, Werning, Loser and Uvan (2008) reported that students from low socio-economic (SES) circumstances as well as immigrant students are overrepresented in schools for children with learning difficulties. A pattern of disproportionate underachievement and special school placement of immigrant students has also been noted in Sweden (Berhanu, 2008).

Despite differences in the construction of disabilities, the foregoing cases support the view that historically oppressed or excluded minorities are particularly vulnerable to undesirable educational outcomes and perceptions of low ability, which often lead to further discrimination and separation from the educational mainstream. Most notably, in the Czech Republic, the charge that special classes were being used for the purpose of discrimination was brought to public attention in 1999. The Roma, commonly known as 'gypsies', whose history is marked by exclusion and discrimination across Europe, charged that their children were grossly overrepresented in special schools for the disabled. While the court ruled that discrimination could not

be proven, there was no dispute that 50% of Roma students were in special schools as compared with 1.80% of non-Roma students (European Roma Rights Center, 2005). In Slovenia, where the Roma had experienced enslavement for several hundred years, the government has set up a commission to investigate the overrepresentation of Roma children in classes for children with 'special needs' (Petricusic, 2004).

Another challenge in comparing disproportionality rates across nations is the varying definitions of minority groups. A review of information on discrimination in education against immigrant and non-migrant ethnic minorities in 15 member states of the European Union (Luciak, 2004) pointed to the socially constructed nature of the identity of minorities. Noting the difficulties of gaining accurate comparative data, Luciak cited differences in data collection, terminology, and classification of ethnic groups, different types of ethnic groups and different educational systems. Despite these differences in data collection, Luciak's study revealed that several member states evidenced an overrepresentation of migrant and ethnic minority groups in 'educational institutions with lower academic demands, an overrepresentation in special education, as well as disproportional early drop-out and expulsion rates' (p. 2). As in the studies of indigenous groups cited earlier, these difficulties were evidenced more intensely by students from non-migrant ethnic groups, a pattern that Luciak linked to the distrust in the educational system engendered by 'a history of social exclusion, assimilationist tendencies, and a monocultural orientation in education' (p. 3).

In the US, the concern with race as the main marker of minority status has resulted in a categorization system that simultaneously reflects the nation's over-simplification of race, yet also its increasing racial heterogeneity and complexity. Up until the national census of 2010, the five official 'racial' categories represented a mixture of skin color and ethnic designations, i.e., 'White', 'Hispanic (regardless of race)', 'Black (not of Hispanic origin)', 'Asian/Pacific Islander', and 'American Indian/Alaskan Native'. In that system, it was evident that Hispanic and Asian/Pacific Islander were broadly generalized categories that included a wide variety of racial, ethnic and linguistic features, while White, Black and American Indian/Alaskan Native presumably represented recognizably discrete racial, and, possibly, ethnic groups. It seems the US classification system did not consider color an important dimension in identifying its 'Asian' and 'Hispanic' citizens, but did care to distinguish between citizens who are White, Black, or American Indian. This approach is not as nonsensical as it appears. Rather, it reflects America's historical and continuing preoccupation with a presumed Black/White binary and with the history of exclusion and oppression of what Ogbu (1987) referred to as America's two main involuntary minority groups – those of African origin who were brought to the North American continent through enslavement and the native peoples of the continent who were conquered by the European invasion.

The 2010 census (US Department of Commerce, Census Bureau, 2010) attempted to correct the confusion of race/ethnicity by allowing the addition of several choices based on nationality and also by allowing more than one choice of race. Much of this attempt to discriminate between race and ethnicity targeted Hispanics, but the same effort was not made for the category 'Asian/Pacific Islander', which remains the only category that represents a geographic, not a racial or ethnic, category. An intriguing example of the complexity of the Asian/Pacific Islander group, and of Ogbu's argument that a history of domination portends low educational achievement, is the fact that students in the sub-group, 'Native Hawaiians', are known to be disproportionately represented in special education (US Department of Education, Office for Civil Rights, 2012). This is the only group of Americans of 'Asian' origin whose culture, language, and religion were

outlawed by virtue of conquest by the US, and who therefore fit Ogbu's categorization as an 'involuntary' minority group. Whether or not one agrees with Ogbu's theory, the trends within sub-groups of minorities indicate that historical oppression in the US has left a legacy of structural discrimination that is hard to undo and that continues to have the most negative impact on those ethnic groups who experienced intense historical exclusion.

The concept of the social construction of categories, which was first explicated by Berger and Luckman (1966), is now a well-known framework for understanding how social decisions come to be reified through institutionalization. As with race and minority status, the high incidence disability categories, as defined in the US, are socially constructed categories that have little to do with disability and everything to do with the effects of the society's historical cultural agenda on the education system. I will begin with an overview of the extent of ethnic overrepresentation in the three categories of concern, Severe Learning Difficulty (SLD), Intellectual Disabilities (ID) and Emotional and Behavior Difficulties (EBD). I will then discuss the implications of these patterns, placing the discussion in the context of historical educational structures in the United States.

RATES OF ETHNIC DISPROPORTIONALITY IN THE HIGH INCIDENCE CATEGORIES

The continuing pattern of ethnic disproportionality in the US has been so troubling that the Office for Civil Rights (OCR) has collected data on the high incidence categories since the early 1980s, and the Office of Special Education Programs (OSEP) has done so since 1997. In addition, two panels of the National Academy of Sciences (NAS) have studied the issue (Donovan & Cross, 2002; Heller, Holtzman, & Messick, 1982). In outlining the extent of the problem, I will rely mainly on data from the latter report and from reports to Congress from the OSEP.

In studying the extent of ethnic disproportion in special education, scholars have determined three main ways of comparing rates across groups: A composition index, a risk index and an odds/risk ratio (Donovan & Cross, 2002). The composition index compares the ethnic group's composition in the student population to their composition in the special education program. This method is now considered too cumbersome because both percentages must be known to make the comparison. More efficient and most commonly used now is a two-step process in which a within-group risk ratio is calculated for each ethnic group, and is compared to the rate within other ethnic groups. For example, OSEP data for 2006 indicated that 1.33% of all African-American students were placed in EBD programs, as compared with 1.12% of American Indian/Alaskan Natives, 0.19% of Asian/Pacific Islanders, 0.42% of Hispanics and 0.65% of Whites. Each group's risk index is then divided by the combined risk indices for all groups, to yield a risk ratio (RR), which, as explained by OSEP (2008), 'compares the proportion of a particular racial/ethnic group served under IDEA, to the proportion served among other racial/ethnic groups combined' (p. 54). For example, as shown in Figure 5.1, OSEP's report to Congress (US Department of Education, Thirtieth Annual Report to Congress) stated that Black students have a RR of 2.28 for the category Emotional/Behavioral Disturbance, which means that their likelihood of receiving special education services is 2.28 times greater than all other racial/ethnic groups combined. The RR for Native American/Alaskan Native students was 1.63, indicating that this group was 1.63 times more likely to receive this designation, while Asian students were the least likely of all groups to do

so.

For students ages 6 through 21, how did the proportion of a particular racial/ethnic group served under IDEA, Part B, compare to the proportion served of all of the same age students in all other racial/ethnic groups combined?

Risk ratio for students ages 6 through 21 served under IDEA, Part B, by race/ethnicity and disability category: Fall 2006

Disability	American Indian/Alaska Native	Asian/ Pacific Islander	Black (not Hispanic)	Hispanic	White (not Hispanic)
Autism	0.76	1.29	0.95	0.58	1.34
Deaf-blindness	2.00	0.98	0.91	1.01	1.01
Emotional disturbance	1.63	0.26	2.28	0.55	0.85
Hearing impairments	1.30	1.20	1.10	1.30	0.77
Intellectual disabilities	1.33	0.49	2.75	0.72	0.63
Multiple disabilities	1.41	0.64	1.49	0.67	1.02
Orthopedic impairments	1.00	0.83	0.98	1.17	0.94
Other health impairments	1.30	0.35	1.19	0.48	1.47
Specific learning disabilities	1.81	0.39	1.46	1.19	0.77
Speech or language impairments	1.41	0.74	1.03	0.94	1.05
Traumatic brain injury	1.69	0.59	1.12	0.67	1.23
Visual impairments	1.42	1.01	1.17	0.97	0.91
All disabilities above	1.56	0.51	1.46	0.93	0.89

Source: Reprinted from OSEP, Thirtieth Annual Report to Congress on the Individuals with Disabilities Education Act, p. 54.

Figure 5.1   Race/ethnicity and disability statistics

Figure 5.1 displays the RR for all ethnic groups in the categories of SLD, ID and EBD as reported by OSEP in the Thirtieth Report to Congress on the IDEA (US Department of Education, 2008). In ID, the predominant pattern of overrepresentation is for African-American students, who are 2.75 times as likely as Whites to be so designated. In SLD, American Indian/Alaskan Native students are at the greatest risk of placement, although the rates are high for all minorities except Asians. In EBD, African-Americans are 2.28 times as likely as Whites to be so identified. Overall, despite many regional variations and some shifts over time, the pattern of overrepresentation described in 2002 by Donovan and Cross continues, showing that 'both black and American Indian/Alaskan Native children are at heightened risk for identification as having mental retardation and emotional disturbance …' (p. 82).

Beyond these general patterns there are three notable trends. First, the dramatic changes in these figures over time, which indicates the instability of the categories. According to Donovan and Cross (2002), between 1974 and 1998, the following trends were obtained in the student population as a whole: A reduction in the use of ID from an overall rate across groups of 1.58% to 1.37%; an 'epidemic' (p. 47) increase in the use of SLD, from 1.21% to 6.02%; and an increase in the use of EBD, from just over 0.28% to 0.93%. Further, a comparison of data from OSEP (as reported by Donovan & Cross, 2002) shows that disproportionality in EBD has continued to increase for Blacks, from 1.59 in 1998 (p. 50), to 2.28 in the 2008 OSEP report (US Department of Education, 2008, p. 54). In the ID category, Black overrepresentation has also continued to increase – from a RR of 2.35 in 1998 (OSEP data cited in Donovan & Cross, 2002, p. 45) to 2.75 in the 2008 OSEP report to Congress.

Second, when examined by geographical region, the issue of variable categorization intensifies. Zhang and Katsiyannis (2002), analyzing nation-wide data from the Twenty-Second Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act (IDEA) and the National Center for Education Statistics (NCES), found extensive variability in SLD, ID and EBD placement rates among Hispanics and African-American students according to five geographic regions of the nation. Specifically, rates of placement of Hispanics for all disabilities were significantly higher in the North East than in the other regions, while rates for African-Americans in all three categories varied widely by region. On the other hand, Artiles, Rueda, Salazar and Higareda (2002), arguing for a more discriminating examination of sub-groups within the population of English-Language Learners (ELLs), reported that secondary age ELLs in 11 urban school districts in California were twice as likely as English-proficient students to be placed in special education programs. Overall, Donovan & Cross (2002, p. 67) indicated that, while nation-wide figures showed African-Americans and Hispanics to be not overrepresented in SLD, the rates differed widely across states, including an RR range for Black students from 2.33 in Georgia to 12.19 in Delaware, and an RR range for Hispanic students from 2.43 in Georgia to 8.93 in Delaware.

The third dimension of variability is the level of the school district. One line of work has examined the relationship between socio-demographic features of school districts and patterns of placement by each of the high incidence disability categories as well as by gender (Coutinho, Oswald, & Best, 2002; Coutinho, Oswald, Best & Forness, 2002; Oswald, Coutinho, Best, & Nguyen, 2001). Focusing on two competing hypotheses – either that there is bias in the placement process, or that ethnic groups are differentially susceptible to disabilities – these researchers found such complexity in the data that they concluded that disproportionality is 'multiply determined' (Coutinho et al., 2002, p. 55). For example, just taking the variable of the relative presence of White and non-White students in the school population, the researchers found exactly opposite effects for Black as compared with American Indian students: In the EBD category, placement of Black students increased in the presence of *high White enrolment* while, conversely, EBD placement of American Indian students increased in the presence of *high non-White enrolment*. Moreover, although these researchers' findings indicated that poverty increases the likelihood of special education placement, even poverty worked in opposite directions for Blacks as compared to Whites, with White students more likely to be labeled SLD in higher income neighborhoods, and Black students more likely to be so placed in low income neighborhoods. With relation to the EMR (now ID) category, the opposite was true – that Black students were more likely to be so labeled if they were in higher income neighborhoods with a higher proportion of White peers.

Eitle (2002) found similar, though even more complex patterns. Based on national survey data of 1,203 school districts, she examined the relationships between disproportionality and variables representing school district structural factors, local racial and political-economic structures, and school desegregation politics. Similar to Oswald et al. (2001), Eitle found increased Black overrepresentation in EMR programs in the presence of high White economic resources, but also in districts where there was court ordered school desegregation and in southern regions with a history of de jure segregation. Eitle interpreted these patterns of overrepresentation as 'alternative forms of segregation' (p. 599) and called for research that could delineate the social processes by which placement decisions are made. Recent studies utilizing multilevel modeling point to the power of sophisticated statistical analyses to tease out the complex interactions of race, SES, and gender in this pattern (Sullivan & Bal, 2013).

Overall, the variability across categories, time, and place strongly contest the belief that the high incidence disability categories represent meaningful interpretations of children's difficulties in schooling. Rather, much evidence points to the enduring impact of the confluence of the socially constructed nature of disabilities with America's history of educational sorting of its students.

There are, however, some anomalous patterns in Figure 5.1 (US Department of Education, 2008) that give rise to questions about the low incidence categories. Most notably, the figures for Native American/Alaskan Native students showed some over-representation in several categories that are based on biological evidence rather than clinical judgment, in particular – deaf-blindness (RR = 2.00), multiple disabilities (RR = 1.41), and traumatic brain injury (RR = 1.69). In that year's data, Black students also showed an RR of 1.49 for multiple disabilities, and Hispanics 1.30 for hearing impairments. These data point to the need for research into the social and/or environmental pressures that could account for evidently biological anomalies. A contrary curiosity, however, shows in the RR of 1.47 for White students in the other health impairments category. While there are no clear data explaining this pattern, it is widely known that this category is often used to serve students who have a diagnosis of Attention Deficit Disorder (ADD), which is considered a high incidence condition. Many practitioners speculate that this category is more frequently assigned to White students instead of the more stigmatizing EBD. A similarly intriguing question arises with regard to the RR of 1.34 for White students in the autism category.

THE SORTING AND CLASSIFYING PARADIGM: THE CONVERGENCE OF RACE AND DISABILITY

Race and ability are inextricably woven into the history of American public education. The society's project of racial exclusion was reinforced by the eugenics movement, in which presumed inherited deficits became inseparable from beliefs regarding the racial inferiority of non-White peoples and were reinforced by the 'Americanization' program of the 19th-century common school movement (Tyack, 1993, p. 20).

Until the middle of the 20th century, discrimination on the basis of ability and race represented two parallel streams of exclusion within the educational system. The school desegregation ordered by the *Brown v. Board of Education* (1954) decision represented the first official step towards the vision of education as a vehicle of equity. While the moral power of this decision remains unquestionable, it is also true that it resulted in at least two unintended consequences. First, racial desegregation, despite representing the beginnings of equal access to education, meant a loss of solidarity and a re-framing of identity for many African-American children who had to struggle with the experience of being rejected and viewed as deficient in integrated schools (Ferri & Connor, 2005; Irvine & Irvine, 1983; Morris & Morris, 2000; Siddle-Walker, 1996). Second, the reluctance of many states to comply with the Brown ruling resulted in the use of classes for 'slow' or 'mildly retarded' students as a means of continuing the marginalization of African-American and other traditionally devalued groups.

This covert form of racial segregation was officially recognized by the courts in the 1971 case of *Johnson v. San Francisco Unified School District* (Prasse & Reschly, 1986). Of several subsequent cases charging racial and linguistic discrimination in IQ testing and tracking (*Diana v. State Board of Education*, 1970; *Guadalupe Organization v. Tempe Elementary School District No. 3*, 1972; *Larry P. v. Riles*, 1979; *Marshall et al. v. Georgia*, 1984), the two most famous, Larry P. and Marshall, resulted in opposite judgments. The court in the Larry P.

case concluded that IQ tests were culturally biased against African-Americans while the courts in the Marshall case disagreed. Despite different outcomes of these cases, however, the continuing salience of race was underscored by the fact that in neither case did the school districts deny the existence of significant overrepresentation of African-Americans in low tracks and programs for the mildly retarded. Even if, as Reschly, Kicklighter and McKee (1988) suggested, the discrepant placements were a result of poverty rather than race per se, this in itself points to the enduring intertwining of racism, economic inequity, and educational outcomes.

THE CATEGORICAL FRAMING OF DISABILITY UNDER THE EHA/IDEA

This history of classification and exclusion by race and disability left an indelible mark on the special education system. Essentially, the provisions of the EHA superimposed one more layer of categorization upon a system already built on a sorting and classifying paradigm, into which racial and socio-economic inequities were tightly interwoven. In the words of Skrtic (1991), special education represents 'the institutional practice that emerged in the 20th century to contain the failure of public education to realize its democratic ideals' (p. 46). The categorical framing of the high incidence categories of SLD, ID and EBD purported to construct them as distinctly different conditions, but this effort has been confounded by definitional dilemmas that reflect close ties to issues of race and socio-economic status.

The conundrum of Intellectual Disability vs. Learning Disability

The construct of Mental Retardation, now referred to as Intellectual Disability (ID), is defined as 'substantially sub-average' development over a range of developmental tasks, to be determined by a score of 70 or less on a standardized IQ test. Prior to 1969, the cut-off point was 85, which underscores the socially constructed nature of the definition. The construct of SLD purports to represent an entirely different population, and was proposed in the 1960s as a category that would encompass children who were having serious difficulties in acquiring academic and/or communication skills, but whose overall intelligence appeared to be within the normal range.

The SLD construct, first defined by Kirk (1962), grew out of the early work of researchers such as Strauss and Werner (1942) whose discovery of certain deficits in reading, writing, and/or communication among war veterans with known brain injury led to speculation that the presence of such deficits in otherwise normally developing children might also indicate brain injury. Despite the leap in logic in making this inference, the field of special education quickly became enamored of the notion that normally-developing children who demonstrated deficits in school learning had probably suffered 'minimal brain injury'. Although that original concept has since been discredited, research has continued in search of an organic cause for the symptoms of SLD. In a series of studies, Shaywitz et al. (2003), using brain imaging technology during the performance of a reading task, noted differential patterns of brain activity between good readers and poor readers. Up to this time, however, these studies (Shaywitz & Shaywitz, 2009) have not provided evidence of the direction of these effects, that is, of whether differential brain activity is a result or a cause of deficits in reading skills. Moreover, their finding that the brain activity of poor readers changed after intensive instruction in reading strongly suggests that the brain patterns are the result of learned reading habits and not the other way around.

The notion of an intrinsic cause remains a central tenet of both ID and SLD constructs. In the case of ID, it was sufficient to require that developmental delays be manifested before the age of 18, with measures of deficit on tests of both intellectual and adaptive functioning. For SLD, however, the tenet of intrinsic deficit resulted in a convoluted set of criteria for diagnosis, much of which revolved around the exclusion of competing explanations. Thus, the definition relied upon the logic of default, by which the clinician should determine that the child's difficulties were caused *neither* by other disabilities, such as mental retardation or sensory impairments, *nor* by social and environmental disadvantages such as poverty or family stress. Another central criterion was that there be evidence of a discrepancy between a child's intellectual potential as measured on an IQ test and his/her actual achievement. Thus, the element of *unexpected underachievement* was essential to a diagnosis of SLD.

Keeping in mind the history of racist beliefs that were only just being challenged at the time of the emergence of the SLD construct, it is not hard to see how the foregoing definitions would come to work, in a paradoxical way, against children of color, by making it less likely that low achievers within these groups would be assigned an SLD label. First, SLD was clearly a more desirable diagnosis than ID, since it is less stigmatizing to be seen as having accidental damage to specific areas of the brain, than as having global deficits that affect one's total development. Sleeter (1986, 2010) argued that the differential social power of Whites was the driving force behind the pattern that quickly emerged in the years just preceding the EHA – a pattern of disproportionate incidence of White students in the SLD category, as contrasted with the disproportionate incidence of non-White students in the ID category. Updating this argument, Ferri (2004) noted that, as the placement of Black and Hispanic students in SLD programs becomes more common, there is an increasing focus on 'dyslexia and research aimed at identifying subgroups of students labeled as having SLD' (p. 512). Ferri queried whether this development might 'serve the unanticipated function of resegregating the category of SLD in ways that mirror earlier racial hierarchies' (p. 512).

In addition to the relationship between social desirability and social power, there was the fact that the SLD definition itself would exclude many children whose environments could be construed to account for their learning difficulties – that is, children living in poverty, a disproportionate number of whom continued to be non-White. Further, as Collins and Camblin (1983) cogently argued, the cultural bias inherent in IQ tests meant that children of color would be likely to earn scores that were too low to allow for the required discrepancy between IQ and achievement. In the absence of this discrepancy, minority children were more likely to be diagnosed as ID than SLD.

The result of these definitional and social discrepancies between the ID and SLD categories was that, from the time of the emergence of the SLD category in the 1960s until close to the end of the century, the overrepresentation of African-American students in special education occurred in the ID category. Over the past decade, however, an increase in representation of Black students in the SLD category has been noted (Gottlieb, Alter, Gottlieb, & Wishner, 1994; MacMillan, Gresham, & Bocian, 1998; MacMillan & Reschly, 1998).

Coutinho et al. (2002), noting that increasing poverty was associated with higher rates of Black, Hispanic, and Asian male placement in SLD programs, concluded that the clause excluding environmental effects was not being applied, and pointed out that this could be construed as a biased process that could result in disproportionately large minority placements in SLD. These authors observed, however, that the converse to

this argument could also be true – that if we believe that poverty and other environmental detriments do in fact contribute to SLD, then to exclude them would mean excluding many minority students from services they need. Indeed, the conundrum of the SLD category's desirability/undesirability was reflected in the case of *Crawford v. Honig* (1994), in which African-American parents charged that their children were being excluded from needed SLD services by virtue of the California courts ruling (*Larry P. v. Riles*, 1979), against the use of IQ tests for any purpose.

The debate around the IQ achievement discrepancy model has resulted in recent developments in research on SLD, which propose an approach, now known as Response to Intervention/Instruction (RTI), which seeks to rule out the possibility that poor achievement may simply be the result of poor instruction. Thus, identification of SLD would be made only after intensive, tiered instruction has been implemented (e.g., Vaughn & Fuchs, 2003). The strength of this RTI model was marked by a symposium of researchers organized collaboratively by Vanderbilt University and the University of Kansas (National Research Center on Learning Disabilities, 2003), and was acknowledged by the 2004 reauthorized IDEA as one alternative to the IQ-discrepancy model, and is now allowed by 43 states and mandated by seven (US Department of Education, 2011).

Emotional Disturbance, the third high incidence category with which we are concerned, is equally problematic in terms of definition and equally susceptible to social influences and to co-morbidity with cognitive difficulties such as SLD or ID (Montague & Rinaldi, 2001). The federal regulations for EBD require that a child consistently, and in different settings, exhibit mood and relationship difficulties that cannot be explained by other disabilities. While the more extreme end of the spectrum includes mental illnesses such as schizophrenia, at the milder end it is evident that professional judgments will vary according to personal tolerance of non-compliance as well as to the social and cultural norms of different groups. Several authors have pointed to the many ways in which culturally conditioned behaviors may be interpreted depending on the cultural lens with which they are viewed (Cartledge, Kea, & Simmons-Reed, 2002; Obiakor et al., 2002; Townsend, 2000). Further, an increasing body of literature notes the disproportionate use of punitive disciplinary practices against African-American youth (Leone, Walter, & Wolford, 1990; Maag, 2001; Skiba, Michael, Nardo, & Peterson, 2000).

In sum, the ambiguities and contradictions outlined above, and the historical ties of the categorizing paradigm to racism and classism in the US, undermine the validity of the high incidence disability categories. The NAS report (Donovan & Cross, 2002) was clear in its assessment of these ambiguities:

> In terms of cognitive and behavioral competence, students fall along a continuum … there is no black and white distinction between those who have disabilities or gifts and those who do not. At the far ends of the continuum there is little dispute about a child's need for something different … But as one moves away from the extremes, where the line should be drawn between students who do and do not require special supports is unclear. A variety of forces push on the lines from opposing directions … (p. 25)

This variety of forces, they argued, included 'key aspects of schooling itself' (p. 27).

Coming as it does from the most influential and comprehensive publication on the topic of overrepresentation, this statement reveals the essential fallacy of the notion of high incidence 'disabilities'. If it is impossible to say where low achievement ends and disability begins, why should the field continue to use the frame of disability for the provision of services to students in the 'high incidence' categories? In the

absence of 'a medically diagnosed disability', is the term 'disability' in fact a misleading misnomer that inappropriately implicates the abilities of minority children and youth? It is evident that these categories are social constructions that fall far short of science.

DISPROPORTIONALITY AND SOCIETAL INEQUITY

Along with many others (Artiles, 2003; Dyson & Gallanaugh, 2008; Hilliard, 1995; Patton, 1998; Skiba, Knesting, & Bush, 2002), I contend that minorities' disproportionately large share of difficulties in schooling represents an extension of the societal inequities to which historically oppressed minorities continue to be disproportionately subjected. As Wilson (1998) emphasized, 'the impact of the structure of inequality' (p. 508) must be understood as the context in which inequitable outcomes occur for individual members of minority groups in all areas of society. To name but a few from Wilson's list – education, residential patterns, labor market, financial markets, government policies and corporate decisions. Special education, as a discrete arm of the education system, cannot be the sole answer to this mountain of inequity, especially because it perpetuates the deficit view of minority children.

The uniqueness of special education: The criterion of intrinsic deficit

The argument that ethnic disproportionality in special education represents inequity reflects a painful paradox: Why should a program that provides costly and specialized services be construed as inequitable? In the words of MacMillan and Reschly (1998), '*Something* weighs so heavily on the minds of critics that it more than offsets these apparently desirable features' (p. 22). These authors concluded that disproportionality is seen as problematic because of minority stakeholders' suspicion that it is tied to beliefs about inferior genetic endowment, and because special education programs are not seen to be effective. These are, indeed, two powerful concerns. But there is yet another, which is the simple fact that special education is unique in the educational system in its focus on intrinsic deficit. This alone is enough to render it suspect, except in the case of clear-cut (low incidence) disabilities, where performance deficits are incontrovertible, and where, for the most part, ethnic disproportionality in placement *has not* been noted. Thus, for example, while Head Start, Chapter I and other compensatory programs for the poor are perceived as additions to children's educational opportunities, special education's unique focus on deficit in the high incidence disabilities is marked by four concerns: Placement usually means removal of the child from the general education program; it is often, though not always, imposed rather than freely chosen by parents; there is a requirement for testing to confirm a 'disability'; and there is a societal stigma attached to the concept of disability. Against the context of historical and continuing discrimination, why should minorities trust this process?

Inequity and risk in families, communities and schools

The second NAS report, by Donovan & Cross. (2002), in its search for causes of disproportionality, pointed to both home and school environments. In considering the former, the report focused on biological and environmental conditions typically occasioned by poverty, such as high lead content in urban homes, iron deficiency in the diets of infants, and poor access to health care. These were linked to problems such as

developmental delay and hyperactivity. The social conditions identified implicated both socio-economic status and ethnicity or cultural behaviors in matters such as drug or alcohol abuse, child rearing practices, and early educational activities such as introducing children to print or to basic numeracy.

These arguments gave rise to two concerns by critics. First, by not discussing the policy context that allows for such environmental inequities, the report gave the impression of a 'blaming the victim' argument by which minority groups' choices and behaviors were seen as the sources of their children's difficulties (Harry, Klingner, & Hart, 2005). As an example of the effects of policy contexts, the NAS itself, within the same year as its Donovan & Cross report (2002), published a separate report (NAS, 2002) presenting resounding evidence of active discrimination against minorities in health care. The second objection to the NAS' focus on environmental effects was that the report's analysis did not succeed in linking the detrimental practices and influences to actual special education placement rates (Losen & Orfield, 2002).

The notion of lasting effects of detrimental family and community environments has both an intuitive and research-based appeal. For example, the work of Sameroff, Seifer, Baldwin and Baldwin (1993) analyzed the effects of poverty in terms of a group of risk factors, which, when combined, can have devastating effects on children's mental and physical health. These researchers argued that, since the IQ scores of children in poverty were found to remain stable when tested at early childhood and again in early puberty, this indicates the lasting power of early negative influences. In a similar argument, Blair and Scott (2000) concluded that neonatal factors such as low birth weight and mother's education accounted for low IQ scores in adolescence. There is, however, an important missing piece in these correlational studies, namely, the effects of schooling in the years that intervened between the early measures and IQ testing at puberty.

Indeed, the lack of attention to the mediating power of 'school risk' (Keogh, 2000) is a serious omission. The reason schooling itself cannot be excluded from a list of risk factors in a study based on IQ scores is that IQ scores represent knowledge and skills that children have had the opportunity to learn both in their homes and schools. A look at the popular WISC (Weschler, 1974) test, for example, makes it clear that much of the verbal content represents information that can be learned at the dinner table, from the media and/or in the classroom. The NAS (Donovan & Cross, 2002) report described these tests as 'measures of what individuals have learned … reflecting broad, culturally rooted ways of thinking and problem solving' (p. 284). Thus, while a 4-year-old child's home may not have prepared him/her well for the kinds of information valued on IQ tests, it would be reasonable to expect that 6 or 7 years of effective schooling could make a difference to the same child's scores at age 14. When children's scores remain stable on a test that places high value on school learning, it should not be assumed that innate limitations account for this pattern. It is possible that the child has not received adequate schooling. Numerous studies of the quality of curriculum, instruction and human as well as material resources in schools verify that children living in poverty and many English language learners receive distinctly inferior schooling (Anyon, 1997; Darling-Hammond & Post, 2000; Harry & Klingner, 2006; Kozol, 2005). As Skiba et al. (2002) argued, the reliability of standardized test scores may be an accurate summary of 'the tragic history of limited cultural and educational opportunity that led to those depressed capacities' (p. 70).

Inequity and risk in the special education placement process

Beyond the provision of poor quality instruction prior to referral, the process that leads to special education placement is often another contributor to the over-representation of minorities in special education. The first NAS panel on disproportionality (Heller et al., 1982) argued that disproportionality should be considered problematic if either the precursors to, or the outcomes of placement are biased or inadequate. Thus, bias in the referral process, inappropriate or biased assessment, and ineffective instruction in the special education program are all important.

It is well established that the vast majority of students who are referred for special education evaluation will be tested and the vast majority of those tested will be placed (Gerber & Semmel, 1984; Ysseldyke & Algozzine, 1983). According to Donovan and Cross's (2002), review of this topic, referred children, regardless of ethnicity, typically do exhibit severe academic and behavioral deficiencies for their age. Nevertheless, Harry and Klingner's (2006) ethnographic investigation of referral processes found wide variability across 12 schools in the same school district, and concluded that although referrals for academic reasons were based on more objective criteria than were referrals for behavioral issues, even academic referrals were seriously influenced by local norms and by concerns about state-wide testing. Similarly, Mehan, Hartwick and Meihls (1985) found that referral and placement decisions were more driven by organizational concerns than by children's needs.

Another thorn in the side of the special education process has been the longstanding debate about potential bias in testing. While it is beyond the scope of this review to detail this debate, the highlights must be mentioned. According to Travers (1982) key interpretations of this issue turned on a contrast between technical and holistic interpretations of bias, the former focusing on bias in specific test items, as contrasted with the latter, which examine the possibility of an overall depressive effect on a group's scores as a result of the cultural dissonance both in the process and content of testing. Further, Skiba et al. (2002) place the issue in the larger context of societal inequity, which is also the central argument of this chapter. They state that:

> Neglecting the contribution of educational opportunity when interpreting minority test scores may in fact introduce statistical error, regardless of whether a specific test can be shown to be 'unbiased' … Failure to take into account issues of limited educational opportunity for disadvantaged students thus increases measurement error. (p. 71)

The testing process itself has also come under scrutiny. In Harry and Klingner's (2006) ethnographic study, observation and interview data identified six sources of social influence on the assessment: Teachers' informal diagnoses of children's problems; school personnel's negative perceptions of children's families; external pressures for placement, such as the desire to remove low achievers from state-wide testing; the exclusion of information on classroom ecology; variable choice and implementation of assessment instruments; and psychologists' varying philosophical orientations. The researchers concluded that the power of 'unofficial practices and influences' undermined the belief that the assessment is either scientific or objective.

Overall, regardless of proofs of the technical adequacy of IQ tests, the logic of the holistic argument is easy to see. In Hilliard's (1995) words: 'Item content is simply a matter of the arbitrary choices of an in-group of item writers. Certainly the Afro Americans are poorly represented, if at all. To many Afro Americans the "norm" is abnormal' (p. 197).

Inequity and risk in special education programs

As many have observed (e.g., Heller et al., 1982; MacMillan & Reschly, 1998), the problematic nature of ethnic disproportionality in special education cannot be discussed without asking whether its outcomes are positive and equitable. Key dimensions of concern are the law's requirement that children be placed in the Least Restrictive Environment (LRE), relative drop-out rates and relative rates of return to the general education program.

Restrictive programming appears to be the most detrimental effect of the high rates of overrepresentation of Black students in ID and EBD programs (Fierros & Conroy, 2002). Despite the fact that the case of *Corey H. et al., v. Board of Education of the City of Chicago et al., and the Illinois Stated Board of Education et al.* (1992) resulted in stringent requirements that the school district and the state of Illinois correct its pervasive use of restrictive placements for students with ID (Soltman & Moore, 2002), the disproportionate segregation of minorities through restrictive programs continues to be evidenced across the country. The Thirtieth Annual Report to Congress (US Dept of Education, 2008) indicated that, in 2006, while approximately 51% of all students with disabilities were served inside the regular classroom for more than 80% of the day, when this is disaggregated by ethnicity, only 44.8% of Black students met this criterion as compared with 57.7% of Whites. Moreover, 24.8% of Blacks were served inside the regular classroom for less than 40% of the day as compared with 14% of Whites.

Parrish (2002), in examining California placement data, found glaring disparities on several dimensions related both to the cost and the quality of services. For example, of all the children served in the EBD category in California, Hispanic students represented 47% of those placed under the jurisdiction of the California Youth Authority, compared to 15% of White children. The situation was reversed in costly private special education residential schools, where Hispanics represented only 15% of the students, as compared with 58% of Whites. Thus, Hispanic students were roughly three times more likely to experience what Parrish described as the 'more punishing than remedial' (p. 27) services of the California Youth Authority than were their White peers. The California data also showed that Black students were more likely to be placed in the most restrictive settings than were Whites, who generally were only so placed when their need for intensive services was high.

With regard to post-special education outcomes, accurate rates of exit from special education are difficult to find. OSEP data on exit are framed in terms of just about all means of exit except return to general education. Graduation and drop-out rates for students in special education are further cause for lack of confidence in the efficacy of special education, and further reinforce the performance patterns of the ethnic groups. OSEP's Thirtieth Annual Report to Congress (US Department of Education, 2008) indicated that almost a third of students with SLD and over a half of those with EBD failed to graduate. Moreover, while the report shows that, overall, drop-out rates decreased and graduation rates increased between 1996 and 2006, the pattern of variability by ethnicity continued. For example, of students served under IDEA, Black and Hispanic students had the lowest graduation rate (41.7%) as contrasted with graduation rates of 68.4% for Asians and 63.8% for Whites.

CONCLUSION

In conclusion, there is no question that the disproportionate placement of minorities in special education

reflects deep societal inequities embedded in the educational system. Notwithstanding the historical importance of the disabilities movement and its culmination in the 1975 EHA, the direction of special education is now in need of revision. What were once two parallel streams – exclusion by race and by disability – have converged in the special education system. Further, special education's categorical framing of the high incidence disabilities has resulted in decision-making that can be described, at best, as arbitrary, at worst, as discriminatory. The resulting placement patterns are so variable and contradictory as to defy accurate analysis and to produce outcomes that are seriously questionable. Overall, the ambiguities of the high incidence categories indicate that it is not worthwhile to continue using the construct of disability to provide services to children at the low end of the achievement spectrum. Rather, special education needs to be re-conceptualized as a point on the continuum of instruction, rather than requiring a redefinition of struggling learners as 'disabled' and an arbitrary placement into categories of deficit.

To reconceptualize special education will require a restructuring of the funding, hiring, and resource provisions that perpetuate inferior general education schooling for minorities. As recommended by a comprehensive report by Rouse, Brooks-Gunn, & McLanahan (2005), universal preschool opportunities should be a sine qua non in this wealthiest of nations. Incentives for teachers in the form of additional stipends, decreased class size, administrative and material supports, and on-going professional development are essentials if the neediest children are to receive equitable schooling. Referral for special services should be reconceptualized to mean referral for specialized assistance, not for removal from the mainstream of general education. Assessment of children's learning and behavioral difficulties should be educational assessment, whose purpose is to determine instructional practices that will assist the struggling student. Instructional support should be offered by specialists trained in remediation, with no need for categorical labeling or placement.

Indeed, important revisions have begun with the reconceptualization of the SLD category, the implementation of the RTI model in many school districts around the US, and the requirement under IDEA 2004 that states must develop and implement policies and procedures to identify and address inappropriate identification or disproportionate representation of students of color in special education. As argued by Johnston (2011), the acceptance by all states of the use of the RTI model, either in tandem with or instead of the traditional IQ-discrepancy formula for LD, indicates an attempt to resolve issues of SLD definition, the high rates of SLD designation, ethnic disproportionality, and the increasing research base supporting the effects of early intervention. Undoubtedly, however, despite an increasing research base on the effectiveness of RTI (Johnson, Mellard, Fuchs, & McKnight, 2006), there is as yet no clear data on the challenges of implementation in school districts.

With regard to the requirement for state accountability, the states' response reflects a total lack of commitment to the intent of the law. Since there has been no agreement on what constitutes 'significant' disproportionality, statistical methods for reporting disproportionality and the criteria for significance vary widely across states (Cavendish, Espinosa, Mahotiere, & Menda, under review). Indeed, Albrecht, Skiba, Losen, Chung, and Middleberg (2011) noted that, between 2005 and 2008, states increased their RR criteria and, by 2008, no state had set a criterion lower than 2. This means that every state agrees that it is alright for ethnic groups to be represented in special education disability categories at a rate double that of other groups, and some agree that up to five times the likelihood of placement is acceptable.

In summary, the centerpiece of the entire argument of this chapter is the need for the field to recognize that the obsession with categorization further entrenches the hegemony of a norm based on the achievement levels of the mainstream of the society. Those levels are the result of home, community, and school preparation, not of intrinsic capability. Thus, the criterion for special education services should be, simply, a specified level of achievement, rather than ambiguous 'proof' of some innate deficit.

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6

A Sociological Perspective on Special Education

Sheila Riddell

INTRODUCTION

This chapter identifies social theories currently in play in the field of special education, drawing on literature from Scotland, the wider UK and Europe, with some reference to North America and Australia. Particular reference is made to the Scottish policy context, placed within a wider UK and national context. An underlying assumption is that theories of special/additional support needs and disability are crucial in terms of understanding policy responses in school and the wider society. As Kirp (1982) noted, the way in which a 'social problem' is constructed says a great deal about how it will be resolved. In this chapter, I suggest that two broad perspectives relating to social theory may be identified in research and policy making in the field of special educational needs, namely functionalist and critical paradigms. Within a functionalist paradigm, it is assumed that current approaches have developed in order to meet children's needs most effectively, and that amongst these it is possible to identify best practice. Critical approaches, which dominate within the sociology of special education, seek to problematize existing practice, asking more demanding questions about which social interests are being served by existing arrangements and dominant discourses. For example, Fulcher (1989) observed that the discourse of inclusion can be deployed for tactical purposes by different interest groups to justify almost diametrically opposed practices.

Drawing on the sociology of special education, which deconstructs theories and practices, this chapter examines the way in which functionalism and critical social theory have been applied in special education policy, practice and research. Functionalist thinking is rooted in the ideas of the French sociologist Emile Durkheim, which were set out a hundred years ago. Durkheim developed the view that social cohesion was a natural and desirable state, and conflicts which threatened this social stability were to be repressed. The aim of the healthy society was to include as many people as possible, and neutralize or reform those at the margins. Exclusion was thus seen as residual rather than endemic (Levitas, 1998). Critical paradigms, on the other hand, rather than seeing conflict and challenge as abnormal, regard these as manifestations of unequal power relations or social interactions. Accounts located within critical social policy and socio-cultural theory serve as important challenges to common sense notions of how the world is and should be organized, particularly during a period of growing inequality and economic crisis (Organisation for Economic Co-operation and Development [OECD], 2008).

THE CURRENT STATUS OF SPECIAL AND INCLUSIVE EDUCATION

At the present time in most developed countries, in line with international agreements, it is evident that the trend is for disabled children and those with special/additional support needs to be included within mainstream schools. Following the publication of the Salamanca Statement (UNESCO, 1994) inclusion has

been accepted as the policy orthodoxy of the European Union and member states. Article 24 of the UN Convention on the Rights of Persons with Disabilities underlines the importance of inclusive education as a means of enabling disabled people of all ages 'to participate effectively in a free society'. Article 24 specifies that states have a responsibility to provide reasonable accommodations and appropriate support tailored to individual needs.

Vislie (2003) suggested that from the 1970s onwards, there has been a clear trend across Europe towards more inclusive educational provision, although progress has been rather slow. Rather than disappearing altogether, separate provision has taken different forms, with considerable variation between different groups of countries. In Northern and Western Europe, countries such as Norway, Sweden, England and Scotland have created broadly inclusive systems, although in all four countries there is evidence of increased use of special classes and special units attached to mainstream schools. The use of special units may blur the extent to which segregation is taking place, since children may spend large parts of their day in separate settings, but be officially enrolled in mainstream school (Riddell, 2012, chapter 2). There is also concern in the UK about the use of 'illegal exclusions', whereby parents are requested to keep their children at home until a more suitable placement can be found, but no official record is kept of this practice (Reid, 2009).

Significant use of special schools continues to be evident in countries in Central and Eastern Europe, where the Soviet tradition of individual pupil deficit or 'defectology' was strongly embedded (Radoman, Nano, & Closs, 2006; Tsokova & Becirevic, 2009). Countries seeking accession to the European Union have been under considerable pressure to adopt more inclusive practices in their school systems, but such changes have sometimes been cosmetic. For example, in Lithuania, Kugelmass and Galkiene (2003) suggest that the development of inclusive education has been hindered by a range of factors including the following: lack of competent and appropriately trained educators; a tendency to blame families for the problems of their children; and financial difficulties facing countries during a period of economic and political transition.

To summarize, despite the international dominance of discourses of inclusion, it is evident that exclusive practices persist and special settings are often rebranded as particular forms of mainstreaming. In the following sections, I review the broad sociological theories which underpin special and inclusive education and the types of research which have been informed by particular approaches.

FUNCTIONALIST PARADIGMS

Essentialist or individual needs approaches

Early approaches to special education were informed by eugenic ideas which were in the ascendancy in Europe and the US in the late 19th and early 20th century (Kerr & Shakespeare, 2002). Francis Galton distinguished between positive eugenics, which focused on encouraging good stock to breed, and negative eugenics, which focused on discouraging the mentally and morally unfit from reproducing. Those exhibiting mental or physical deficiency should be isolated from the rest of the population to avoid contamination. IQ tests, developed in the early 20th century, provided educational psychologists with an additional tool to use in determining whose intelligence might be deemed to fall outwith the normal range. Lubeck and Garrett (1990), describing the construction of the 'at risk' child in the USA, noted that American pioneers of mental testing believed that intelligence was inherited and fixed rather than malleable, and was linked to racial origin.

Henry Goddard, an early proponent of mental testing, was invited by the government to administer the Binet Simon scale and other performance tests to recent immigrants at the Ellis Island receiving station. Goddard's work, published in 1917, showed that around 80% of Jews, Hungarians, Russians and Italians were feeble-minded.

Translated into practice, eugenic thinking was sometimes brutal in its insistence on incarceration, but could sometimes adopt a more benevolent face, suggesting that identifying the weak and feeble-minded was essential in order to provide appropriate treatment. Tomlinson (1982) noted that the Egerton Commission of 1889 recommended access to basic vocational education for the blind to prevent them becoming a burden on the state.

Early eugenic social theories played a pivotal role in shaping the emergent systems of special education in the US and Europe. In most developed countries, the focus was on identifying individual deficits, leading, at least in theory, to an appropriate form of special placement. In Scotland, for example, prior to 1980, individual assessments were geared to the identification of the following nine legal categories of handicap: deafness, partial deafness, blindness, partial sightedness, mental handicap, epilepsy, speech defects, maladjustment and physical handicap. If a child was suspected of having one of these conditions, parents were legally obliged to present the child at a clinic for medical assessment with a view to ascertaining whether 'special educational treatment' was required. In urban areas, special schools were set up to deal with each of these conditions, whilst in rural areas children were either educated within local schools or sent to residential establishments at some distance from their homes. Until 1974, a certain proportion of children were deemed 'ineducable and untrainable', and the health board rather than the local authority had responsibility for their care.

Following the Warnock report (Department for Education and Science, 1978), legislation in England and Scotland replaced the legal categories of handicap with the overarching category of 'special educational needs' (SEN). This new category was intended to emphasize that SEN were not solely located in the child, but signalled a mismatch between school provision and the conditions required by the individual child to make educational progress. Control of the special education terrain shifted from medical practitioners to educational psychologists, who orchestrated the process of assessment and recording. Teachers were accorded only a subordinate role in assessment and diagnosis. Despite the apparent rejection of the deficit approaches, children's principal difficulties were still recorded and published by the Scottish Government.

In Scotland, the concept of SEN was replaced under 2004 legislation by that of additional support needs, reflecting the view that failure to make progress in education may arise as a result of social problems as well as learning difficulties and disabilities. The difficulty of moving away from categories of deficit, however, is clearly indicated by the Scottish Government's decision to gather and publish data on reasons for support. These cover the traditional categories of learning disabilities, sensory and physical impairments, but also cover social factors such as interrupted learning, having English as an additional language and being looked after by the local authority.

To summarize, the individualized, or essentialist approach, which regards mental or physical deficits as being rooted in the individual, is the traditional approach to special education throughout the developed world, with the vast majority of countries adopting SEN classification systems (OECD, 2007). Challenged in the late 1970s and early 1980s, classification systems are currently enjoying something of a resurgence. Parents and voluntary organizations, supported by allies in medicine and psychiatry, have campaigned for the re-

adoption of particular labels such as ADHD (Graham, 2010; Lloyd, Stead, & Cohen, 2006), often with a view to accessing resources or avoiding more stigmatizing categories. The individual needs approach also creates a triangular tension for resource allocation, with parents, professionals and bureaucrats pulling in different directions. In practice, professionals were often co-opted into the work of the bureaucracy, ensuring that their assessments did not conflict with budgetary controls (Riddell, 2006, chapter 3). It is also worth noting that, despite the extensive advocacy of individualized assessment and teaching approaches in the professional literature, there is little research-based evidence to suggest that most children with SEN require provision which is completely different from that which is delivered to the majority of children. The vast majority of children with SEN, it would appear, require adaptations related to the intensity of support and the pace of learning but not an entirely different curriculum and pedagogy (Lewis & Norwich, 2005).

Managerialist or systems-based approaches

A particular branch of sociology of special education draws on a range of approaches to management, based on the fundamental assumption that if organizational systems are correctly aligned, public sector institutions will operate smoothly and effectively. In the UK, from the early 1980s to the mid-2000s, the focus was on making mainstream schools more inclusive by reformulating the curriculum, pedagogy and classroom organization. For example, Hart, Dixon, Drummond and Macintyre (2004) maintained that if mainstream schools were geared to provide additional support as part of normal provision, then special needs labels would be redundant.

The role of the learning support teacher or 'special educator' in comprehensive schools has dominated discussion in the professional literature. For example, Dyson and Gains (1995) point out that the emergence of the 'whole school approach' resulted in problems of 'uncertainty, ambiguity and conflict', as learning support teachers, known as Special Educational Needs Coordinators in England, were expected to adopt significant management and legal responsibilities for which they often lacked training and institutional back-up.

Management discourses within special education became increasingly dominant with the advent of new public management from the 1980s onwards. Informed by the ideas of economists such as von Hayek, and drawing on behaviourist psychology, the central thesis of new public management was that everything associated with the workplace can and should be measured. Targets were promoted as essential to human motivation and external regimes of accountability were deemed necessary to discipline the actions of otherwise self-serving professionals (Clarke & Newman, 1997; Pollitt, 1993). Within the field of special education, questions were increasingly asked about the performance of children with SEN and the extent to which the funding allocated to this area of education was delivering improved results. In the UK, this type of thinking resulted in the promotion of Individualized Educational Programmes (IEPs) as a means of charting individual progress and assessing the effectiveness of interventions. Research on the implementation of IEPs in Scotland suggested that whilst teachers welcomed the opportunity to chart the progress of individual children against personal goals, they were hostile to the idea of accountability at the level of the institution or the individual teacher (Banks et al., 2001).

In the US, IEPs have long been regarded both as a means of accountability as well as a formal document

specifying the additional resources to be allocated to individual children (Russo & Osborne, 2011). Instituted under the terms of the Education for All Handicapped Children Act 1975 (PL 94–142), about 12% of the pupil population in US schools has an IEP, compared with about 4% of the Scottish school population. Gallagher (1972) argued that legal contracts should be established 'with parents as equal partners in the plan, using objective measures of goal attainments, and developing punitive consequences of failure to deliver' (Goodman & Bond, 1993, p. 411). Legal sanctions for failure to achieve objectives were necessary, according to Gallagher, because 'bureaucracies such as educational systems will move institutionally only under threat or duress' (Gallagher, 1972, p. 531).

More recently, there has been concern that the requirement to include all students in states' wider target-setting and testing programmes may widen the use of IEPs and incentivize the use of extensive curricula and assessment accommodations (McLaughlin & Tilstone, 2000, p. 57).

To summarize, policy-making in the field of SEN has tended to be informed by functionalist assumptions about assessing individual needs and/or managing special education systems to maximize efficiency. Research has often been geared to supporting these enterprises, but has also revealed difficulties in using individual assessments to determine optimal types and levels of support and in using individual targets to monitor systemic efficiency.

Critical paradigms

Materialist or critical social policy approaches

Materialist approaches in the sociology of education have sought to understand the link between education, the reproduction of social relations within capitalism and the way this relationship is regulated by the state. In the 1970s, neo-Marxist writers such as Bowles and Gintis (1976) suggested that social and curricular divisions in school corresponded directly to those in the labour market. Children in vocational programmes were prepared for their future role in blue collar jobs, whilst the academic elite were groomed for their future place in the professions. The label 'learning difficulties' might be applied to some of these children, but academic excellence was not expected of those destined for manual work and therefore poor literacy and numeracy skills were regarded as less of a problem.

Willis (1977), in his classic text *Learning to Labour: How Working Class Kids Get Working Class Jobs*, presented a slightly more complex picture. Working class boys who understood that their future lay in hard manual labour responded by celebrating a particular version of masculinity. School was to be treated as a 'laff', since it had very little relevance to their future lives. Studious boys were labelled the 'ear 'oles' and were treated with the derision suggested by their name. Girls who conformed to the role of the supportive home-maker were dubbed 'good as gold'. Willis characterized the lads' rejection of schooling as a form of heroic resistance, since it allowed them to assert a degree of agency, whilst forcing them into a life of exploitation. Were the same group of lads to be observed in a contemporary classroom, the label of behavioural difficulties, learning difficulties or ADHD might well be attached to them.
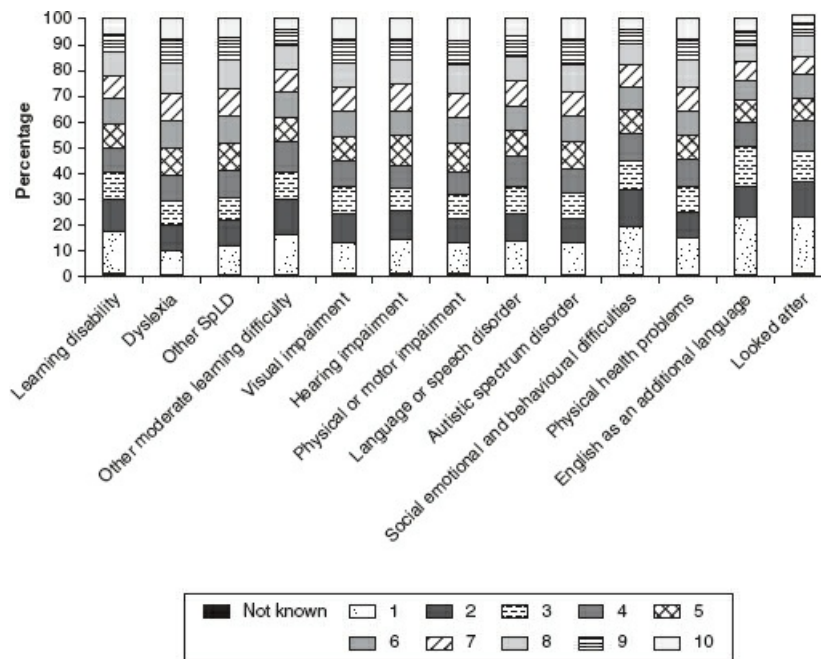
Figure 6.1   Percentage of pupils from publicly funded schools in Scotland with particular types of difficulty by the Scottish Index of Multiple Deprivation decile (2009)

Over recent years, behavioural difficulties have been regarded as classroom management problems and there has been less analysis of competing subcultures and their relationship to the capitalist social relations. This, of course, reflects the fact that government funders of research want to know what behaviour management strategies work in school, and are unsympathetic to the message that behavioural difficulties are an unwelcome by-product of unequal social relations. The implicit social determinism of neo-Marxist accounts is sometimes at variance with attempts by government to achieve social cohesion through inclusive education and employment policies, as outlined in Levitas' (1998) analysis of the social inclusion discourse which characterized many aspects of social policy under the UK Labour administrations of 1997–2010.

A body of literature has applied a materialist analysis to the construction of special education. For example, Tomlinson (1985, 2012) noted that the expansion of the category of SEN in the early 1980s coincided with the collapse of the youth labour market in the late 1970s, with particularly negative consequences for traditionally male areas of employment such as manufacturing. Whereas in the 1940s, only 2% of UK pupils were deemed to require special provision, by the 1980s this had increased to 20%. By labelling young men from socially disadvantaged backgrounds as unemployable, politicians were able to avoid responsibility for managing the demand side of the labour market more effectively. As Armstrong (2003) pointed out, the expansion of special education was accompanied by an increasing tendency to pathologize the behaviour of black pupils. 'Special educational needs', he noted, 'is a convenient tool for legitimising discrimination, racism and the lack of opportunities generally for young people' (Armstrong, 2003, p. 121). The disproportionately high identification of pupils from minority ethnic groups across the developed world is discussed in greater depth by Harry (2007).

The social class differentials in England, noted by Tomlinson, are also evident in Scotland, and are particularly pronounced in relation to certain categories of difficulty. Using the Scottish Index of Multiple Deprivation (SIMD) as a measure of poverty, Figure 6.1 shows the proportion of pupils with particular types

of difficulty by area deprivation decile, with 1 being the most deprived and 10 being the least deprived. There is a very strong association between stigmatized categories such as social, emotional and behavioural difficulties (which is also the largest category), but a weak association between disabilities such as visual impairment, hearing impairment and dyslexia, which are relatively unstigmatized categories (Weedon, Ahlgren, Riddell, & Sugden, 2012).

The importance of intersectional analysis, which explores the inter-connections of a range of social variables, is underlined by Riddell and McCluskey (2012). Boys are much more likely than girls to be identified as having additional support needs, to be excluded from school and to be educated in special settings. In 2011, Scottish Government statistics showed that 70% of pupils with SEN, 67% of pupils attending special schools and 80% of those excluded from schools were male (Riddell & McCluskey, 2012). OECD data (2007) confirm that in all countries boys make up more than 50% of pupils identified as having SEN and receiving additional support (Riddell, 2012).

Social constructionist approaches

Thus far, we have reviewed social accounts of special education which locate difficulties in learning within the individual child, within the management structures of the organization or within wider social structures rooted in economic relations. In this section, we explore the use of interactionist ideas in the sociology of special education. Goffman (1968) challenged the thinking of Durkheim and Parsons by questioning the extent to which behaviour is an expression of a rigid system of defined status and roles. For example, in his work *Asylums* (1968), Goffman examined the 'career' of mental patients and prisoners in their respective closed institutions. His aim was to understand the way in which individuals make sense of the world and negotiate their social identity, often in very difficult circumstances. This may well involve resisting unwelcome labels imposed by others in establishing their own definition of the situation. The familiar criticism of interactionist work is that, in emphasizing the power of individual agency, it may underplay the power of wider social forces, such as those associated with gender or class inequalities. It may also present all perceptions of the world as equally valid, attracting the criticism of naïve relativism. Nonetheless, he argues that this approach may contribute usefully to the study of educational inequality by introducing cultural elements into highly deterministic macro-theories, injecting human agency into theories accounting for social inequality and opening the black box of schooling to examine the reflexive relations between the institutional practices and students' careers.

The socio-cultural approach is particularly evident in a number of recent Swedish studies which seek to understand the reification of labels in the field of special education. For example, Hjörne and Säljö (2004) explore the use of the term ADHD/DAMP in Swedish schools in the context of the politics of representation. They comment:

> ADHD/DAMP as a category, thus, has established itself within schooling, and in this sense is both a social fact and a resource that is actively used for dealing with problems. It has implications for the manner in which teaching is organised and for the use of limited resources. It will also have consequences for the student's educational career, and obviously, a neuropsychiatric diagnosis, indicative of a brain injury, will play a critical role identity formation of young people. (Hjörne & Säljö, 2004, p. 7)

Their analysis of verbal exchanges in pupil–student welfare team meetings illustrates the way in which

professionals focus on evidence which supports the emerging idea that a particular pupil has a specific form of neural deficit, seeking only confirming rather than disconfirming data. In their discussions, practitioners tended to ignore the influence of pedagogy, curriculum and classroom ethos, which might provide alternative explanatory accounts of individual children's failure to learn. Many parents accepted the professionals' diagnosis quiescently, with only one parent challenging the teacher's version of events. Whilst emphasizing the role of everyday interactions in building social reality, Hjörne and Säljö are also aware of the wider social context. They suggest that the use of categories such as ADHD/DAMP reflect changes in public schooling in Sweden, as the increase in free schools threatens to undermine the principle of universal education provided in comprehensive schools. As noted by Lloyd and Norris (1999) and Graham (2010), disputes over the label ADHD have been taking place in many parts of the world.

A further example of the exploration of the establishment and contestation of labels in special education may be found in the Scottish study of dyslexia conducted by Riddell, Duffield and Brown (1994). Drawing on interviews, surveys and observation, the researchers noted the different understandings of dyslexia promoted by different groups. Voluntary organizations and some doctors tended to believe that dyslexia was inherently different from other forms of learning difficulty. They believed that the condition was physiological in origin, favoured forms of psycho-metric assessment designed to identify discrepancies in ability and promoted particular teaching methods which were best delivered by specially trained teachers. Educational psychologists, education officers and teachers, on the other hand, believed that children with specific learning difficulties (their preferred term), did not represent a discrete group but were part of a continuum, with a diverse array of abilities and difficulties attributable to environmental and individual factors operating interactively. According to this perspective, there was no absolute dividing line between children with 'common or garden' learning difficulties and others. The preferred form of assessment was classroom observation of difficulties in order to devise a range of teaching strategies, to be implemented by the class or learning support teacher, without the need for intervention by an educational psychologist. Faced with a refusal to acknowledge dyslexic children as a discrete group with specific problems and teaching needs, parents often became extremely frustrated, and adopted a range of strategies including engaging independent psychologists to conduct assessments and, in England, taking appeals to the Special Educational Needs Tribunal.

To summarize, struggles over the creation and negotiation of categories within the field of special education are still taking place, and social interactionist theories have a great deal to offer in terms of understanding the material consequences which ensue. In the final section, we consider the influence of the sociology of disability, which has had a major impact on thinking about special and inclusive education over the past two decades (see the collection of papers edited by Arnot, 2012, for a review of this work and of the contribution of Professor Len Barton to the field).

Civil rights approaches

According to early social model theorists such as Oliver (1990) and Barnes (1991), disabled people are systematically excluded or marginalized within capitalist societies. Whilst impairments may have real effects, these are not automatically disabling. Rather, disability is always experienced within a specific social context

and it is always political, cultural and economic arrangements, rather than impairments, which exclude. Recently, the sociology of disability has diversified. For example, some of the literature on learning difficulties adopts a strong social constructionist position (Goodley, 2001). Corker and Shakespeare (2002) have emphasized the historical contingency of disability, describing it as a postmodern category because of its mutability. Abberley (1987) drew attention to the fact that many impairments arise as a result of war, disease and global economic oppression.

The social model of disability has had a major impact on everyday thought and action, and has led to significant political progress for disabled people, reflected in anti-discrimination legislation such as the US Americans with Disabilities Act 1990 (as amended in 2008) and the GB Equality Act 2010. Anti-discrimination legislation generally conceptualizes disability as being a characteristic of the individual, but places an onus on public bodies, including schools, to make reasonable accommodations in order to minimize the impact of the disability on a person's social experiences and life chances. Anti-discrimination legislation often dovetails with education legislation to provide legal protection for children and young people with SEN and their parents. However, as illustrated by comparative accounts of the socio-legal aspect of special education (Harris & Riddell, 2011), in most developed countries the balance of power continues to lie with professionals and policy-makers, with parents and children often having little opportunity to realize their rights in practice.

Despite the power of the social model as an analytical tool and a driver of legislative and wider societal change, only a small number of studies have explicitly adopted this approach in research. For example, Riddell, Baron and Wilson's (2001) study of the meaning of the learning society for people with learning difficulties is clearly informed by social model thinking, as is Armstrong's (2003) retrospective study of the experience of special schooling by people with learning difficulties.

CONCLUSION

It is evident that many social theories jostle for position in making sense of the field of special education. This chapter grouped theories into functionalist and critical paradigms. The former are based on the idea that stability and cohesion are natural and desirable social states, whilst the latter see tension and conflict as an inevitable product of capitalist social relations. Functionalist accounts have traditionally reflected the view that the role of special education is to identify those children who should be excluded or marginalized because of the threat which they seemed to pose for the social order. Over recent years, within developed countries, a growing emphasis has been placed on inclusion as a key ingredient in the creation of a modern knowledge economy. However, debates continue with regard to which children should be excluded from the mainstream classroom and what sort of provision should be made for them. These struggles are often over the allocation of scarce educational resources, as government insist that more attention should be placed on recognizing the needs of individual children, whilst targeting resources on improved educational outcomes for higher achieving children.

Whilst functionalist accounts tend to be favoured by parents, practitioners and policy-makers because of their focus on how to improve educational efficiency and effectiveness, critical paradigms provide important insights into the forces of change and challenge without necessarily providing a route map to guide future

developments. Given the array of social forces operating in the field of special education, each perspective contributes distinctive understandings of ways in which the field of special education has developed thus far, and the tensions and challenges which continue to shape its future direction.

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7

Social Justice in Education for Students with Disabilities

David J. Connor

Interest in the application of social justice (SJ) theories to education has grown exponentially in the United States since the mid-1980s, multiplying almost 20-fold (Connor, 2012). The 'currency' of SJ is reflected in edited books (Ayers, Hunt, & Quinn, 1998), professional journals (e.g., *Education, Citizenship, and Social Justice*), conferences (e.g., Conference on Equity and Social Justice, 2012) and mission statements on university webpages (e.g., Brooklyn College). However, the phenomenon of SJ in education gives rise to many questions, including: Where did it originate? How did it grow? What and who does it encompass? And, perhaps most importantly for readers of this book: What does it actually mean for students with disabilities (SWD) and the educators who work with them?

In this chapter, I endeavor to answer these questions by addressing three interconnected areas outlined as follows. First, I link the inception of SJ to contemporary times and related issues in special education as both a field of study and a structural system for SWD. Second, I describe as a matter of SJ, the need for reframing disability *beyond* restrictive notions foundational to the field of special education. Third, I explore examples of proactive pedagogy to educate about disability throughout the curriculum in order to challenge widespread ableist beliefs and practices.

LINKING THE ORIGINS OF SOCIAL JUSTICE TO HUMAN RIGHTS

The term 'social justice' was first used in the mid-19th century by Luigi Taparelli d'Azeglio, a Sicilian priest in response to changes wrought upon society by the industrial revolution, and the Church's position on these changes (Zajda, Majhanovich, & Rust, 2006). In a tumultuous era of unfettered capitalism that gave birth to socialist movements in opposition to dehumanizing conditions, Taparelli denounced the separation of morality from 'positive law', a man-made legal system that bestowed or removed privileges from a particular group of people in society. In contrast, it was generally believed that 'natural law' upheld universal, inherent rights bestowed by nature or God. By viewing society as a multi-leveled system comprised of many sub-societies – and not as a monolithic entity composed of individuals – Taparelli asserted that all people at every layer had rights and responsibilities. Furthermore, he believed that for the benefit of all people, these rights and responsibilities should be respected by everybody. In sum, Taparelli advocated that people from all levels of society should work together toward meeting everyone's needs without resorting to competition, conflict, or violence. From these origins, we can begin to see the premise of SJ as promoting and upholding equality among people – for the greater good of all.

Of course this simple notion – for the greater good of all – often clashes with structures, systems and governmental policies in societies around the world. This chapter is admittedly contextualized within the US

where the traditional dominant ideology is to 'make it on your own', mythologized through tales of rugged individualism and self-sufficiency within a competitive free-market that exists through minimal governmental involvement. However, a byproduct of *lasseiz faire* capitalism has always been massive discrepancies among salaries that results in a sizable portion of the population existing as an underclass with few resources and little economic opportunities (Sleeter, 2007).

In a comment laced with sarcasm, Nieto (2010) states that some people '… liken social justice to socialism and the end of the civilized world as we know it' (p. ix), referring to a curious phenomenon within the US of equating socialism with communism, and the related fear of some people losing their liberties when equality is being advocated for others. Scholars working within SJ recognize that effective fear-mongering results in large groups of people remaining disenfranchised within the systems that constitute our society. Predictably, marginalization is frequently based upon one or more markers of identity such as race, class, gender, immigration status, disability, sexual orientation, and so on. In response, members of these groups and their allies seek to change conditions that disadvantage them in comparison to other citizens, enabling all access to a larger world enjoyed by the majority of people.

Taparelli's original thoughts have stretched throughout a century and a half, taking root across the world, influencing the conceptualization of human rights. Once introduced to the world at large, the discourse of human rights became integrated into existing social movements. For example, African-Americans within the US were keenly aware of how their community sacrificed their own lives to protect the rights of European citizens, while the same rights were denied them on returning home (Wynn, 1993). In sum, the Civil Rights movements of the US, originated by African-Americans, soon grew to include other 'second-class' citizens without recognition from and freedoms within the larger community. These groups included: women (Steinem, 1969); gay, lesbian, bisexual, transgender and queer-identified people (GLBTQ) (Alsenas, 2008); and people with disabilities (Fleisher & Zames, 2001). Through their struggles, all of these groups made progress and gained greater access to all aspects of society, including education within schools and universities.

DEFINING SOCIAL JUSTICE IN EDUCATION

While much as been said and written about the need for, and value of, a SJ perspective in understanding the world, there have also been concerns about who is defining SJ and how. For example, Novak (2000) notes that, 'Whole books and treatises have been written about social justice without ever offering a definition of it. It is allowed to float in the air as if everyone will recognize an instance of it when it appears' (p. 11). Multicultural education scholar Nieto asserts that:

> … a close look at U.S. educational history makes it obvious that few controversies have been unrelated to social justice in education, whether these have focused on segregated schools, bilingual education, education for youngsters with special needs, or gender-fair education, among others. (2010, p. x)

It is clear that the overarching concept of SJ encompassing these and other issues is so broad that it can appear, for some, too widespread and therefore problematic. Chapman and Hobbel express concern that, 'The increased use of the term "social justice" has led to a diffusion of meaning that threatens to make the concept of social justice ineffective and difficult to document through empirical research' (2010, p. 3). This diffusion provokes scholars such as North (2008) to dismiss the concept of SJ as 'education's latest catchphrase',

charging that individuals using the label 'often fail to elaborate the substantive meaning of social justice and the implications of its use' (p. 1182). The seeming paradox of omnipresence without clear definition, and unclear consequences of its use, has thankfully prompted several SJ scholars to articulate what SJ means to them.

For instance, Nieto and Bode (2007) describe SJ education as 'a philosophy, an approach, and actions that embody treating all people with fairness, respect, dignity, and generosity' (cited in Chapman & Hobbel, 2010a, p. 1). The crucial element within their definition is *actions*; actions based upon a philosophy that guides a specific approach to teaching and learning. This expectation of taking action is echoed by other SJ scholars such as Steinberg (2009) who states, '… We – teachers and instructors – are the agent of social and cultural change' (p. xiii). Likewise, Ayres, Quinn, and Stovall (2009b), note that SJ embraces 'three Rs: Relevant, Rigorous, and Revolutionary. We change our lives, we change the world' (p. xiv). At the same time, Ayers et al. acknowledge that SJ in education is still very much a work in progress, and perhaps, by its very nature, may always be this way, stating, '… in this dynamic, forward-charging, imperfect human endeavor, there is always more to know, more to uncover, more to expand and embrace' (2009a, p. 725), conveying its unfinalizability.

SOCIAL JUSTICE AND STUDENTS WITH DISABILITIES

The previous sections serve as a context to the central question of this chapter: What does SJ actually mean for SWD and the educators who work with them? Some readers may argue that the very structure of special education is a form of SJ. After all, since 1975, the passage of major US law PL 94–142 (*The Education of All Handicapped Children Act*) and its subsequent reauthorizations as *Individuals with Disabilities Education Act* (1990, 1997) and *Individuals with Disabilities Improvement Education Act* (2004) guarantee a free and appropriate public education for all SWD. Indeed, there are traditional scholars working within the field of special education who argue that this trajectory does constitute SJ (see, for example, Anastasiou & Kauffman, 2011). However, the same field has also been consistently critiqued *because of* the educational structures that materialized in which to educate students with disabilities (Skrtic, 1991). In brief, despite good intentions embedded within protective law, the experiences of and outcomes for students with disabilities signal a need for change.

For example, in comparison to their non-disabled peers, students in the special education system are likely to have: high drop-out rates (Thurlow, Sinclair, & Johnson, 2002), low graduation rates (Advocates for Children, 2005), a lengthier time completing school (US Department of Education, 2005), less likelihood of entering college and more likelihood of leaving without graduating (Gregg, 2007), unemployment or underemployment (Moxley & Finch, 2003), and higher rates of incarceration (Children's Defense Fund, 2007). Within the special education system, students continue to experience segregation according to disability, with students of color and/or from linguistic minorities still being placed in more restrictive settings (Losen & Orfield, 2002). As has been argued elsewhere (Ferri & Connor, 2005), when it became illegal to separate schools by race, segregation according to disability materialized as a loophole that permitted ongoing racial divisions. Indeed, for many scholars interested in education *and* disability, the very concept of 'special education' is problematic because it signifies a monopoly of thought about these related concepts, and

represents a variety of meanings to different people – from a benevolent, enabling system of protections and services (Kauffman & Hallahan, 1995) to an oppressive, disabling structure, functioning as a precursor to unemployment, low-level jobs, and jail (Karagiannis, 2000; Kim, Losen, & Hewitt, 2010). These troubling outcomes follow the same patterns around the world, as has been seen in recent research from Austria, the UK, Germany, Sweden, South Africa, India, Kenya and Argentina (Artiles, Kozleski, & Waitoller, 2011). Their findings serve to remind us of Slee's (2001) charge for educational research to be more explicit in its connections to SJ.

Although divisions within the field of special education have existed since its inception (see, for example, Danforth, 2009; Dunn, 1968; Wang, Reynolds, & Walberg, 1986), the field has been hostile to critiques, frequently silencing potentially productive discussions, limiting a plurality of perspectives and imposing an ideological 'orthodoxy' (Gallagher, Heshusius, Iano, & Skrtic, 2004). At the turn of the 21st century, a gathering of prominent special education scholars met to debate 'the divide' in special education between subgroups of traditionalists and reconceptualists. These subgroups illustrated the depth of this schism: the former desirous of staying the course, while the latter invoked SJ in their wish to reimagine and redevelop special education along different lines (Andrews et al., 2000).

Around the same time, a core group of critical special educators united in their rejection of self-imposed limitations within the field of special education, motivated by a desire to develop alternative ways of theorizing and researching disability that would, in turn, impact practice and policy. Influenced by the multi-disciplinary field of Disability Studies (DS), these scholars began the sub-discipline of Disability Studies in Education (DSE) (Baglieri, Valle, Connor, & Gallagher, 2011). Initially, in large part, a critique of special education's knowledge base that served as the bedrock undergirding claims and practices (see chapters by Gallagher and Biklen in this volume), DSE has grown to assert its own identity, claiming disability is a form of human diversity, and openly aligning itself with issues of SJ, including inclusive education (Connor, Gabel, Gallagher, & Morton, 2008).

People with disabilities have long critiqued the disposition, conceptualizations, and motivation of disability-focused researchers, calling attention to the minimal impact of their work on the material lives of people with disabilities. Oliver (1996) has characterized most disability-related research as, '… at best irrelevant, and at worst, oppressive' (p. 129). This situation provoked the grass-roots mantra for knowledge claims about disability research, 'Nothing about us without us' (Charlton, 2000, p. 3). Prominent scholars of disability who have disabilities frequently make explicit links to their lives and professions with issues of SJ, activism, access, and inclusion (see, for example: Asch, 2001; Fine & Asch, 2003; Gabel & Peters, 2004; Linton, 2006; Wendell, 2000).

REFRAMING DISABILITY AS HUMAN DIVERSITY: A SOCIAL JUSTICE ISSUE

In general, DS are interested in understanding, differentiating among, and critiquing, all models of disability. The most prevalent models addressed within DS are the medical, social and personal (individualized/hermeneutic) models. Although each will be briefly discussed in this section, each merits more attention than space permits. Other models of disability include lenses constituted by a variety of factors such as economic, religious, cultural, expert, moral, market, spectrum, etc. (see www.disabled-

world.com/definitions/disability-models.php). The three main models – medical, social, personal (and others) – are neither singular nor free-floating, but rather intersectional phenomena that co-exist in time and place. By reframing disability and viewing it through different and/or multiple lenses allows educators, scholars, people deemed disabled and able-bodied, to contemplate disability in more rich and nuanced ways, serving to expand our understanding of bodily differences. The very notion of 'disability' becomes interrogated as a marker of identity that we take for granted, offering us new ways of looking at familiar things.

The medical model

The major critique of special education by DSE scholars has been its dogged adherence to conceptualizations of disability primarily grounded in science, medicine and psychology, all of which frame disability as deficit, disorder, and dysfunction (Dudley-Marling & Gurn, 2011). In brief, special education locates the problem of disability within the individual as an intrinsic state of being, something in need of a cure. The language of special education is rife with medical terminology that subsequently imbues its practices with the authority of pseudo-science. Valle and Connor (2010) describe assessment, eligibility, and special placement procedures delineated under the *Individuals with Disabilities Education Improvement Act:*

> The 'patient' (student) presents with 'symptoms' (educational problems). The 'scientific expert' (school psychologist) performs an 'examination' (psycho-educational assessment) in order to confirm or rule out a 'diagnosis' (disability). Once a 'diagnosis' (disability) is identified, a 'prescription' (Individualized Education Plan, or IEP) is written with recommendations for a 'course of treatment' (special education placement and individual instruction) intended to 'cure' (remediate) the 'patient' (student). A 'follow-up appointment,' (annual IEP review) is scheduled to evaluate the effectiveness of the 'treatment plan' (special education services). (2004, p. 40–41)

In pathologizing human difference as disability, the field of special education (and the foundational knowledge it is built upon) has historically offered a very narrow lens for teachers to view this classification.

The social model

As a field, DS largely self-defines as being undergirded by the social model of disability. That said, in the US and the UK, the grounding of the social model of disability is quite different, prompting some scholars to argue that researchers should clearly identify which definition of the social model is being used and in what ways (Gabel & Peters, 2004). Others have said it is more accurate to describe 'social interpretations' of disability, allowing for greater understanding of theories existing within DS (disability identity, disability discourse, embodiment, etc.) (Gabel, 2005).

Without wishing to oversimplify, the movement in the UK that gave rise to DS in the 1970s was arguably more grass roots than its US counterparts in its vehement rejection of imposed medical authority. Interestingly, the UK movement differentiated between impairment as a bodily function and disability as social oppression promulgated by widespread practices, structural barriers, and bureaucracies that actively disabled its impaired citizens. It urged for greater access to all aspects of society, including jobs, transportation, living conditions and education.

Within the US, in a roughly parallel timeframe, the civil rights movement gave rise to the rights of people with disabilities being conceived as a minority group. In comparison to the UK, the US movement was viewed

as more eclectic in nature, and did not stress impairment vs. disability. According to Gabel, the US 'emphasized the social construction of disability rather than the sociopolitical processes of disablement' (2005, p. 5). Another interesting turn – and major difference – is that DS in the US has been dominated by the humanities (Snyder, Brueggemann, & Garland-Thomson, 2002), whereas within the UK, DS has stayed true to its sociological roots (Barnes, Mercer, & Shakespeare, 1999).

Both versions of the social model have been widely used to promote much-needed changes in policy, especially in the UK (Lang, 2001). However, these models have also been critiqued as somewhat outdated, having served their original purpose of advancing, and complicating disability theory (Gabel & Peters, 2004). For example, once staunch advocates for the social model, Shakespeare and Watson consequently called attention to its limitations, including the need to retain a medical perspective, especially when it comes to disabilities that cause physical and mental pain. They write:

> For us, disability is the quintessential post-modern concept, because it is so complex, so variable, so contingent, so situated. It sits at the intersection of biology and society and of agency and structure. Disability cannot be reduced to a singular identity: it is a multiplicity, a plurality. (2002, p. 18)

In addition, they critique the minority model of disability as presumptuous and limiting, claiming:

> Many disabled people do not want to see themselves as disabled, either in terms of the medical model or the social model. They downplay the significance of their impairments, and seek access to a mainstream identity. They do not have a political identity, because they do not see themselves as part of the disability movement either … What is wrong with seeing yourself as a person with a disability, rather than a disabled person, or even identifying simply as a human being, or as a citizen, rather than as a member of a minority community. After all, identity politics can be a prison, as well as a haven. (Shakespeare & Watson, 2002, p. 19)

The comments of Shakespeare and Watson complicate any simple or universal interpretations of disability through *any* model. At the same time, while they do critique the social models, these frameworks still hold great sway by their primary location of disability within social contexts rather than individuals.

The individual or hermeneutic model

An individual model of disability privileges the lived experience of people with disabilities, upholding a core tenet of DS. Given that the majority of knowledge circulating about disability is generated by deficit-based discourses (science, medicine, psychology, education, etc.), a hermeneutic model provides counter-narratives to master-narratives or dominant scripts of disability. Hermeneutic sources can range from mainstream memoirs (Kleege, 1999; Knipfel, 1999; Mooney, 2008), to poetry (Clare, 1999; Ferris, 2009), to research which foregrounds the voices of individuals with disabilities (Rodis, Garrod, & Boscardin, 2000). It also includes children and youth in special education who offer astute insights into: the nature of disability (Connor, 2008), how our education systems often disadvantage many students with disabilities (Keefe, Moore, & Duff, 2006), and life at the intersections of disability and race (Collins, 2003), class (Harry & Klingner, 2006), gender (Ferri & Connor, 2010) and sexual orientation (McRuer, 2006).

All of these individualized accounts contribute to understanding disability as unique, with knowledge claims not universalized or generalization in the scientific sense, but rather offering a deeper understanding of the contextual and the particular. At the same time as being predominantly anti-essentialist, such accounts do

provide insights into the actual lives of people with disabilities to reveal the tangle of disability discourses that an individual must navigate to make sense of the world in general, and her place within it. In valuing the experiences and perceptions of students and adults with disabilities, educators can come to know the material implications of living with a disability.

THE VALUE OF A PLURALITY OF PERSPECTIVES ON DISABILITY

Because DS (and by extension DSE) is interdisciplinary, and deliberately eclectic, it can appear diffuse – even confusing to some educators. However, it also offers an open-ended view of disability that is a valid alternative to traditional special education discourse. Scholars who have helped to develop the subfield of DSE are motivated by a desire to change society in its broad understandings of disability, including how the institution of special education functions. By providing an alternative framework through which to view disability (instead of relegating anything to do with disability *and* education into the default box of special education), DSE has invoked SJ as a foundational principle. Using a SJ-based DSE lens ultimately opens up increased possibilities in contemplating theory, research, policy, and practice in the education of SWD.

In brief, DSE urges disability to be included in contemporary notions of diversity promulgated within SJ texts (Ayres et al., 2009b; Chapman & Hobbel, 2010a) and multicultural anthologies (Steinberg, 2009). By unpacking what constitutes normalcy (and abnormalcy) in terms of students and research upon them, DSE troubles the fixity of dis/ability categorizations, the legitimacy of traditional research methods and knowledge claims, and surety of existing educational structures and practices. It is worth noting that scholars within the field of special education (and other disciplines) who share a disposition toward SJ issues have made significant contributions. For example, Harry and Klingner (2006) focus on how children of color become overrepresented in special education categories and segregated placements; Hehir (2005) illustrates how ableism works within education; Baker (2002) reveals taken-for-granted disturbing practices within schools that 'hunt' for disability; Varenne and McDermott (1998) portray the varied social contexts in which disability alternately appears and disappears for students; and Blanchett (2006) reveals instances of institutional racism that combine with ableism to contain African-American students. In addition, the work of Artiles, Kozleski, Trent, Osher and Ortiz (2010) calls attention to how research in traditional special education has been extremely narrow, to the point of ignoring many important issues.

It seems that when learning is conceptualized as an individual process, the task of documenting child factors is relatively straightforward; fairly clear answers can be obtained in such studies. However, when issues of context and institutional and interpersonal processes are included in research questions, it is not clear whether researchers used research methods and/or theoretical frameworks that would enable them to capture systematically the link between mind, history, and society.

The lack of cultural competency by many researchers in special education is evident in the inattention paid to issues such as race, class, and culture. As Arzubiaga, Artiles, King, & Harris-Murri (2008) have noted:

> Systematic analysis of empirical studies published over substantial periods of time in peer refereed journals in psychology, special education, and school psychology show that researchers have neglected to ask questions, or to document and/or analyze data that would shed light on the role of culture in human development and provide alternative explanations for student achievement and behavior other than student deficits, which are often assumed with minority group status. (p. 311)

Disability and race are intimately connected throughout US educational history (Connor & Ferri, in press), a nexus that is alive and well as evidenced in the over-representation of students of color in disability categories.

In order to come closer to understanding inequities around race and disability, it is necessary to trouble the limitations of existing educational research in favor of a more diverse, multi-layered approach that incorporates many factors ignored or unaddressed in traditional special education studies. As Artiles (2011) notes:

> The interdisciplinary examination of the racialization of disability promises to transcend substantial limitations of previous equity research in terms of how difference is theorized; the unit of analysis used in this literature; the role of culture, power, and history in institutional practices; the systematic juxtaposition of culture, space, and time … [because such a framework] takes into account the dynamic, culturally situated, and historically produced nature of difference and its consequences. (p. 443)

It is clear then, that special education has neglected a plethora of important SJ-related issues including: disability as a highly contested category; the need to analyze disability in various contexts; schooling practices that actually disable some of the most vulnerable children; the need to use multiple lenses to understand the lived experience of disability in and out of schools; ways in which disability always intersects with a variety of markers of identity; and how disability is inextricably woven with historical understandings of race (Annamma, Connor, & Ferri, 2013; Erevelles, 2006).

In neglecting these 'unpalatable' issues, and uncritically asserting disability as a deficit, special education's clinical disposition has sidestepped SJ issues. However, disability *is* an issue of SJ, prompting us to recognize, and challenge, ongoing beliefs and practices that diminish individuals with disabilities who often evaluate themselves as 'less than' human (Pelkey, 2001). This challenge can be done through theorizing with view to action, developing educational policies that include students with disabilities, researching with students identified as disabled, and personally practicing a pedagogy that challenges the current status quo understanding disability in very limited ways. In the following section, as part of a broad SJ framework, I explore different ways in which educators can use pro-active pedagogy to engage students in issues around disability and diversity.

TEACHING ABOUT DISABILITY: USING PROACTIVE PEDAGOGY

Understanding disability as part of the broad spectrum of SJ issues means that it can be integral to all aspects of teaching. In other words, there lies potential to incorporate disability throughout the entire curriculum. For many disability activists, this is *imperative*, given the need to counter pervasive master narratives of deficit, dysfunction, disorder, tragedy, charity, and so on (Charlton, 2000; Linton, 1998; Shapiro, 1993). By developing a SJ-based proactive pedagogy, educators can use DS to teach against limited and oppressive understandings of disability and toward human diversity, disrupt notions of normalcy, challenge pervasive stereotypes, and provide alternative renderings of dis/ability. Above all, a proactive pedagogy offers ways to confront the many forms of ableism, including manifestations within school practices, structures, and ironically – sometimes within special education itself.

CONFRONTING ABLEISM IN EDUCATION

Originally termed 'handicapism' (Bodgen & Biklen, 1977), the current term *ableism* denotes the different treatment of people with disabilities as inferior to people without disabilities. Akin to racism, sexism, heterosexism, and ageism, ableism signifies the belief that people lacking one or more characteristics do not qualify as fully human. Described by Rauscher and McClintock (1996) as:

> A pervasive system of discrimination and exclusion that oppresses people who have mental, emotional, and physical disabilities … Deeply rooted beliefs about health, productivity, beauty, and the value of human life, perpetuated by the public and private media, combine to create an environment that is often hostile to those whose physical, mental, cognitive, and sensory abilities … fall out of the scope of what is currently defined as socially acceptable. (p. 198)

People with disabilities have long described their status as second-class citizens (Fleischer & Zames, 2001) without this being fully acknowledged by non-disabled people.

By using the voices, experiences, and perspectives of people with disabilities to guide the counter-narrative to the dominant discourse of deficit, educators can begin to re-value rather than devalue the concept of disability. After all, schools are a microcosm of a macro society, simultaneously reflecting and shaping cultural values and norms. Hehir (2005) calls attention to peoples' attitudes, that '… uncritically assert that it is better for a child to walk than roll, speak than sign, read print than read Braille, spell independently than use a spell check, and hangout with nondisabled children rather than with other disabled children' (p. 15). His comments reveal ways in which the microcosm of schooling has traditionally been configured to shape the macrocosm society, and its focus on differentiating between able-bodied and disabled people. The result has been a historically inflexible system, largely intolerant of children who do not – or cannot – 'fit' into school cultures, who then become relegated to specially designated classrooms, schools and institutions.

Given the pervasive nature of ableism, manifest throughout all aspects of society, there are many opportunities for proactive pedagogy. In the following sections, I outline ways in which educators can participate in the 'cultural work' of teaching about disability as human variation. I begin by focusing on college curriculum in general and then teacher education programs specifically, before moving to include several ways in which disability can be incorporated within elementary, junior high, and high schools.

TEACHER EDUCATION PROGRAMS

The place of disability within teacher education programs is constantly subject to the push-and-pull of numerous forces. On one hand, teachers are increasingly required by the educational establishments to: focus on high stakes testing; use a lock step curriculum; adhere to standardizing children (for example into 'performance' categories of 1, 2, 3, 4); push relentlessly toward this uniformity; and be fearful of penalties, punitive measures, and public humiliation via published ratings should their students not sufficiently measure up to standards. On the other hand, teachers are expected to: teach a population composed of children with a diverse range of abilities and disabilities; be cognizant of multiculturalism and student diversity in general, (including gender, social class, race, ethnicity, sexual orientation, and so on); use differentiated instruction in order to meet various needs; and motivate all children to learn. It is safe to say that multiple tensions exist within these expectations that pose what many perceive as conflicting demands (Cochran-Smith & Power, 2010).

Teacher education programs often contribute to this tangle of tensions as they rarely capture the current

'reality' faced by teachers, and even if they do urge teachers to be subversive, the teachers face real risks in maintaining their jobs and securing tenure (Santos, 2010). Governmental policies such as *No Child Left Behind* have created situations in which children identified as disabled are increasingly being held back (Davey, 2005), provided inappropriate alternative assessments (Kotrinsky, 2012, personal communicaton), encouraged to transfer schools (Oyler & Fuentes, 2012), and are not guaranteed admission to charter schools at the same rate as their non-disabled peers (Sweet, 2006). In addition, federal initiatives such as the reduction of racial minority students in special education are inherently flawed as each state is allowed to define its own index that constitutes overrepresentation, with the average state determining 300% – and others up to 500% (Artiles, 2011).

In general, despite movements triggered by IDEIA's push to connect special education teacher education programs to general education, curricula and classrooms are still largely separated within universities (Young, 2008). This continued separation of space, administration, qualifications and orientation to human difference continues to impact the grounding of special and general educators, creating two 'types' of educator, with the special educator likely to operate within a framework deeply rooted in deficit models (Brantlinger, 2006).

As teachers become enculturated within the professional field of education, rather than sidestepping these institutional practices and highly problematic developments, it is incumbent upon educational institutions to take an honest look into what is occurring in contemporary school systems and the classrooms they support. Indeed, as the standards movement now also dominates teacher education programs, it is important for faculty to clarify the difference between technical expectations and the contextual work of culturally competent teachers (Le Roux, 2002). As critical educators attest, sites of dissention are opportunities for productive dialogue (Freire, 1970).

In terms of curriculum, teacher education programs afford many possibilities for undoing the accumulated negativity-without-possibility view that people have learned about disability, and reframe it through multiple lenses. For example, recognizing and challenging forms of ableism can be modeled and discussed as student teachers learn content, strategies and methods that will serve them throughout their careers. These include combating multiple forms of ableism at personal, institutional, and social/cultural levels. First and foremost, due to the pervasive nature of ableism, students enter teacher education programs with limited knowledge and oppressive conceptions of disability (Valle & Connor, 2010). By casting disability primarily within a sociological context, and focusing on how society actively disables people through a multitude of social practices based upon beliefs, attitudes and expectations (Shakespeare, 1994), that in turn, influence all of our actions, students can then 'unlearn' oppressive conceptualizations and come to reframe disability in more socially aware ways. This work is actively linked to undoing longstanding stereotypes (including those, in part, forged through special education) that are limited, inaccurate, damaging, and unhelpful to teachers of SWD.

While space limitations prevent an expansive list of possibilities, I will mention five areas of curriculum that are worth considering and within reach of all teacher education programs:

- **Materials.** All materials should be viewed with a critical eye toward representations of disability. Articles such as *10 Quick Ways to Analyze Children's Books for Ableism* describe how teachers can evaluate texts in a variety of ways including: omitting characters with disabilities (CWD); analyzing images of CWD; reviewing the role(s) of CWD, including victims or heroes; the promotion of ableism as a plot device; negative or positive messages about CWD; the degree of three dimensionality when portraying CWD; and the motivation of the author (Myers & Bersani, 2010). This approach helps teachers to eliminate and/or challenge representations throughout

children's literature.

- **Language.** People with disabilities have found much of the medical-based language typically used within special education (diagnosis, disorder, dysfunction, deficit, disturbed, retarded, comorbidity, symptoms, etc.) to be highly offensive (Mooney, 2008). Alternatives that do not 'reduce' people to a singular, deficit-based label are often preferred, such as 'a student with learning differences'. In addition, an analysis of the English language reveals almost every disability-based phrase to be associated with negativity, including: schitzo, retard, crazy, insane, nuts, '*crippled* economy', '*lame excuse*', 'the *blind* leading the *blind*', 'fallen on *deaf ears*', 'unable to see? (i.e., understand)', 'a *limp* response', '*stand up* for your rights', etc. Educators can call attention to this and teach ways that actively reduce using the language and reframe these connotations.

- **Disability simulations.** Many education programs include disability situations such as being blindfolded, using a wheelchair, writing with a non-dominant hand, or reading a jumbled text. However, Blaser (2003) has pointed out that these are misleading and dangerous. They are misleading because, at best, they only allow a non-disabled person to temporarily pretend they are disabled. They are dangerous, as they can confirm the fear of disability as a loss, rather than differently experienced integration of senses, and delude students into thinking that they actually know what it is like to be disabled. (It is worth bearing in mind how inappropriate this activity would also be if a white person donned blackface, or a male dressed as a female, and claimed this experience as authentic.) Instead of simulations, Blaser suggests more real and far less titillating experiences such as not entering all places that are inaccessible.

- **Crediting experts.** Educators can be proactive in selecting the source of knowledge about disability, making sure that those who have experienced the label are given primary place. Sources in which people with disabilities are recognized as experts allow them to 'talk back' to dominant discourses. Texts can be in the form of autobiographies (Mooney, 2008; Valente, 2011), autobiographical poetry (Clare, 2007; Ferris, 2004), and fictionalized accounts of life experiences (McBryde Johnson, 2006). Rich perspectives can also be found of edited books of autobiographical essays (Keefe et al., 2006; Rodis et al., 2000), and participatory research (Broderick & Ne'eman, 2008; Connor, 2008), as well as documentaries (Habib, 2008; Raymond & Raymond, 2011; Wurtzburg, 2011).

- **Universal design for learning (UDL) and differentiated instruction.** Using the two compatible concepts of universal design for learning and differentiated instruction can be applied to all grade levels and content areas, helping teachers actualize the inclusion of diverse students. As previously described, UDL emphasizes pre-planning with all students in mind (Council for Exceptional Children, 2005). Differentiated instruction respects the notion that students can learn in various ways including the content selected, the process of engagement, and the demonstration of skills and knowledge (Tomlinson, 2001).

CONCLUSION

In DS parlance, 'cripping the curriculum' means problematizing existing curriculum with view to changing it to have a greater presence of accurate information and depictions of disability. Based in a cultural perspective, 'cripping' can best be understood as (1) bringing to bear an analytical lens of disability, largely composed of social models, to (2) deconstruct negative representations and meanings of disability, and (3) create new connections and meanings that claim disability as an integral part of human variation (see, for example, Ware, 2001). In sum, by challenging normalcy through valuing disability, DS creates opportunities for all of us to rethink how we interpret and place meaning on human differences, and the profound implications this has for students.

In revisiting the guiding question of this chapter – What does it (SJ) mean for SWD and the educators who work with them? – it is my hope that suggestions within this chapter may serve as a starting point to contemplate the important issue of how we understand human diversity. A major irony exists for many children in that special education has exacerbated the 'problem', rather than contributing to the solution, of understanding diversity (Keefe, et al., 2006). The work of critical special educators and/or DSE scholars continuously calls attention to how special education is conceptualized, operationalized, and generalized, thereby hindering rather than helping how natural human difference is understood. As Sapon-Shevin (2000) writes, '[e]ducators need to transcend discussions of diversity as a classroom problem and regard it as [a] natural, desirable, and inevitable occurrence that enriches educational experiences for both teachers and students' (p. 34). Until that occurs more frequently, SWD will remain an integral part of the SJ in education

movement.

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The Challenge of Inclusion

8

Disability Rights in Education

Marcia Rioux[1]

Its strong association with abnormality and monstrosity made disability the quintessential marker of hierarchical relations used to rationalize inequality, discrimination, and exclusion. (Reid & Knight, 2006, p. 19)

The best reparation for the suffering of victims and communities – and the highest recognition of their efforts – is the transformation of our society into one that makes a living reality of the human rights for which they struggled. (Mandela, 1999)

A recent development in understanding education is to contextualize it from the perspective of human rights. That is, to put it in the framework of social justice. However, it is by no means certain that the entitlement to education as a human right will be able to defeat the overbearing technology and pedagogical theory that has become the evidence base to judge the capacity of children to learn and the ability of people to participate in our current education systems. Added to this, are the public and governmental attitudes that reflect a hegemonic economic analysis favouring the idea that the economic well-being of nations is dependent on schools training a productive labour force. Growing class, gender and race-based stratification is also drawing recognition and criticism within public education systems worldwide (Brantlinger, 2003). This is furthered by the privatization of schools in many countries. Providing education opportunities based upon flawed notions of meritocracy are powerful inhibitors to the right to education for those who are perceived as 'different'. Difference has been used to marginalize many in the school industry.

Education is influenced by a variety of social, economic and environmental factors, and not just by access to school. Equity in education is a commitment of the public education system to social justice. To implement a rights-based approach to education requires using human rights as a framework for pedagogical theory, for access to places of learning, for testing of capacity and for measuring success. It makes principles of human rights integral to the design, implementation and evaluation of policies and programmes, and it means assessing the human rights implications of education policy, programmes and legislation.

A human rights and social justice approach enacts the use of various categories of rights and recognizes how rights have to be a concern in thinking about approaches to education and social policy that enhance, rather than diminish, the well-being of all people. These include political and civil rights, such as the right to life, freedom of opinion, a fair trial and protection from torture and violence. These are the rights that are the most common concern of nations, particularly in countries of the North and West. The global south introduces a number of other issues (Armstrong, 2003). Human rights also, however, include economic, social and cultural rights such as the right to work, social protection, an adequate standard of living, the highest possible standards of physical and mental health, education, enjoyment of the benefits of cultural freedom and scientific progress. Finally, human rights include the right of nations to development, economic autonomy and security of their citizens. It is increasingly being recognized that the interdependence of these rights is

central to enabling access to education (Alur & Rioux, 2003; United Nations, 2011b).

Education, law and rights are inextricably intertwined. The surprise is how little attention has been paid to putting a human rights lens on education despite the obvious importance of this to ensuring equitable access. As Amartya Sen (2000) has argued, we need radical reform to overcome barriers of social and economic disadvantage. He advocates embracing diversity, equal freedoms and allowing for direct participation in decision-making:

> Since participation requires basic educational skills, denying the opportunity to schooling to any group, for example, female children, is immediately contrary to the basic conditions to participatory freedom. (Sen, 2000, p. 32)

Recognizing that, Sen (2000) maintains that there is a need for social action in removing deprivation, gender inequality, illiteracy and barriers to schooling. He sees communal or social benefits of basic education that are more than simply the gains of the person being educated. He maintains that a general expansion of education and literacy in a region can facilitate social change, including women's control over their own reproduction and mortality as well as helping to enhance economic progress from which everyone benefits. In other words, education is not just about reading and writing, it is about increasing the health and well-being of a population.

There is a growing consensus of disability advocates, experts and researchers recognizing that:

> the most pressing issue faced globally by persons with disabilities is not their specific disability, but rather their lack of equitable access to resources such as education, employment, health care and the social and legal support systems, resulting in persons with disabilities having disproportionately high rates of poverty. (United Nations, 2011a p. vii)

The challenging questions ahead are: What is our commitment to ensuring that all children have access to rights-based education? What is the opposition to the evident benefit that can be claimed by inclusion and the entrenchment of the right to education? What is the international context of this right as a matter of social justice? What have the courts been able to provide? What are the prevailing attitudes towards a right to education and the opposition that blocks its entrenchment?

Despite international recognition of the importance of education as a fundamental right (United Nations, 1989, 2006), it is not uniformly provided in countries around the world. Estimates report that there are 113 million children worldwide with no access to primary education, and 880 million adults remain illiterate (UNESCO & Peppler Barry, 2000). 'Of the 75 million children of primary school age who are out of school, one third are children with disabilities … Over 90 per cent of children with disabilities in developing countries do not attend school' (United Nations, 2011b).

Universal access to education and knowledge is still a distant goal. And universal access to quality inclusive education is an even more remote goal. Girls and children with disabilities continue to be denied schooling as compared to others, regardless of economic class. The recent World Report on Disability reports that:

> children with disabilities are less likely to start school than their peers without disabilities, and have lower rates of staying and being promoted in schools. Education completion gaps are found across all age groups in both low-income and high-income countries, with the pattern more pronounced in poorer countries. (World Health Organisation and World Bank, 2011, p. 11)

The implications of not receiving an education are also significant. 'People who have a low income, are out of

work, or have low educational qualifications are at an increased risk of disability' (World Health Organisation and World Bank, 2011, p. 8).

Empirical evidence from Disability Rights Promotion International field studies monitoring disability rights shows the impact of missing out on going to school for children with disabilities.[2] 'Worldwide a significant gap was found to persist between educational rights on paper and the enjoyment of those rights on the ground' (Rioux & Pinto, 2010, p. 624). While there were stories of people participating and succeeding in regular classrooms in schools, more often, the stories reflected discrimination, exclusion and disrespect that left people with disabilities without an education.

The United Nations High Commission has recognized the importance of universal education, calling on States:

> to give full effect to the right to education and to guarantee that this right is fully recognized and exercised without discrimination … [and] to take all appropriate measures to eliminate obstacles limiting effective access to education, notably by girls … children with disabilities … (United Nations General Assembly, High Commissioner for Human Rights, 2004)

Just as education is an issue of human rights, so too is disability. As a human rights issue, disability is not about the medical condition of people, it is about social justice, about fairness, and about opportunities to participate in everyday life.

It is in fact, increasingly recognized today that:

> education is both a human right in itself and an indispensable means of realizing other human rights. It enables children and young people to develop a sense of their own worth and respect for others. In doing so, it fosters their ability to contribute and participate fully in their communities. (Human Rights Commission [New Zealand], 2009, p. 3)

The exclusion of children with disabilities from school or their discriminatory treatment in the education system is thus recognized to impact their opportunities and available resources throughout the life cycle. Importantly too, exclusionary or disrespectful practices towards children with different levels of abilities in school are viewed as having consequences not just for these students, but for all learners. Deprived from the early experience of respectfully dealing with and accepting disability as part of human diversity, non-disabled children will more likely become adults who will themselves reproduce, instead of combating, prejudicial and discriminatory practices towards persons with disabilities and their place in society.

As Johan Pestalozzi (1746–1827) claimed more than three centuries ago:

> Education is nothing more than the polishing of each single link in the great chain that binds humanity together and gives it unity. The failings of education and human conduct spring as a rule from our disengaging a single link and giving it special treatment as though the strengthened utility of the link came from its being silver-plated, gilded, or even jewelled, rather than from it being joined unweakened to the links next to it, strong and supple enough to share with the daily stresses and strains of the chain.

'To understand disability in a human rights context means to recognize the inequalities that are inherent to our institutional structure' (Wills, 2000). Moreover, 'It is to understand the international community has an obligation to all people, including those with disabilities, to address those conditions that result in social and legal exclusion and maltreatment' (Eigner, 2000, as cited in Wills, 2000). The onus is most often on the individual to fit within the system, not on the system to fit the individual. Professionals retain the power and expertise and though they may be well-intentioned, they are compelled to make decisions about what is in a

person's 'best interests' that may contradict the person's own goals and desires. Interventions based on ideas about disability as an individual pathology, which are intended to be beneficial, can at times compromise an individual's rights and equality (Rioux, 2001, 2003).

The policy of labelling children based on their perceived capacity to learn often results in exclusion from school which is unjust and unjustifiable. Current special education practices are most commonly based on a psycho-medical model (Rioux & Riddell, 2011) of disability where the 'problem' to be ameliorated lies within the child (Mitchell, 2010). Assessment and identification processes often lead to specific interventions including programme accommodations and placement modifications. However, the susceptibility of bias within the process of disability identification has led to a substantial over-representation of historically marginalized students being placed in special education. This is particularly true for poor and racialized students. Once in special education, students face onerous barriers in reaching graduation or any form of post-secondary education (Brown & Parekh, 2010). As opposed to closing the achievement gap through supports and specialized services, special education has become a process through which students are methodically streamed away from valued education opportunities.

The common practices of segregating children leads to the creation of vast numbers of children who are denied ordinary childhood experiences and the potential to live ordinary adult lives (Barnes, Mercer, & Shakespeare, 1999; Barton, 1995; Oliver, 1996). These are the children who are segregated, not just physically, but because a school or a curriculum does not take into account the very diverse and unique learning patterns of every child.

We are then challenged to think about education as inclusive education, not as special education and not as benevolence (as spelled out in United Nations, 2006, Article 24). Within the framework of the disabled persons' movement for human rights, equal opportunity, citizenship and development, the first priority is access to basic essentials including income, housing, public transportation and education. School is a place for children to learn to reach their full potential. Education is arguably '… both an end in itself, that is, a process through which personal development and respect are obtained and a means to an end, that is, integral part of the achievement of social citizenship' (Basser, 2005, p. 534).

The responsibility of the school system is to develop and sustain a place of learning that enables every child to exercise her or his fundamental right to education and learning. It is about the right of children to an equal place in society. And to exercise those other rights that are dependent on that learning: for example, to vote, to work, to participate in activities in the community and society. Taking a social determinants approach to disability means examining the physical and pedagogical accessibility of schools. There is a presumption that public policy and programmes will reflect a social responsibility to reduce civic inequalities and address social and economic disadvantage that results from educational disadvantage. However, recent studies have shown that, even at the school level, public school systems continue to reproduce the social disparity observed in society at large. Socially valued programming is more likely to be offered in areas of affluence leaving children in poorer areas without access to marketable education opportunities (Parekh, Killoran, & Crawford, 2011).

HOW THE LAW DEALS WITH EXCLUSION

Legal cases decided in Canada, and Australia, provide some perspective on how the complicated issues related

to inclusion are framed in law and in policy.

The *Eaton* case from the Canadian Supreme Court (*Eaton v. Brant County Board of Education*, 1997) is a case study of the inherent tensions and contradictions of the arguments about segregating children in education. It raises the fundamental presumptions that are hidden behind arguments for exclusion, exposes charity cloaked as technical expertise, and it unveils how easily fundamental infringements of rights can be explained away as being in the best interests of the student and the school. This is important because the *Eaton* case is often hailed as an important example of entrenching rights, of using technical expertise and pedagogical tools to find ways to give a child the greatest opportunity to learn. As with many rights issues, it is sometimes the subtleties rather than the blatant discrimination that tells the most (Rioux, Basser, & Jones, 2011).

In 1997, the Supreme Court of Canada heard an appeal in the case of Emily Eaton, a 10-year-old with cerebral palsy, living in Ontario (*Eaton v. Brant County Board of Education*, 1995). Her parents claimed an entitlement to being educated in a regular classroom in a regular public school. While Emily started school and went to her local public school for kindergarten and grade 1, the Brant County School Board and the 'Identification, Placement and Review Committee' (IPRC[3]) decided that she should be placed in a congregated special education class for disabled students only, in grade 2.

As with many education systems, the system in Ontario, Canada[4] allows the school board to decide who is an 'exceptional student' – that is, a student whose 'behavioural, communication, intellectual, physical or multiple exceptionalities are such that s/he is considered to need placement in a special education program by a committee established by the board' (Ontario Ministry of Education, 2001, A3). The school remains responsible for the education of the child in providing special education programmes and special education services without cost to the families. Although students are not legally required to either undergo an IPRC review or designated exceptionality to receive services or supports, many school boards continue to assess and label students based on a deficit model. The IPRC process provides the only opportunity for parents to appeal special education decisions.[5] Every board of education in Ontario therefore has to have an IPRC process available for this purpose.

Students, who are identified as exceptional, either because they have disabilities, or because their educational needs are outside the range of what is offered in a regular age-appropriate programme, are provided with either academic supports and/or services appropriate to their needs. Each student is required to have an individual education plan.

At the Special Education Appeal Board the decision was that it was in Emily's best interests, based on expert evidence, to receive her education in a congregated special education class. Emily Eaton's parents appealed the decision to the Courts, believing it was Emily's constitutional right under the equality clause of the Canadian Constitution for Emily to be educated along with her peers (Canadian Charter of Rights and Freedoms, Part I of the Constitution Act, 1982, being schedule B to the Canada Act 1982 (U.K.), 1982).[6] In the ruling from the Ontario Court of Appeal (*Eaton v. Brant County Board of Education*, 1995), the Court found that the Ontario Education Act (1990) and subsequent regulations to the Act were unconstitutional under the equality rights provisions of the *Canadian Charter of Rights and Freedoms*, because they did not provide the equality rights of children with disabilities to be educated with their peers. Justice Arbour (now the United Nations High Commissioner for Human Rights), writing for the Court found that:

Inclusion into the main school population is a benefit to Emily because without it, she would have fewer opportunities to learn how other children work and how they live. And they will not learn that she can live with them and they with her. (*Eaton v. Brant County Board of Education*, 1995)

Arguing as well that pedagogical theories can be inherently exclusionary and on that basis questionable, she found that:

In short, the *Charter* requires that, regardless of its perceived pedagogical merit, a non-consensual exclusionary placement be recognised as discriminatory and not resorted to unless alternatives are proven inadequate. (*Eaton v. Brant County Board of Education*, 1995)

On appeal to the Supreme Court of Canada, however, the decision that was rendered did not enable Emily to go to school with her peers. Despite making clear that inclusion of children in the regular schools should be considered to be the norm, the Court fell back onto the presumptive premises, which suggest that selective, evidence-based exclusion is an appropriate model for organizing learning.

The arguments were relatively straightforward and reinforced the inequity that is masked by expert evidence about discriminatory pedagogical theory. The ruling re-entrenches evidence-based discrimination that perpetuates the notion that children with disabilities fall outside the range of what is offered in a regular age-appropriate programme:

Conflicting opinions from expert witnesses have become a consistent feature of similar court or tribunal hearings in both the United States and Australia. Experts provide evidence according to their own informed educational philosophies about inclusion or in some cases according to their own stereotypical attitudes, values and beliefs. (Keefe-Martin, 2001, p. 31)

The *Purvis v. New South Wales (Department of Education and Training)* (2003) case in Australia also illustrates the underlying contradictions that arise in the decisions by school authorities when they determine that a disabled child cannot be in the regular school system. The case involved a disabled student who was suspended and later expelled from school because of violent and disruptive behaviour. In 1998, Mr. Purvis, the foster father of Daniel Hogan, complained to the Human Rights and Equal Opportunity Commission (HREOC) that the State of New South Wales discriminated against Daniel on the ground of his disability. The Commissioner appointed by HREOC found that the school had treated Mr. Hogan less favourably than it would have treated another student in similar circumstances because it did not adjust the policy to his needs; it did not provide teachers with the skills to deal with his behavioural problems and it did not get expert advice on how to deal with the problems that were manifested. This decision was subsequently overturned in the Federal Court, a decision that was upheld by the High Court. The majority of the Court accepted that less favourable treatment owing to behaviour that is the result of disability could in fact be less favourable treatment because of the disability. However, in considering whether there was a duty to accommodate that would have required the school to make adjustments to ameliorate Daniel's behaviour, the Court found that under the terms of the Act a positive duty of that nature could not be implied. In a dissenting decision by Justices McHugh and Kirby, they argued that the case should have turned on:

… the failure of an educational authority to treat Mr. Hogan equally with other students by taking steps that would have eliminated or substantially reduced his disruptive behaviour and allowed him to enjoy the same quality education as his fellow students enjoyed … To avoid a finding of discrimination against a disabled person, a person may have to take steps that cause expense and inconvenience to that person.

The ruling of the Court suggests that it is not possible to require that the education system provide the accommodations necessary to enable a student to gain equal benefit from a school.

The recognition that a student's behaviour is the result of the complex and unpredictable interaction of the student, the school environment and the pedagogy in the school, is left unexamined in deciding that the school cannot cope with the student and the student cannot cope with school. Far from identifying the student's difference as a means of providing the student with additional support, it identifies the student's behaviour as an individual characteristic that is the cause of his behaviour without any consideration of the part that the school system itself plays in that behaviour. It justifies discrimination without consideration of the environmental factors that may be the source of the behaviour. However, as Freire argued, the solution is not to 'integrate' students into the structure of oppression, but to transform the structure so that they can become 'beings for themselves' (Freire, 2000, p. 74).

The use of these cases is illustrative and is not to suggest that Canada and Australia are somehow in the backwaters of inclusive education. Both countries have, in fact, been reasonably progressive in initiating and furthering inclusive education. Their courts have tried to struggle with equality and rights in the context of education, without being overshadowed and trumped by the notion of the least restrictive alternative. What is clear, however, is that even in jurisdictions where inclusion is held to be as the desired norm, that right is circumscribed by conventional notions of education, of the place of difference within that system, and of the capacity to learn in a conventional manner. International competition for access within the knowledge economy is intensifying and adding pressure to policymakers to promote aptitude over equitable opportunities (Peters, 2001). What the student has a right to is to show that he or she can conform to the pedagogical methods and the policies and procedures of the local school board. The right to equal and non-segregated education would require a significantly different set of standards – where the onus of changing would fall on the school authority rather than on the individual student. However, continued evidence of stratified student achievement and high rates of students with disabilities dropping out of school demonstrates the effect of a rights-based institution adopting pro-market ideologies (Basu, 2005; Smith & Routel, 2010).

MYTHS THAT DENY INCLUSION

Both *Eaton* and *Purvis* are exemplars of the complicated issues raised by inclusive education, and they suggest a number of presumptive and prevalent ideas which underpin the notion that selective exclusion is the best model for organizing learning. These premises have become fundamental to the justification used by courts and policy makers to maintain segregated education for people with disabilities in the face of disability discrimination laws, constitutional equality provisions and disability and education policies that have a contrary intent. The principle of 'separate but equal', the principle that was defeated as the basis for desegregating race-based education in the United States, in *Brown v. Board of Education* (1954)[7] is precisely the principle that is relied upon in many arguments to segregate.[8] It is argued that separate and segregated, is both equal, preferable, and in the best interests of the student who is different (MacMillan & Hendrick, 1993). This assumption is often held as fact and underpins many of the policies and programmes that are in place.

The underlying myths of the arguments for the benefit of separate but equal are found in 21st-century education philosophy and practice. First, most countries stand by the assertion that education is universal and is universally available, independent of personal characteristics. Education has been held as both a right and a necessity within a democratic society. Consequently, in most Northern countries, a certain level of education is compulsory as a way to teach a basic set of social values to all children. Historically, disability has been viewed as a matter of deviance, deficiency or disease – a failure to achieve a standard of normalcy. It is the standard of normalcy that has been the dividing line between those who go to regular schools and those who are not given the choice of attending regular state-funded schools. Schools (or school boards) are generally presumed to have the ability to distinguish those individual students who will be able to benefit from their pedagogical skills and those who will not; those who, in other words, can meet the continually rising standard of normalcy on which they base their teaching methodology. The error underlying this thinking is the inference that disability is a condition inherent to an individual, to a student, rather than the structural conditions and in particular, the pedagogical practices of the school (Underwood, McGhie-Richmond, & Jordan, 2005). The assumption that the academic 'problem' rests within the child negates board responsibility from having to investigate the impact of structural conditions on student learning. The provision of a segregated programme within the school allows for boards and nations to insist that they offer universal education despite a severe disparity in programming.

The second myth is that the education that is available is equitable. It is argued that a supposedly fair spectrum of qualities is targeted in education – that is, that there is a normative student to whom curriculum content and pedagogical methods can be directed (Kauffman, 1999; Sasso, 2001). If this is done well, the argument hypothesizes, then students will rise to the expectations and people who fail are legitimate failures. The structure of the process of targeting, however, makes it difficult to question whether the narrow spectrum of intellectual properties targeted are the entire range of properties on which education ought to focus. Another central part of the educational experience is the way in which students adapt to the learning environment. Even if a student meets the norms expected of the student body, there is no guarantee that he or she will succeed in meeting the standards that are imposed. How well a student does is substantially impacted by the skills of the teacher (Jordan & Stanovich, 2003; Kagan, 1992). The more homogenous the students, and the more the teacher shares similar privilege and culture experiences with the students in their class, the greater the chance the student will achieve high grades. Arguments that rely on the equity of education then provide an easy rationale for excluding students because they cannot make it, a finding that is then proved by the student's lack of success.

The third idea that contributes to the argument that selective exclusion is the best model for organizing learning is the myth of meritocracy. There is a widespread belief in education, in government, and in the public, that the way in which the current education system operates is necessary for the social and economic system to function. The public school system is upheld as an objective, dispassionate, impartial, rational mechanism for ensuring that children learn and for differentiating the abilities of students to determine who will have access to higher levels of education, credentials, and jobs. Arguments in favour of school exit exams, such as in the United States (and other jurisdictions), generally include the case that they allow the state to remain competitive in the market economy (Karumanchery & Portelli, 2005; Vinson, Gibson, & Ross, 2001). The school system then is an important pillar of the meritocracy,[9] which is not only justified but is necessary

for the economic efficiency of any society. A presupposition of inequality is essential to that notion.

When grounded in the notion of meritocracy, equality is based on a narrowly defined and measurable set of abilities that contribute to the social and economic order rather than on human characteristics or attributes. This slips quickly into the argument that the economic and social distributions in society are a reflection of biological capacity. So it is fair that some people have more and some less because it simply reflects their contribution to society. Education is the lynchpin to the argument because it is the school system which is responsible for knowing and judging intellectual ability and thus justifying the social and economic place of individuals. The school system is structured then to act as a sorting mechanism for the long-term social and economic order rather than to equalize opportunities. Those who fail, or are filtered out, are, for the most part, denied the desirable social outcomes and benefits.

The outcome of these ideas and arguments for selective exclusion, far from being benign, fundamentally deny the ability of people who are different, from being able to exercise their right to education. The dilemma of difference[10] is not then about, as it should be, being identified as a way of being privileged for additional attention. It is instead about being identified for justifying disadvantage (Minow, 1985, 1990). It reverts to the argument of separate but equal, a fundamentally flawed principle that was discredited 50 years ago:

> It then occurred to me that the right to be the same … and the right to be different … were not opposed to each other. On the contrary, the right to be the same in terms of fundamental civil, political, legal, economic and social rights provided the foundation for the expression of difference through choice in the sphere of culture, lifestyle and personal priorities. In other words, provided that difference was not used to maintain inequality, subordination, injustice and marginalisation. (Sachs, 1997, p. 15)

INTERNATIONAL RECOGNITION OF DISABILITY RIGHTS IN EDUCATION

It seems clear that the right to education is a universal right. Significantly, international initiatives from the United Nations (UN), UNESCO, the World Bank, and non-governmental organizations jointly contribute to a growing consensus that all children have the right to be educated together, independent of disability or learning difficulty (Quinn, Degener, & Bruce, 2002). Thus, the human right to education is expressed in education systems that are inclusive of all learners.

In the 1982 UN *World Programme of Action Concerning Disabled Persons*, there was a statement of the importance of the preference of inclusive practices in education:

> Member states should adopt policies, which recognize the rights of disabled persons to equal educational opportunities with others. The education of disabled persons should as far as possible take place in the general school system. Responsibility for their education should be placed upon the educational authorities and laws regarding compulsory education should include children with all ranges of disabilities, including the most severely disabled. (United Nations General Assembly, 1982, Resolution 37/52).

In 1993, the UN General Assembly adopted the *Standard Rules on the Equalization of Opportunities for Persons with Disabilities*[11] (United Nations General Assembly & High Commissioner For Human Rights, 1993) which sets an agenda for promoting inclusive and equal education for children with disabilities. The *Rules* specifically mandate inclusive education with attention to disability issues forming an integral part of national educational planning, curriculum development and school organization. Supports and services needed to ensure accessibility of mainstream education are also addressed. Specific attention is paid to structural or systemic strategies, widely-communicated policy, flexible curriculum, differentiated instruction, and the

provision of quality materials, ongoing teacher training and support for teachers. Special education is considered only in those cases where the mainstream school system does not yet adequately address the needs of students with disabilities, and the *Rules* specify that it should be aimed at preparing students for full inclusion.

The *Convention on the Rights of the Child* (United Nations General Assembly, 1989), an authoritative international standard, sets a framework for education for all, which has been taken up internationally as a goal in policy and practice. How far the Convention includes children with disabilities when it is interpreted is unclear. In addition, a number of important international conferences have also addressed standards that ought to guide national priorities in issues of the education of children with disabilities. This includes the World Conference on Education for All in Jomtien, Thailand, in 1990 (United Nations Development Programme, UNESCO, UNICEF, & World Bank, 1990). *The World Declaration on Education for All* (WDEA), adopted at that meeting, reaffirms the principle of integrated education for all children with learning or educational needs (UNESCO, 1990). The *Salamanca Statement and Framework for Action* (UNESCO & Ministry of Education and Science Spain, 1994) has the clearest support to date recognizing inclusive education. Nearly 125 countries have signed this declaration which proclaims that every child is unique and has a fundamental right to education. The conference participants agreed to a Framework of Action that stipulated the inclusion of all children with disabilities in regular schools, under the rubric of Education for All. Article 2 pointed to inclusion as a model of best practice:

> [R]egular schools with inclusive orientation are the most effective means of combating discriminatory attitudes, creating welcoming communities, building inclusive society and achieving education for all. (UNESCO, 2005, p. 13)

Inclusion and participation are framed as 'essential to human dignity and to the enjoyment and exercise of human rights' (UNESCO & Ministry of Education and Science Spain, 1994, section 1, para. 6, p. 11). Its guiding principle is that ordinary schools should accommodate all children, regardless of their physical, intellectual, emotional, social, linguistic and other differences. The Framework directs that all educational policies should stipulate that disabled children attend whatever school they would have attended if they did not have a disability. Governments are called upon to make improving education a priority and to adopt the principle of inclusive education as a matter of law and policy. This was followed in April 2000 with the *World Education Forum* in Dakar, Senegal, sponsored by UNESCO (see UNESCO & Peppler Barry, 2000).[12] In response to the concern that education for all applied to children with disabilities created some difficulties, the frameworks for action adopted at these conferences laid out plans of action to work towards full inclusion.

In 2006, the *Convention on the Rights of Persons with Disabilities* (CRPD) was adopted by the UN and came into force on 10 May 2008 (United Nations, 2006; United Nations Enable, current website). It makes very specific recommendations on education from its preamble in which there is recognition of the need for accessible education through to a number of articles that recognize education in various contexts. For example, Article 8 mandates the education system at all levels to foster, 'an attitude of respect for the rights of persons to disabilities' and Article 24 recognizes a general right to education for all persons with disabilities. The CRPD states that all education systems should be inclusive at all levels regardless of the student's severity of disability, making it unambiguous that education is a right for persons with disabilities. Other articles in the CRPD relevant to education include Article 3 (General principles); Article 5 (Equality and non-

discrimination); Article 6 (Women with disabilities); Article 7 (Children with disabilities); Article 8 (Awareness-raising); Article 9 (Accessibility) and articles that affect access to education, such as right to health, right to work, etc.

Discussion around the Millennium Development Goals (MDGs) have also recently introduced disability as a cross-cutting issue in the agenda.[13] Goal two is to 'achieve universal primary education' and in 2010 for the first time, disability was included in the progress report as well as in the outcome document of the high–level summit of the MDGs. A recent report on the MDGs and disability emphasized the important of including disability in all the goals including education and provided direction for recognizing the importance of addressing disability. '… [s]tigma and prejudice leads to social marginalization and lack of equal access to education, employment and social support mechanisms that result in profound poverty for millions of persons with disabilities' (United Nations, 2011a, p. 48).

National and bilateral aid agencies, UNESCO, UNICEF, and non-governmental organizations such as Save the Children Fund, have all had demonstration programmes of inclusive education in developing economies. While these have been inconsistent in terms of their commitments to full inclusion, they have established that it is a goal towards which education has to work.

UNIVERSAL EDUCATION

Education for all is not education for some children some of the time. There is no evidence-base that shows who deserves to enter school. The labelling of children as less able to learn or as not needing an education is evidence about pedagogy and about teaching capacity not about children's capacity to learn. It is about inflexible conceptions of achievement that undermine effective learning and it is about disrespect for the child who is different – because of race, poverty, disability or some other characteristic. Within an institution structured on normative conception of success, it is the student difference that is marked making specialized education seem natural for lower performing students (Reid & Knight, 2006). Children are a heterogeneous group making teaching each child in the unique manner that their individual strengths and weaknesses demand an essential underlying premise of universal education (Rioux & Pinto, 2010). The barriers that exist for learning come from many sources including curricula, laws, segregating policies, technical jargon, specialist expertise, infused market ideology within social institutions, and foreign aid that builds segregated schools in some countries. They are also found in the redefinition of education as primarily an economic activity and in the development of schools for particular elite groups. The goal has to be universal education.

The negative attitudes and the lack of knowledge and understanding of difference and diversity are not solved by dividing and excluding. The challenges that children present because of their differences should not provide an excuse for inaction and exclusion. The key to building a more cohesive society is to educate and empower children through learning and development.

NOTES

1   I want to acknowledge the contribution of Gillian Parekh, a doctoral candidate in the Critical Disability Studies programme at York University, to this chapter.

2   The legislative process for special education is based on an identification process that relies on an assessment by a doctor or a psychologist.

After the student is assessed, their name is put forward for identification to the IPRC. These meetings are held on an annual basis for each exceptional student. If a parent does not agree with the decision of the IPRC they can appeal through a Special Educational Tribunal, which reviews decisions.

3 Launched in 2002, DRPI. is a collaborative project monitoring disability discrimination globally. The project has been piloted in a number of countries of the North and South encompassing two broad areas of rights monitoring – 'systems' monitoring involving the collection and analyses of domestic law and public policy with impact on the lives of people with disabilities, and 'individual' monitoring through face-to-face in-depth interviews with persons of adult age with various kinds of disabilities. To read more about this project and access country reports, visit: http://drpi.research.yorku.ca

4 There are differences in the way that the Ministries of Education function among the Canadian provinces. As education is a provincial jurisdiction, the practices may vary.

5 Although administrators withhold the right to place students on individualized programmes and into specialized programmes, parents have the right to challenge the exceptionality decided upon at the IPRC.

6 See also Rioux & Frazee (1999).

7 'In the field of public education, the doctrine of "separate but equal" has no place. Separate educations facilities are inherently unequal' (*Brown v. Board of Education*, 1954).

8 That children with disability will face the same type of stigma from segregated educational settings was recognized by the US Court in *Mills v. Board of Education of the District of Columbia* (1972) which quoted *Brown v. Board of Education* (1954) extensively.

9 The meritocracy has been justified because it has been presumed that social and economic efficiency and progress are necessary. These are dependent on identifying and rewarding people whose natural capacity sustains the social well-being, the culture and the progress of society.

0 Martha Minow refers to the following question as the difference: 'when does treating people differently emphasize their difference and stigmatize or hinder them on that basis? And when does treating people the same become insensitive to their difference and likely to stigmatize or hinder them on that basis?' (Minow, 1990, p. 20).

1 Rule 6 of the *Standard Rules* states: 'States should recognize the principle of equal primary, secondary and tertiary educational opportunities for children, youth and adults with disabilities, in integrated settings. They should ensure that education of persons with disabilities is an integral part of the educational system' (United Nations General Assembly & High Commissioner For Human Rights, 1993, Standard Rules on the Equalization of Opportunities for Persons with Disabilities, 48th Session, 85th Mtg., Resolution 48/96).

2 This Forum, sponsored by UNESCO, was a follow-up of the World Declaration on Education for All in Jomtien, Thailand, in 1990.

3 See http://www.un.org/disabilities/default.asp?id=1470

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9

Inclusive Education: From Targeting Groups and Schools to Achieving Quality Education as the Core of EFA

Renato Opertti, Zachary Walker and Yi Zhang

INTRODUCTION

Building an inclusive society, in which all people can participate effectively and learn together, entails a broadened understanding, conceptualization, and development of inclusive education as a key overall principle to attain and sustain quality education for all (UNESCO, 2009). The potential for inclusion to educate all learners is promising because it allows for reflection upon the current educational systems and for revolutionizing education at large. However, the debate about the terminology, definitions, and implications of inclusive education is often contested, confusing, and sometimes stagnant (Ainscow, Dyson & Weiner, 2012). This creates a mindset barrier for stakeholders as well as the general public to understanding inclusion's basic premise – that all children have the right to an inclusive learning environment where educational leaders and teachers are convinced of and actively promote inclusive practices in the school. Inclusive education does not only entail advocating for its development and/or allocating more resources to invest in basic infrastructure and equipment. Nor is it simply adjusting the curriculum repeatedly to narrow down inputs for 'learning', or introducing changes in teacher education, or supporting in-service training. Instead, inclusive education entails the openness, willingness and competencies to understand, embrace, and support the diversity of learners' profiles, circumstances, needs, styles, and expectations as a powerful source for democratizing and enhancing learning opportunities, processes, and outcomes.

The concept of inclusion has significantly evolved throughout the past 60–70 years. Reviewing its development from an international comparative perspective, there are four core ideas discussed and developed at the national and international levels regarding how inclusive education policies and practices are understood and implemented under different circumstances. While the term inclusion became more popular near the end of the 20th century, we posit that it began as a foundation for the rights-based approach of educational practice (core idea 1) as indicated in the United Nations Declaration of Human Rights in 1948. Initially, inclusive practitioners focused on improving the learning conditions of specific learners, mostly children categorized with special needs (core idea 2), which was largely influenced by the 1994 Salamanca Statement and Framework for Action on Special Needs Education. Gradually, they expanded their focus to all marginalized children (core idea 3) as declared in the World Education Forum in Dakar, 2000. Today, inclusive education is increasingly driven towards bolstering the capabilities of the education system, across all its levels, provisions, and settings, to deliver on the promise of a quality education for all (core idea 4).

The foundations, rationale, content, and implications of these four core ideas have informed and largely shaped the current educational policies and practices on inclusion, although not necessarily under robust,

coherent, and comprehensive frameworks. Sometimes they complement each other in building strong, inclusive education systems, such as in the case of Finland (Halinen & Järvinen, 2008; Savolainen, 2009; Thuneberg et al., 2012). Other times, they run into contradiction, resulting in piece-meal approaches or evidence gaps between and within the policy, programmatic, and practice levels.

For example, principally in the past decade, there have been significant normative and programmatic advances in Latin America to strengthen education as a human right and a public social good, as well as to promote the role of government and prioritize policies for traditionally excluded groups such as the indigenous and Afro-origin populations. Nonetheless, inclusive approaches and practices are predominantly embedded in divisions/departments of special education, and are strongly focused on mainstreaming students with disabilities in regular schools (Amadio, 2009; Amadio & Opertti, 2011; Cedillo, Fletcher, & Contreras, 2009; Garcia-Huidobro & Corvalán, 2009). Likewise, in Eastern and South-eastern Europe, as well as in the Commonwealth of Independent States (CIS) and most parts of Asia, the concept and practice of inclusive education have been limited mainly to students identified as having special needs, generally referring to those with physical and/or mental disabilities, as well as refugees (UNESCO-IBE, 2008b; Zagoumennov, 2011).

In light of the evolution of the concept and practices of inclusion, the education system should facilitate and ensure lifelong learning opportunities of all learners from childhood to adult education within a holistic vision of EFA (Opertti, Brady & Duncombe, 2009). Countries of different regions are facing a vast array of challenges cross-cutting to the educational system and broadly referring to social inclusion policy initiatives and developments. Even bearing in mind the vast regional differences and disparities regarding inclusive education policies and practices (Opertti & Belalcázar, 2008; UNESCO-IBE, 2011), countries at large are becoming increasingly aware of the need to revamp the educational system as they attempt to make inclusion truly effective. By positioning inclusive education at the core of transforming educational systems, it highlights the question of how it can be seen as a powerful way to contribute to attaining, developing and sustaining more inclusive societies and advancing progressive educational agendas (Acedo, Ferrer & Pàmies, 2009; Amstrong, Armstrong, & Spandagou, 2010).
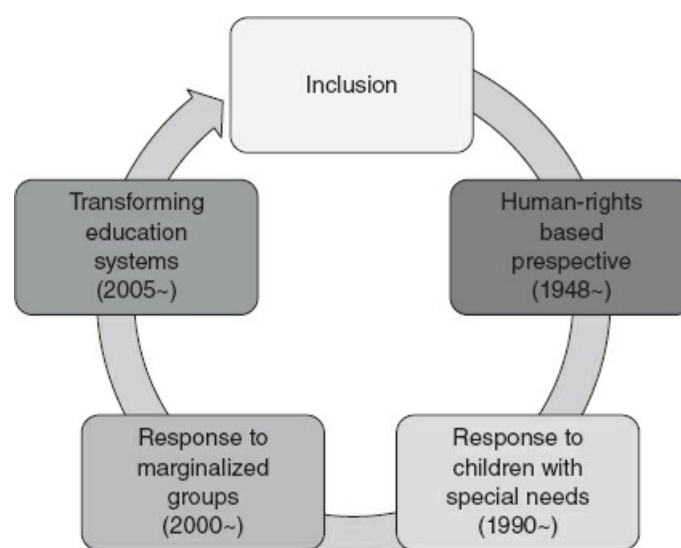

Figure 9.1   The continually-evolving journey to inclusion: Four core ideas in the international arena

The 1948 Universal Declaration of Human Rights is the foundation for educating all learners and speaks directly to the issue of social justice (Rioux, 2007). Article 26 of the Declaration is the first international recognition that all human beings have a right to education (United Nations, 1948) and that education is imperative for the full development of individual potential.

The 1989 Convention on the Rights of the Child more concretely states the right for inclusion of all learners by proclaiming that all children have the right to receive an education that does not discriminate on the basis of disability, ethnicity, religion, language, gender, capabilities, or any other reason (UNICEF, 2011). The Convention produced the first legally-binding international instrument to incorporate the full range of human rights in terms of civil, cultural, economic, political, and social rights. People under 18 years old needed a special convention as they often require specific care and protection that adults do not. In addition, the Convention also sets out a clear recognition that children have human rights as well as adults (UNICEF, 2011).

> **Key events and documents:**
>
> - 1948 Universal Declaration of Human Rights (Article 26)
> - 1989 Convention on the Rights of the Child

Figure 9.1(a)   Inclusion within a human rights-based perspective

In light of these historic normative developments and of strengthening the role of inclusive education as an economic, social, and cultural policy, the current discussion is increasingly framed within a rights-based perspective (Tomasevski, 2003; Florian, 2008; UNESCO-IBE, 2009, 2011). Inclusion as a guiding principle ensures that the goals and practices of education systems meet the expectations and needs of all learners. The rights-based perspective overcomes a categorical approach towards inclusion, as the right of each learner to access, profit from and enjoy a relevant education is explicit and visible, compared to being encapsulated within the needs of diverse categories and/or groups. Framing inclusion as the right of individual learners contributes to understanding and appreciating the uniqueness of each learner and thus highlights the need to personalize education in order to be attentive to the diversity of learning contexts, circumstances, and profiles.

In 1990, delegates from 155 countries, as well as representatives from some 150 governmental and non-governmental organizations, agreed at the World Conference on Education for All in Jomtien, Thailand (5–9 March 1990), to make primary education accessible to all children. The delegates adopted a World Declaration on Education for All, which sets out an overall vision of universal access to education for all children, youth, and adults as well as equity among all. Additionally, the conference explicitly stated that both women and people with disabilities were excluded from education worldwide and outcomes for these groups needed to be improved (UNESCO, 1990).

The Jomtien meeting paved the way for acknowledgement of the exclusion of large numbers of vulnerable and marginalized learners from education systems worldwide. It also presented a vision of education as a much broader concept than schooling, by beginning with early childhood, emphasizing women's literacy, and recognizing the importance of basic literacy skills as part of lifelong learning. This was a landmark conference in the understanding of inclusive education, even though this concept was not widely adopted at that time

(Ainscow & Miles, 2008). Likewise, the 1993 Standard Rules for Equalization focused specifically on ensuring that people with disabilities had the same rights as others in society (United Nations, 1993).

The 1994 Salamanca Statement and Framework for Action on Special Needs Education (UNESCO, 1994) has also been pivotal to the inclusion movement because of the focus it brought to mainstreaming students with special needs into regular schools, along with the prioritization of targeted excluded groups linked to ethnic, gender, cultural, socio-economic, and migrant factors.

Key events and documents:

- 1990 World Conference on Education for All
- 1993 Standard Rules for Equalization
- 1994 Salamanca Statement and Framework for Action on Special Needs Education
- 2006 United Nations Convention on the Rights of Persons with Disabilities (mainly Article 24)
- 2009 Follow-up conference of the Salamanca Statement

Figure 9.1(b)   Inclusion as a response to students with special needs

Two main ideas framed the understanding of inclusive education: (i) regular schools must have an inclusive orientation, which constituted significant progress in recognizing that all schools should be inclusive, and no differentiation should be made among them regarding their scope of inclusiveness; and (ii) regular schools with an inclusive orientation are 'the most effective means of combating discriminatory attitudes, building an inclusive society and achieving education for all' (Ainscow & Miles, 2008).

The Salamanca Statement placed educational reform within a broader social agenda that included health, social welfare and vocational training and employment. It emphasized that planning, monitoring and evaluating provisions for inclusive education should be 'decentralized and participatory' and should encourage the 'participation of parents, communities and organizations of people with disabilities in the planning and decision making' (UNESCO, 1994, p.ix). The Statement acknowledged that in many countries there were 'well established systems of special schools for those with specific impairments' (UNESCO, 1994). These systems could 'represent a valuable resource for the development of inclusive schools' (UNESCO, 1994, p.12). However, it urged countries without such a system to 'concentrate their efforts on the development of inclusive schools' alongside specialist support services to enable them to reach the majority of children and young people (UNESCO, 1994, p.13). All policies, both local and national, should ensure that children with disabilities attend their neighborhood schools (UNESCO, 1994, p.17). Finally, the Salamanca Framework specifically states: 'A change in social perspective is imperative. For far too long, the problems of people with disabilities have been compounded by a disabling society that has focused upon their impairments rather than their potential' (UNESCO, 1994, p.7).

In overall terms, the Salamanca Framework was a strong call to understand inclusion as an effective way to include special needs groups within the framework of EFA. This entails, among other key elements, strengthening the inclusive response of regular schools, rethinking the role of special schools as resource centers, facilitating and promoting the participation of disabled people and their families in developing policies, and linking inclusive education to social inclusion.

Following the 1994 Salamanca Statement, the United Nations Convention on the Rights of Persons with Disabilities (United Nations, 2006), specifically Article 24, refers to an inclusive education system that ensures the right to education of persons with disabilities at all levels and within a lifelong learning perspective. It specifically tailors the general human rights to education to the particular context of disability, with reference to inclusive education. It aims especially to dismantle the barriers that exclude or otherwise marginalize learners with disabilities.

Article 24 is predicated on an assumption that each learner has unique needs – something that is particularly pronounced in the context of disability but equally applicable to all learners. The simple integration of children and other learners with disabilities into the general educational system is not the objective of the Convention. Instead, its aim is to provide the necessary obligations to support truly inclusive education systems and change existing practices to remove barriers to inclusion. As the most recent enunciation of the general human right to education in the specific context of disability, Article 24 is now the central point of departure in international law in the field (Opertti, Brady, & Quinn, 2010).

Article 24 effectively codifies a core set of obligations which signatory States must follow to develop an inclusive education system that focuses on children with disabilities: ensuring access to free, compulsory, inclusive, and quality primary and secondary education; accommodating reasonably to individual requirements; and providing individualized support. Inclusion in this sense entails the full incorporation of students with disabilities into the regular educational system, but the article does not go beyond this idea. It views inclusion mainly from the perspective of learners' problems and impairments, which in fact could only be addressed by adjusting the educational system as a whole.

The follow-up conference of the Salamanca Statement reaffirmed the commitment to develop an inclusive education system by highlighting Article 24 as a vehicle to achieve the goal of inclusion for all. The main challenge in developing inclusive systems lies in reforming the mainstream school system and the early years' settings by emphasizing the need to overcome barriers in environment, communication, curriculum, teaching, socialization, and assessment at all levels. The reference document of the post-Salamanca meeting (Inclusion International, 2009b) points out that Article 24 indicates a delicate consensus among international disability organizations reflecting the right to inclusive education as well as the right of blind, deaf and deaf-blind students to be educated in groups (Inclusion International, 2009a). The Convention on the Rights of Persons with Disabilities constructs the framework and outlines the obligations as a roadmap to advance the Salamanca agenda. It entails building consensus and adopting a series of performance benchmarks and success indicators to assess the implementation of inclusive education across different policy domains and actions.

> **Key events and documents:**
> - 1990 World Conference on Education For All
> - 2000 Dakar Framework for Action
> - 2010 UNESCO EFA Monitoring Report

Figure 9.1(c) Inclusion as a response to marginalized groups

Within this framework, the agenda of inclusion has been intensively promoted in the past 15 years or so,

mainly by civil society organizations related to people with disabilities, and in a lesser way by governments. Despite the reference to EFA or to the needs of all learners, inclusive education is strongly related to the refinement of mainstreaming with a holistic and systemic perspective on how to accommodate the needs of learners categorized as having difficulties and impairments. Inclusion might not be the response or solution in all cases, and it seems not to be a principle applied to all learners, but mainly for those who are defined as in need to be included and specifically related to the framework of special needs education (Booth, 2011).

While the purpose of the World Education Forum (2000, Dakar, Senegal) was referred to by some critics as 'essentially updating or reorienting the plans of Jomtien, and giving them an extra 15 years' (Torres, 2001), the Dakar Framework for Action re-affirmed the commitment to achieving EFA by 2015 (UNESCO, 2000) and, in fact, placed a more specific emphasis on expanding the notion of inclusive education. This was mainly done in two ways: (i) by increasing the scope of groups considered as marginalized learners; and (ii) by asserting that the issues of quality are central to the attainment of a truly inclusive education system.

While tackling marginalization, the Dakar Framework called upon nations to address groups that had not previously been a primary focus of international frameworks, such as the poor and most disadvantaged, including working children, remote rural dwellers and nomads, ethnic and linguistic minorities, children, young people and adults affected by conflict, HIV/AIDS, hunger and poor health, and those with special learning needs (UNESCO, 2000). This targeted group approach widened the scope and content of the concept of inclusive education, recognizing that inclusive education also raises issues of cultural and social exclusion. In response to these concerns, governments usually give priority to certain excluded groups in policy planning and the allocation of resources. The discussion has revolved significantly around whether these policy initiatives are developed in a more universally-oriented or focalized public policy framework, having a compensatory perspective on inequities (essentially separated interventions and provisions) or one more related to forging sustainable opportunities for social and individual development under a holistic vision of education (Opertti et al., 2009).

The debate about inclusion responding to the needs of marginalized groups implies a discussion about restructuring the welfare state and, more specifically, how targeted policies and programs are embedded in universal public policy frameworks. Focalizing policies within weak universal references may lead to second-class education perceptions and realities, assuming that learning expectations and proposals ought to be narrowed to the constraints of diverse learners' profiles, contexts and circumstances (Opertti, 2011).

The Dakar Framework for Action introduced the idea of a quality education for all linked to the achievement of learning outcomes, especially in literacy, numeracy, and essential life skills (UNESCO, 2001a). It was reaffirmed and further developed afterwards, that equity and quality go hand in hand, and that inclusion may be seen as an evolving process as well as a complex and delicate synthesis of these two concepts. Within this perspective, inclusive policies must widen their scope, as exclusion is related not solely to access to education but to lack of equity in learning processes and outcomes. Exclusion was visualized as coming from the 'black box' of the educational system (Rambla, Ferrer, Tarabini & Verger, 2008) and not purely as the result of socio-economic factors. The Dakar conference constituted a step forward in visualizing equity and quality as complementary foundations of inclusive approaches targeted at marginalized learners. It was able to 'turn on many spotlights', revealing groups that had been left behind. Although more groups received schooling, many of the settings where they received schooling lacked equity and quality.

The scope of equity was widened to encompass access, processes and outcomes while quality was mainly referred to as achieving effective learning outcomes. The discussion remains quite open, as the understanding of quality is seen as the key to developing sustainable long-term policies (Opertti, 2011; Roegiers, 2010). Some tend to see quality more as the aggregation of improved learning inputs and conditions, while others view it more as diversity of learning processes within a comprehensive vision of the curriculum (considering the prescribed, the implemented, the attained, the experienced, the hidden, and the forgotten curriculum) and leading the way towards relevant learning outcomes. It appears that after Dakar, inclusion has moved strongly along the line of enlarging the scope of equity while the quality discussion has been stuck in an input-oriented perspective (for example, the curricula and textbooks visualized as inputs) disregarding the vast array of learning processes and their complex links to outcomes. Likewise in the last decade or so, quality education has been increasingly narrowed to the conceptualization and measurement of learning outcomes mainly related to 'cognitive knowledge and skills in language, mathematics, and, to a lesser extent, science' (Benavot, 2012).

Ten years after Dakar, the UNESCO EFA Monitoring Report (UNESCO, 2010) emphasized the important role of inclusive education as a condition for the development of more inclusive societies. It also highlighted the consequence of failing to place inclusive education at the center of the EFA agenda as hindering progress towards the goals adopted at Dakar. Without defining inclusive education, this report identifies three broad sets of policies in an Inclusive-Education Triangle – accessibility and affordability, learning environment, and entitlements and opportunities – which could be seen as a way of integrating equity and quality policies (UNESCO, 2010).

Key events and documents:
• 2005 UNESCO Guidelines for Inclusion
• 2008 48th session of the International Conference on Education
• 2009 UNESCO Policy Guidelines on Inclusion

Figure 9.1(d)   Inclusion as transforming the education system at large

Within this conceptualization, inclusive education is mainly the result of a series of concrete policies and interventions that have proved to be feasible in different contexts. One core question is how these initiatives are integrated and synergized within diverse educational systems, which are more like the sum of parts and components rather than facilitators of learning opportunities. Policies have great potential to transform reality yet effective development can be severely hampered by piece-meal approaches which seek to implement a series of measures that are not necessarily interconnected and devoid of a global vision of education and learning as well as a holistic perspective of the educational system.

In 2005, UNESCO released guidelines for inclusion with the view to systematize planning for excluded children in the educational process (UNESCO, 2005). The guidelines explained what inclusion entails, that inclusive practice must include all learners, and the need for a holistic view of education as a system comprised of both the public and private sectors. UNESCO understands inclusion as 'a dynamic approach of responding positively to pupil diversity and of seeing individual differences not as problems, but as opportunities for

enriching learning' (UNESCO, 2005, p.12). Inclusion becomes more of a continually-evolving process (a journey) to respect, understand, address and respond to learners' diversities, entailing changes in the educational system at large (i.e., regarding content, approaches, structures, and strategies) and strengthening the need to personalize education. Along with visualizing diversity as an entrance point to value all children equally (Booth, 2011) and the core of the attainment of inclusion, UNESCO (2005, p.16) also highlighted the need to prioritize 'those groups of learners who may be at risk of marginalization, exclusion or underachievement' indicating moral responsibility.

Building upon this vision of inclusion, and taking stock of diverse policy developments and agreements at the inter-regional and regional levels (UNESCO-IBE, 2008b), the 48th session of the International Conference on Education (ICE) (held in 2008) placed inclusive education at the core of the transformation and development of the educational system at large. Endorsed by 153 countries, including over 100 Ministers of Education, inclusive education was understood 'as a general guiding principle to strengthen education for sustainable development, lifelong learning for all and equal access of all levels of society to learning opportunities' (UNESCO-IBE, 2008a).

The 2008 ICE was followed by policy dialogue meetings and capacity-development workshops held at inter-regional, regional, and national levels, partnered among UNESCO, UN-sister organizations and other international organizations, Ministries of Education, universities, and civil society institutions (UNESCO-IBE, 2012). Conceptual and policy discussions focused strongly on the need to rethink the visions, cultures, policies, and practices of the educational systems while understanding inclusion as a key to democratizing education and society, and as a 'model of the kind of democracy one would like to see throughout society' (Thomazet, 2009).

This transformational line around inclusion has brought in a series of challenges and issues that contribute to progressively moving the inclusive education agenda from diverse and often contradictory visions, approaches and practices structured around categories and groups, to a more holistic perspective based on the idea that understanding, respecting, and responding to expectations and needs of all learners within their contexts and circumstances is the pathway to truly attain inclusion.

Some of these issues include:

- Visualizing inclusive education as a transversal approach to all dimensions and levels of the educational system within a lifelong learning perspective encompassing formal, non-formal, and informal settings and provisions;
- Understanding, addressing and responding to the diversity of expectations and needs of all learners through personalizing education within the common aims and objectives pursued by the educational system at large;
- Understanding, identifying, and removing institutional, curricular, pedagogical and teachers' barriers that hamper the democratization of educational opportunities (the domains of culture, policy, curriculum, and practice);
- Aiming at presence (access and attendance), participation (quality learning and processes) and achievement (quality outcomes) through the synergies between social and educational inclusion policies and programs;
- Using the triad inclusive curriculum – school – teachers as a comprehensive and integrated policy framework to facilitate and ensure the engagement and the welfare (academic, social, and emotional) of all learners;
- Promoting school cultures and environments that are child-friendly, conducive to effective learning, inclusive of all children, healthy and protective, gender-responsive, and encourage the active role and the participation of learners, their families and their communities; and
- Training teachers by equipping them with the appropriate competencies to teach diverse student populations and to support the development and strengths of the individual learner within the community of the classroom (Florian & Black-Hawkins, 2010).

Based on these recent developments, UNESCO followed up the 2008 ICE by releasing its 2009 Policy Guidelines on Inclusion. The objective is to assist countries in strengthening their focus on inclusion through their strategies and plans for education, to introduce the broadened concept of inclusive education, and to highlight the areas that need particular attention to promote inclusive education and strengthen policy development (UNESCO, 2009). The guidelines are comprehensive in nature and highlight the definition, rationales, practical concerns, and suggested solutions to diverse policy concerns and domains regarding inclusive education. It is understood as a process that allows all learners access to a quality education grounded in personalized learning.

Overall, the conceptual discussions, policy developments and capacity-development training activities lead by UNESCO-IBE and taking place in different regions since the 2008 ICE, indicate renewed commitments, foundations, criteria, and tools to advance the inclusive education agenda. It entails, among other aspects, an increasing focus on revisiting the policy frameworks within a socially-inclusive perspective; overcoming narrow conceptualizations of inclusive education as mainly category/group-oriented and differentiated by ability levels; fostering/strengthening partnerships to engage diverse stakeholders in understanding, being convinced of and backing up inclusive policy initiatives; facilitating curriculum development processes at the school and classroom levels, targeting all learners in heterogeneous learning environments; and strengthening inclusive education as a guiding principle and cross-cutting dimension to teachers' education and professional development (Ainscow et al., 2012; Opertti & Brady, 2011; Opertti et al., 2009; UNESCO-IBE 2012). The discourse and practice are moving from the emphasis on the necessity, advocacy and investment for inclusive schools, to the recognition, acceptance and promotion that all schools should be inclusive regardless of their contexts and students' profiles.

REGIONAL COMMONALITIES AND DIFFERENCES AROUND INCLUSIVE EDUCATION

The following section identifies some major issues and challenges informing the inclusive education agendas and practices in six regions: Africa, the Arab States, Asia-Pacific, the CIS, Europe, and Latin America (see Table 9.1).

Despite the wide-scope development of regional policies and practices, many countries are struggling to address the deeply rooted barriers towards a more inclusive society, both within and outside the education system, and increasingly framed in a rights-based perspective (core idea 1 referred to in Section I). Some countries still refer to a narrow understanding of inclusive education that focuses mainly on children with special needs (core idea 2) and to a lesser extent on marginalized learners (core idea 3), while others continue to face challenges of bridging the gaps between policy rhetoric and practices. In general, regions are still far from effectively implementing the concept of inclusive education as transforming the education system at large (core idea 4). In addition, the scarcity of financial and human resources as well as the lack of inclusive curricula and teaching also represent common obstacles for designing and implementing inclusive education policies. Based on the commonality of the issues and challenges presented in Table 9.1, we herein identify five policy priorities for all regions regarding the development of truly inclusive education systems.

a) Creating a common societal understanding of inclusive education

Policy-makers and education officials in many countries have accepted the broadened conceptualization of inclusive education since the 2008 ICE. However, it is still understood primarily as a process of integrating children with special needs or disabilities into mainstream schools by larger society, especially in the Africa, Arab States, and Asia-Pacific regions. Moving inclusion beyond the cultural, institutional and educational boundaries of special needs implies a worldwide challenge of promoting changes across the education system, most significantly within schools, and involving communities at large. Teachers' efforts to attain inclusion are often hampered by constraints within the education system (Florian & Black-Hawkins, 2010). As long as the concept of inclusion remains narrow, the discussion will continually focus on accommodating specific groups of learners within existing frameworks, structures, settings and provisions, instead of reflecting upon the educational system as a whole to ensure inclusion. Building on consensus around a common societal and cultural understanding of inclusive education is crucial to democratizing education and to the attainment of just, peaceful, inclusive, and cohesive societies.

b) Promoting fundamental mindset changes

Mindset transformations are at the core of open, plural, and constructive dialogue around inclusion. The most troublesome barriers to inclusion come from entrenched values, attitudes, and behaviors that disdain and/or disregard the idea of a just society; that do not recognize or accept diversity as key foundation of a more inclusive and cohesive society, and that do not consider the scope and implications of glaring social and educational gaps as a priority issue. The broadened conceptualization of inclusive education entails a completely different perspective of the current issues, which suggests that the fundamental problems reside in the mindsets of the education system itself, rather than in children who do not fit into the system. This perspective is derived from the belief that all learners have a right to quality education and the diverse needs of all learners should be addressed by the education system on an equal foot. It also implies a fundamental paradigm shift of inclusive education from a traditional 'Charity/Social welfare approach' to a 'Rights-based approach' (Gaad, 2010), which makes it possible to overcome a categorical approach towards inclusion. Placing inclusion as the right of individual learners contributes to understanding and appreciating the uniqueness and specificity of each learner and highlights the need to personalize education while taking into account the diversity of contexts and circumstances.

Table 9.1   Inclusive education from a regional perspective

	Africa (Ji & Bégin-Caouette, 2011)	Arab States (Brady, Harb & Bubshait, 2011)	Asia–Pacific Region (Shaeffer & Lindeberg, 2011)	CIS (Zagoumennov, 2011)	Europe (Donnelly, Meijer, & Watkins, 2011)	Latin America (Amadio & Opertti, 2011)
Conventional perception	In Africa, inclusive education refers to a process of integrating children with special needs (mainly disabilities) into mainstream schools	In the Arab states, inclusive education has been traditionally associated with efforts targeted at supporting learners with special educational needs, focusing on their rights and their inclusion in society	In many Asian countries the term inclusive education does not exist or is not recognized by all; otherwise it refers to education for children with disabilities	In CIS countries, inclusive education is still considered as education for students with physical and/or mental disabilities, guaranteeing access to quality education for children with special needs	In European countries, the most common understanding of inclusive education is an approach for meeting special education needs (SEN) within mainstream settings; usually seen as a component of social inclusion	Countries in Latin America interpret inclusive education in terms of equal educational opportunity, provision and access of quality education for all. However, the term still strongly relates to special education of children with disabilities into mainstream schools
Broadened conceptualization as point of comparison	A general guiding principle to strengthen education for sustainable development, lifelong learning for all and equal access of all levels of society to learning opportunities (UNESCO, 2008)					
Some regional issues and challenges	a) Poverty alleviation b) HIV/AIDS education c) Early childhood care and education (ECCE) d) Mother tongue instruction e) Life skills and competency-based approach	a) Lack of societal understanding about inclusion and its implications for society and local values b) Exclusion of parents and other stakeholders from decision-making processes c) Gaps between policy design and implementation d) Lack of inclusive curricula and inclusive teachers e) Lack of data on education systems f) Situations of emergency in post- and/or current conflict areas	a) Early childhood care and education (ECCE) b) Exclusion in Primary and Secondary Education (especially for children with disabilities, children affected and/or infected with HIV/AIDS, children from ethno-linguistic minority groups, children of illegal migrant workers, refugee children, girls) c) Non-formal education d) Fragmentation and low quality of teacher training	a) Lack of awareness about the value and broadened conceptualization of inclusive education b) Lack of policy and legislative framework for inclusive education c) The need to diversify education to address multi-ethnic, multi-lingual and migration changes in the population d) Tracking system which streams and segregates students based on their differences e) Financial restriction f) Lacking commitment from other public sectors involved in social policies	a) Differences in concepts and terminology b) Merging and reshaping of systems c) Collection of qualitative and quantitative information d) Eastern and South Eastern Europe: overcrowded classrooms, inappropriate infrastructure in schools, lack of a qualitative inclusive curriculum, uninformed and untrained teachers, lack of resource teachers and resource rooms in schools, and lack of appropriate knowledge about school legislation and inclusive education	a) Envisage a holistic vision of educational change b) Viewing the diverse student profile as a valuable resource instead of attempting to homogenize learners c) Initiate intersectoral programs for successful education d) Rethink citizenship education to reinforce democracy and improve the governance of education systems e) Address the most vulnerable groups to reduce their disadvantage and foster equity in primary and secondary education f) Promote competency-based approaches

	Africa (Ji & Bégin-Caouette, 2011)	Arab States (Brady, Harb & Bubshait, 2011)	Asia–Pacific Region (Shaeffer & Lindeberg, 2011)	CIS (Zagoumennov, 2011)	Europe (Donnelly, Meijer, & Watkins, 2011)	Latin America (Amadio & Opertti, 2011)
Some regional policy priorities	a) Ensure equity in education b) Promote early childhood care and education (ECCE) c) Extension of basic education d) Improve community involvement e) Provide mother tongue instruction f) Adopt competency-based approaches g) Develop inclusive curriculum h) Improve inclusive teacher training and education	a) Promote social awareness regarding the broadened concept of inclusive education b) Encourage participatory policy-making and enact legislation for all categories of students c) Provide access to ICT and facilitate its incorporation into curricula e) Build partnerships among diverse stakeholders f) Develop inclusive curriculum g) Diversification of assessment criteria and methods h) Inclusive teacher training and professional development i) Engagement of parents, students and communities at school level	a) Raise awareness around the broadened concepts and practices of inclusive education b) Design coherent and sustainable policies to address the issues of social exclusion and anti-discrimination laws c) Adopt inclusive teaching and learning practices into the regular pre-service teacher training programs d) Initiate early intervention programs e) Create a database of children to monitor the progress of inclusion f) Pay special attention to children affected by war, civil strife and natural disaster g) Provide health services for children in a child-friendly way and offer voluntary testing, counselling and treatment for HIV and related illnesses	a) Promote the improvement of national legislation and its closer adherence to inclusive education international norms b) Promote public awareness and acceptance of inclusive education goals and objectives c) Shift from the educational paradigm focused on students' 'defects' to the paradigm focused on support to each child development d) Diversify school-curriculum learning framework e) Support to educational initiatives aimed at promoting culture of tolerance in schools and society f) Adopt ICT and distance education to broaden access to high quality education for all children g) Develop a system of comprehensive monitoring of all students' development and social inclusion h) Improve teacher training to increase their capacity to work in inclusive educational settings	a) Strengthen the social dimension of education b) Enhance social inclusion to promote equal opportunities in education c) Improve pre-primary education for children with SEN d) Build support systems for mainstream schools e) Personalize learning to meet diverse needs in mainstream classrooms f) Coordinate support services and inter-disciplinary teamwork g) Provide learners with SEN the access to post-compulsory education h) Raise achievements of all pupils in inclusive settings	a) Develop rights-focused, long-term educational policies supported by broad social participation b) Extend early childhood care and education (ECCE) programs, especially for most disadvantaged and vulnerable social groups c) Reduce inequalities in learning achievements and knowledge distribution in primary and secondary education d) Address cultural diversity by developing inclusive curriculum, and diversifying teaching strategies and assessment systems e) Invest more in teachers and other educational staff, develop comprehensive and inter-sectoral policies to maximize their abilities and motivations, and improve their working conditions

	Africa (Ji & Bégin-Caouette, 2011)	Arab States (Brady, Harb & Bubshait, 2011)	Asia–Pacific Region (Shaeffer & Lindeberg, 2011)	CIS (Zagoumennov, 2011)	Europe (Donnelly, Meijer, & Watkins, 2011)	Latin America (Amadio & Opertti, 2011)
Some regional initiatives and practices	UNESCO-backed Basic Education in Africa Program (BEAP) a) Extend and democratize basic education towards a minimum of 9–10 years, including 1 or 2 years of early childhood education b) Set up a 'Knowledge Hub' of early childhood care and education (ECCE) in Mauritius d) Support the revision of basic education curriculum frameworks (i.e., Gambia) e) Initiate a postgraduate Diploma in Curriculum Design and Development for African countries (hosted by the Republic of Tanzania and co-sponsored by UNESCO)	a) Adapt school curricula and support to accommodate students' needs (Oman, Qatar and United Arab Emirates) b) Initiate programs of early intervention and preparation, and preferential practices for the disabled (i.e., Kuwait) c) Adapt teaching methods and strategies to meet all students' needs, peer instruction, teacher and educational staff incentives and training (i.e., Kingdom of Bahrain, Kuwait, Oman and Saudi Arabia) d) Promote awareness and positive attitudes (i.e., Kuwait, Qatar and Yemen)	a) Develop inclusive education policy in countries (i.e., Laos PDR, Timor-Leste and Pakistan) b) Establish pilot inclusive schools (i.e., Afghanistan, Indonesia and Pakistan) c) Improving inclusive teacher training (i.e., Brunei Darussalam) d) Promoting awareness and positive attitudes towards inclusion (i.e., Indonesia and Mongolia)	a) View linguistic and cultural diversity in the classroom as a valuable resource and promote the use of the mother tongue in the early years of instruction (i.e., Armenia and Kazakhstan) b) Working closely with a number of key actors, including other government agencies, civil society and the private sector as well as parents and community (i.e., Armenia and The Russian Federation) c) Strengthen the use of Information and Communication Technologies (ICTs) to ensure greater access to learning opportunities, in particular in rural, remote and disadvantaged areas (i.e., Ukraine)	a) SNE data collection program (a biennial exercise with data provided by the Ministerial Representatives of the European Agency for Development in Special Needs Education) b) Establish inclusive educational institutions and adopt individual teaching plans c) Comprehensive schools' model (i.e., Finland)	a) Successful policies to advance universal access to primary and secondary education b) Intercultural and bilingual education programs valuing students' learning in their mother tongue (i.e., Chile, Ecuador, Guatemala and Peru) as well as intercultural initiatives c) Inter-sectoral policies to support inclusive education d) Some initiatives to mainstream students with special needs into regular schools are currently taking place and specific teacher training programs, supporting mechanisms and materials have also been developed for special needs students f) Decentralization and participative design of the curricula

c) Restructuring schools to provide comprehensive support to all learners

Inclusive education reforms are calling for radical changes to the traditional onesize-fits-all approach, encouraging and supporting the personalization of education. The comprehensive support approach tends to accommodate the diverse needs of all learners and support learners from at least the following dimensions:

- **Pupils' welfare**: Schools provide comprehensive services to ensure the physical, psychological, and social well-being of all students.
- **School infrastructure**: School infrastructures are adjusted for children with special needs. Adequate facilities to accommodate children with disabilities are provided to allow barriers-free access on campus. Parents and students are informed by the facilities available.
- **Early support**: Schools provide support to students and families as soon as the needs are identified.
- **Financial support and scholarships**: Financial supports are provided to students in need.
- **Mother tongue instruction**: Teaching approaches, curricula and textbooks are adapted to the lingual needs of minority students.
- **Specialist provision**: Special education teachers and resource centers/rooms are provided for students with special needs. Existing special schools can be transformed into inclusive education resource centers to serve the mainstream schools in the neighborhood.

d) Addressing expectations and needs of all learners through an inclusive curriculum

An inclusive educational system entails a broader understanding of the curriculum as a tool to understand, respect, and address the expectations and needs of all learners by personalizing the learning processes and looking for multiple ways to develop each individual's potential. It implies an inclusive pedagogy that creates options for students to choose 'how, where, and with whom they learn' (Florian & Black-Hawkins, 2010) and respectfully accommodates to their expectations and needs. An inclusive curriculum is not about adjusting mainstream provisions and settings to consider special needs learners, but it is about developing shared goals, frameworks, strategies and practices as key dimensions to respond to the uniqueness of each learner within the classroom community. Holding high expectations for all learners supports the development of an inclusive curriculum. The system should provide support when needed and make curricula solid, open, and flexible, allowing for different learning styles and content which are relevant to learners and society.

e) Empowering inclusive teachers to address diversity of learners

Teachers are key policy-makers in class as their decisions determine what the class experiences once the classroom door is closed (Fulcher, 1999). However, teachers could not serve as agents to 'deliver' a new paradigm of inclusion without being informed about and convinced of the rationale, aim, strategies, and contents of inclusive education. Empowering teachers to be truly inclusive of all learners entails that teacher education curricula enhance their competences and support customized learning for each individual within diverse contexts (European Agency for Development in Special Needs Education, 2011; Florian, 2011; Forlin, 2010; Rouse, 2010). After all, 'effective teaching is effective teaching for all students' (Ainscow et al., 2012).

We should consider at least two elements regarding the development of an inclusive pedagogy in teacher education institutes: (i) responding to teacher needs and strengthening their self-esteem regarding their work in multicultural contexts that are becoming increasingly diverse; and (ii) promoting that teacher students come from different ethnic, social, and cultural backgrounds and identities (Forlin, 2010).

RETHINKING INCLUSION ENTAILS RETHINKING THE EDUCATIONAL SYSTEM

In order to move forward with relevant and effective policies and implementation strategies to achieve quality education as the core of EFA, it is highly relevant for policy-makers and educators to understand the complexity of the four evolving and intertwining core ideas of inclusive education, the common elements of regional and inter-regional challenges and issues, as well as their implications in different social, political and educational contexts.

As indicated in the first section of this chapter, through the shared collaboration and leadership from various international agencies and conferences, inclusive education has evolved towards a process that strengthens educational systems, across all levels, provisions, and settings to provide education for all learners. Despite the progress that has been made, inclusive education remains strongly embedded in discussions about groups of learners within the paradigm of special needs education, and not so clearly about the culture, political, social and educational reforms required to sustain inclusion.

The increasing emphasis on inclusive education as a 'principled approach to the development of education and society' (Booth, 2011) challenges practitioners to reconsider their own thinking and practice (Ainscow, 2008). The new understanding of inclusion requires realizing that decisions about how to improve schools always involve moral and political reasoning, as well as technical considerations (Ainscow, 2008). Educators cannot pretend that inclusive education can be pursued without tackling institutional reconstruction and economic redistribution in highly stratified societies (Slee, 2008). The costs of exclusion are high in terms of lost productivity, lost human potential, and lost health and well-being (Peters, 2007). Inclusion entails addressing the politics of exclusion and representation (Slee, 2008). In-depth educational reforms related to curriculum change and development are visualized as social actions to remove deprivation, gender inequality, illiteracy, and barriers to schooling (Rioux, 2007).

While progress is being made, there is not necessarily deep conviction around and strong acceptance of the inclusive philosophy (Brantlinger, 1997; Fuchs & Fuchs, 1994; Sebba & Sachdev, 1997). Many educationalists resist the idea, and some disability-focused organizations argue for separate and specialist services (Ainscow, 2008; Booth, 2011). However, attempts are being made throughout the world to provide more effective educational responses for all children, whatever their characteristics. The overall trend is to respond within the context of general educational provisions (Ainscow, 2008). Inclusion is increasingly seen more broadly as a reform that supports and welcomes diversity among all learners (UNESCO, 2001b), and that entails a paradigm change, from recognizing classroom diversity to a positive management of the singularities (Jollien, 1999). This perspective presumes that the aim of inclusive education is to eliminate social exclusion resulting from attitudes and responses to diversity in race, social class, ethnicity, religion, gender and ability (Vitello & Mithaug, 1998).

As long as the policy debates and developments about inclusive education are strongly focused on the co-location of special schools within mainstream schools (Ainscow et al., 2012), the inclusive perspective is not contributing to leading the transformation of the educational system and to effectively conceiving and developing schools for all. Within a narrow and piece-meal conceptualization of inclusive education, EFA goals will not be achieved, and remain primarily related to issues of access and input/outcome-oriented perspectives/approaches on quality education, disregarding learning processes and the role played by the curriculum as a tool to sustain educational policies.

Regarding key policy dilemmas revolving around inclusive education, we could either stand on different

combinations of the paradigms of special needs education (core idea 2) and marginalized learners (core idea 3), or recognize and build on the positive initiatives and achievements of these two traditions, moving towards inclusion as a guiding principle and dimension to change the mindsets and the practices of the educational system (core idea 4) within a rights-based perspective (core idea 1). The first option does not stop, or even exacerbate, the vicious cycle of segregation, marginalization, and exclusion from inside and outside the educational system; whereas the second option seeks to address the multiple binding causes and consequences of social and educational exclusion. The double-face question is about which type of society we envisage and strive for as the foundation of inclusive education, and how inclusive education effectively supports the development and attainment of more just, inclusive, tolerant, cohesive, and developed societies by providing an effective learning opportunity to every single learner.

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10

From Special Education to Effective Schools for All: Widening the Agenda

Mel Ainscow

Since the late 1980s, a growing number of international scholars have provided a critical commentary on the field of special education. In so doing, they have argued that progress towards more inclusive education systems requires a shift away from practices based on the traditional perspectives of special education, towards approaches that focus on the development of mainstream schools that are able to respond to learner diversity.

This shift in thinking has been characterized as an 'organisational paradigm' (Dyson & Millward, 2000). It involves moving away from explanations of educational failure that concentrate on the characteristics of individual children and their families, towards an analysis of the barriers to participation and learning experienced by students within school systems (Ainscow, 1999; Booth & Ainscow, 2011). In this way, those students who do not respond to existing arrangements come to be regarded as 'hidden voices' who, under certain conditions, can encourage the improvement of schools.

Just over 20 years ago I edited a book entitled *Effective Schools for All* that included contributions from scholars such as Tom Skrtic, Roger Slee and Margaret Wang, who were at that time arguing for a change of perspective (Ainscow, 1991). In that book I concluded that this new thinking had had limited impact upon policy and practice in the field. I went on to suggest that progress would depend upon a new culture in schools that encourages teacher reflection and collaborative problem-solving. I also argued that this required 'those of us who have made our careers in special education to reconsider our perspectives once more and act accordingly' (p. 227).

Later, in the first education of this Handbook, I reflected on developments since the early 1990s in a way that was intended to challenge readers to think critically about their own thinking and practice (Ainscow, 2007). In particular, I reviewed research carried out within an organizational frame of reference in order to map progress and point to areas that warrant further attention. The chapter went on to focus attention on possible 'levers' that can help to move education systems in a more inclusive direction.

In this updated version of the chapter I extend this analysis, using the findings of more recent research I have carried out with my colleagues. This leads me to argue that the way we think about the task of developing inclusive schools has to extend beyond what happens within individual schools. This has significant implications for school organization and leadership.

THINKING ABOUT INCLUSIVE EDUCATION

The field that has been known as special education or, more recently, special needs education, has been involved in over a decade of uncertainty. This context of uncertainty provides the special education field with new opportunities for continuing its historical purpose of addressing the needs of those learners who become

marginalized within existing educational arrangements. But professional action aimed at redressing marginalization requires a greater clarity about what becoming more inclusive involves. For us, it is a 'principled approach to education' (Ainscow, Booth, & Dyson, 2006), which involves:

- The process of increasing the participation of students in, and reducing their exclusion from, the curricula, cultures and communities of local schools;
- Restructuring the cultures, policies and practices in schools so that they respond to the diversity of students in their locality;
- The presence, participation and achievement of all students vulnerable to exclusionary pressures, not only those with impairments or those who are categorized as 'having special educational needs'.

Certain features of this way of conceptualizing inclusive education are of particular importance: inclusion is concerned with all children and young people in schools; it is focused on presence, participation and achievement; inclusion and exclusion are linked together, such that inclusion involves the active combating of exclusion; and inclusion is seen as a never-ending process. Thus, an inclusive school is one that is on the move, rather than one that has reached a perfect state.

As we have worked with schools over many years I have become aware of the complexities this approach involves (Ainscow, 2005). Recently we have proposed that the extent to which students are included is not dependent only on the educational practices of their teachers, or even their schools (Ainscow, Dyson, Goldrick, & West, 2012). Instead, it depends on a whole range of interacting processes, some of which reach into the school from outside. These include the demographics of the areas served by schools, the histories and cultures of the populations who send (or fail to send) their children to the school, and the economic realities faced by those populations. Beyond this, they involve the underlying socio-economic processes that make some areas poor and others affluent, and that draw migrant groups into some places rather than others. They are also influenced by the wider politics of the teaching profession, of decision-making at the district level, and of national policy-making and the impacts of schools on one another over issues such as exclusion and parental choice.

Looked at in this way, it is clear that there is much that individual schools can do to tackle factors that lead to marginalization within their organizations, and that such actions are likely to have a profound impact on student experiences. However, it is equally clear that these strategies do not lead to schools tackling external factors that may be acting as barriers to participation and learning.

Bearing these arguments in mind, in what follows I explore possibilities for linking developments within schools to developments in the wider context in order to develop more inclusive education systems.

Developing inclusive practices

In the United Kingdom, two recent studies have looked closely at how practices that respond effectively to learner diversity develop. Significantly, both projects involved researchers working collaboratively with practitioners.

The first study, 'Learning without Limits', examined ways of teaching that are free from pre-determined assumptions about the abilities of students within a class (Hart, 2003; Hart, Dixon, Drummond & McIntyre, 2004). The researchers worked closely with a group of teachers who had rejected ideas of fixed ability, in order to study their practice. They started from the belief that constraints are placed on children's learning by

ability-focused practices that lead young children to define themselves in comparison to their peers.

The researchers argue that the notion of ability as inborn intelligence has come to be seen as 'a natural way of talking about children' that summarizes their perceived differences. They go on to suggest that, in England, national policies reflect this assumption, making it essential for teachers to compare, categorize and group their students by ability in order to provide appropriate and challenging teaching for all. So, for example, school inspectors are expected to check that teaching is differentiated for 'more able', 'average' and 'less able' students. In this context, what is meant by ability is not made explicit, leaving scope for teachers to interpret what is being recommended in ways that suit their own beliefs and views. However, it is noted that the policy emphasis on target setting and value-added measures of progress leave little scope for teachers who reject the fixed view of measurable ability to hold on to their principles.

Through examining closely the practices and thinking of their teacher partners, the researchers set themselves the task of identifying 'more just and empowering' ways of making sense of learner diversity. In summary, this would, they argue, involve teachers treating patterns of achievement and response in a 'spirit of transformability', seeking to discover what is possible to enhance the capacity of each child in their class to learn and to create the conditions in which their learning can more fully and effectively flourish.

The researchers explain that the teachers in their study based their practices on a strong conviction that things can change and be changed for the better, recognizing that whatever a child's present attainments and characteristics, given the right conditions, everybody's capacity for learning can be enhanced. Approaching their work with this mind-set, the teachers involved in the study were seen to analyse gaps between their aspirations for children and what was actually happening.

The second study, 'Understanding and Developing Inclusive Practices in Schools', also pointed to the importance of inquiry as a stimulus for changing practices. It involved 25 schools in exploring ways of developing inclusion in their own contexts, in collaboration with university researchers (Ainscow, Booth & Dyson, 2004; Ainscow, Howes, Farrell & Frankham, 2003; Ainscow, Booth & Dyson, 2006). Significantly, this process took place in the context of the UK government's extensive efforts to improve standards in public education, as measured by test and examination scores. This has involved the creation of an educational 'market-place', coupled with an emphasis on policies fostering greater diversity between types of school.

Despite this apparently unfavourable national policy context, what was noted in the schools that participated in the study was neither the crushing of inclusion by the so-called standards agenda, nor the rejection of the standards agenda in favour of a radical, inclusive alternative. Certainly, many teachers were concerned about the impacts on their work of the standards agenda and some were committed to views of inclusion, which they saw as standing in contradiction to it. However, in most of the schools, the two agendas remained intertwined. Indeed, the focus on attainment appeared to prompt some teachers to examine issues in relation to the achievements and participation of marginalized groups that they had previously overlooked. Likewise, the concern with inclusion tended to shape the way the school responded to the imperative to raise standards.

In trying to make sense of the relationship between external imperatives and the processes of change in schools, the study drew on the ideas of Wenger (1998) to reveal how external agendas were mediated by the norms and values of the 'communities of practice' within schools, and how they become part of a dialogue whose outcomes can be more rather than less inclusive. In this way, the role of national policy emerges from

the study in something of a new light. This suggests that schools may be able to engage with what might appear to be unfavourable policy imperatives to produce outcomes that are by no means inevitably non-inclusive.

Together, the findings of these two studies lead to reasons for optimism. They indicate that more inclusive approaches can emerge from a study of the existing practice of teachers, set within the internal social dynamics of schools. They also suggest that it is possible to intervene in these dynamics in order to open up new possibilities for moving practice forward.

Moving practice forward

Research suggests that developments of practice are unlikely to occur without some exposure to what teaching actually looks like when it is being done differently, and the presence of someone who can help teachers understand the difference between what they are doing and what they aspire to do (Elmore, Peterson, & McCarthy, 1996). It also suggests that this has to be addressed at the individual level before it can be solved at the organizational level. Indeed, there is evidence that increasing collaboration without some more specific attention to change at the individual level can simply result in teachers coming together to reinforce existing practices, rather than confronting the difficulties they face in different ways (Lipman, 1997).

At the heart of the processes in schools where changes in practice do occur is the development of a common language with which colleagues can talk to one another and, indeed, to themselves, about detailed aspects of their practice (Huberman, 1993). Without such a language, teachers find it very difficult to experiment with new possibilities. As I have explained, much of what teachers do during the intensive encounters that occur is carried out on an automatic, intuitive level. Furthermore, there is little time to stop and think. This is why having the opportunity to see colleagues at work is so crucial to the success of attempts to develop practice. It is through shared experiences that colleagues can help one another to articulate what they currently do and define what they might like to do (Hiebert, Gallimore, & Stigler, 2002). It is also the means whereby space is created within which taken-for-granted assumptions about particular groups of learners can be subjected to mutual critique.

This raises questions about how best to introduce such ways of working. Here, a promising approach is that of 'lesson study', a systematic procedure for the development of teaching that is well-established in Japan and some other Asian countries (Hiebert et al., 2002; Lo, Yan, & Pakey, 2005; Stigler & Hiebert, 1999). The goal of lesson study is to improve the effectiveness of the experiences that the teachers provide for all of their students. The core activity is collaboration on a shared area of focus that is generated through discussion. The content of this focus is the planned lesson, which is then used as the basis of gathering data on the quality of experience that students receive. These lessons are called 'research lessons' and are used to examine the teachers' practices and the responsiveness of the students to the planned activities. Members of the group work together to design the lesson plan, which is then implemented by each teacher. Observations and post-lesson conferences are arranged to facilitate the improvement of the research lesson between each trial.

Lesson study can be conducted in many ways. It may, for example, involve a small sub-group of volunteer staff, or be carried out through departmental or special interest groupings. It can also happen across schools, and is then part of a wider, managed network of teachers working together (Ainscow, Booth, & Dyson,

2006). The collection of evidence is a key factor in the lesson study approach. This usually involves observation of student responses and the use of video recording. Emphasis is also placed on listening to the views of students in a way that tends to introduce a critical edge to the discussions that take place.

Creating interruptions

Our own research has further confirmed how the use of evidence can help to create space for reappraisal and rethinking by interrupting existing discourses, and by focusing attention on overlooked possibilities for moving practice forward (Ainscow, Howes, Farrell, & Frankham, 2003; Miles & Ainscow, 2011). Particularly powerful techniques in this respect involve the use of mutual observation, sometimes through video recordings (Ainscow, 1999, 2003), and evidence collected from students about teaching and learning arrangements within a school (Ainscow & Kaplan, 2006; Messiou, 2012; Miles & Kaplan, 2005). Under certain conditions such approaches provide interruptions that help to make the familiar unfamiliar in ways that stimulate self-questioning, creativity and action. In so doing, they can sometimes lead to a reframing of perceived problems that, in turn, draws the teacher's attention to overlooked possibilities for addressing barriers to participation and learning.

Here my argument is informed by the work of Robinson (1998) who suggests that practices are activities that solve problems in particular situations. This means that to explain a practice is to reveal the problem for which it serves as a solution. So, in working closely with practitioners, inferences can be made about how teachers have formulated a problem and the assumptions that are involved in the decisions made. Our research has also shown how initial formulations are sometimes rethought as a result of an engagement with various forms of evidence (Ainscow, Booth, & Dyson, 2006)

However, such inquiry-based approaches to the development of inclusive practices are far from straight-forward. An interruption that is created as a group of teachers engage with evidence may not necessarily lead to a consideration of new ways of working. We have also documented examples of how deeply held beliefs within schools may prevent the experimentation that is necessary in order to foster the development of more inclusive ways of working (Howes & Ainscow, 2006, Ainscow & Kaplan, 2006). This reminds us that that it is easy for educational difficulties to be pathologized as difficulties inherent within students. This is true not only of students with disabilities and those defined as having special educational needs, but also of those whose socio-economic status, race, language and gender renders them problematic to particular teachers in particular schools. Consequently, it is necessary to explore ways of developing the capacity of those within schools to reveal and challenge deeply entrenched deficit views of 'difference', which define certain types of students as 'lacking something' (Trent, Artiles, & Englert, 1998). This involves being vigilant in scrutinizing how deficit assumptions may be influencing perceptions of certain students.

LINKING INCLUSIVE SCHOOL DEVELOPMENT TO THE WIDER CONTEXT

The approach I have outlined so far is based on the idea of those within schools collecting and engaging with various forms of data in order to stimulate moves to create more inclusive schools. Our research provides convincing evidence of the potential of this approach (see: Ainscow, Booth, & Dyson, 2006; Ainscow et al., 2012; Miles & Ainscow, 2011). However, it has also thrown light on the difficulties in putting such an

approach into practice within current policy contexts. This made us analyse the limitations of within-school strategies, leading us, in turn, to argue that these should be complemented with efforts to encourage greater cooperation between schools, and between schools and their wider communities.

School-to-school collaboration

In recent years, my colleagues and I have carried out a series of studies that have generated considerable evidence that school-to-school collaboration can strengthen improvement processes by adding to the range of expertise made available (Ainscow, 2010; Ainscow & Howes, 2007; Ainscow, Muijs, & West, 2006; Ainscow, Nicolaidou, & West, 2003; Ainscow & West, 2006; Ainscow, West, & Nicolaidou, 2005; Muijs, Ainscow, Chapman, & West, 2011; Muijs, West, & Ainscow, 2010). Together, these studies indicate that collaboration between schools has an enormous potential for fostering the capacity of education systems to respond to learner diversity. More specifically, they show how collaboration between schools can help to reduce the polarization of schools, to the particular benefit of those students who seem marginalized at the edges of the system, and whose performance and attitudes cause increasing concern.

The most convincing evidence about the power of schools working together comes from my recent involvement in the Greater Manchester Challenge. This 3-year initiative, which involved over 1,100 schools in 10 local authorities, had a government investment of around £50million (see Ainscow, 2012, for a detailed account of this initiative). The decision to invest this large amount reflected a concern regarding educational standards in the city region, particularly amongst children and young people from disadvantaged backgrounds. The adopted approach was influenced by an earlier initiative in London (Brighouse, 2007).

Influenced by the thinking developed in this chapter, the overall approach of the Challenge emerged from a detailed analysis of the local context, using both statistical data and local intelligence provided by stakeholders. This drew attention to areas of concern and also helped to pinpoint a range of human resources that could be mobilized in order to support improvement efforts. Recognizing the potential of these resources, it was decided that networking and collaboration should be the key strategies for strengthening the overall improvement capacity of the system to reach out to vulnerable groups. More specifically, this involved a series of inter-connected activities for 'moving knowledge around' (Ainscow, 2012).

Families of Schools were set up, using a data system that grouped between 12 and 20 schools on the basis of students' prior attainment and socio-economic background. This approach partnered schools that serve similar populations whilst, at the same time, encouraging partnerships amongst schools that were not in direct competition with one another because they did not serve the same neighbourhoods. Led by head teachers, the Families of Schools proved to be successful in strengthening collaborative processes within the city region, although the impact was varied.

In terms of schools working in highly-disadvantaged contexts, evidence from the Challenge suggests that school partnerships are the most powerful means of fostering improvements (Hutchings, Hollingworth, Mansaray, Rose, & Greenwood, 2012). Most notably, the Keys to Success programme led to striking improvements in the performance of some 200 schools facing the most challenging circumstances. A common feature of almost all of these interventions was that progress was achieved through carefully matched pairings (or, sometimes, trios) of schools that cut across social 'boundaries' of various kinds, including those that

separate schools that are in different local authorities (Ainscow, 2013). In this way, expertise that was previously trapped in particular contexts was made more widely available.

Another effective strategy to facilitate the movement of expertise was provided through the creation of various types of hub schools. So, for example, some of the hubs provided support for other schools regarding ways of supporting students with English as an additional language. Similarly, so-called 'teaching schools' providing professional development programmes focused on bringing about improvements in classroom practice. Other hub schools offered support in relation to particular subject areas, and in responding to groups of potentially vulnerable groups, such as those categorized as having special educational needs. In this latter context, a further significant strategy involved new roles for special schools in supporting developments in the mainstream.

Beyond the school gate

The powerful impact of the collaborative strategies developed in the Greater Manchester Challenge points to ways in which the processes used within individual schools can be deepened and, therefore, strengthened. This requires an emphasis on mutual critique, within schools and between schools, based on an engagement with shared data. This, in turn, requires strong collective commitment from senior school staff and a willingness to share responsibility for system reform.

However, our research has also led us to argue that the development of schools that are effective for all children will only happen when what happens *outside* as well as *inside* the school changes (Ainscow et al., 2012). This means changing how families and communities work, and enriching what they offer to children. We have encouraging evidence of what can happen when what schools do is aligned in a coherent strategy with the efforts of other local players – employers, community groups, universities and public services (Ainscow, 2012; Cummings, Dyson, & Todd, 2011). This does not necessarily mean schools doing more, but it does imply partnerships beyond the school, where partners multiply the impacts of each other's efforts. However, our experience suggests that the success of such partnerships is dependent upon a common understanding of what they are trying to achieve.

This approach is a feature of the highly-acclaimed Harlem Children's Zone (Whitehurst & Croft, 2010), a neighbourhood-based system of education and social services for the children of low-income families in New York. The programme combines education components (e.g., early childhood programmes with parenting classes; public charter schools); health components (including nutrition programmes); and neighbourhood services (one-on-one counselling for families; community centres; and a centre that teaches job-related skills to teenagers and adults). Dobbie and Fryer (2009) describe the Children's Zone as 'arguably the most ambitious social experiment to alleviate poverty of our time' (p. 1).

INCLUSIVE CULTURES AND LEADERSHIP

It is clear, then, that becoming inclusive is likely to involve challenges to the thinking of those within particular organizations. As we have seen, it requires them to develop new working relationships within their schools and with partners beyond the school gate. It follows that working in a school that is attempting to become more inclusive is not for the faint-hearted. To be a teacher in such a school means that you need to be

able to accept and deal with questions being asked of your beliefs, ideas, plans and practices. In such a context, inter-professional challenge will be common. Therefore, those who provide leadership must model not only a willingness to participate in discussions and experimentation, but also a readiness to answer questions and challenges from their colleagues. Furthermore, they need to enable staff to feel sufficiently confident about their practice to cope with the challenges they will meet.

Inclusive school cultures

There is a body of critical literature highlighting the problems and complexities that emerge when schools attempt to develop greater inclusion (Ainscow, Booth, & Dyson, 2006). These literatures point to the internal complexities of schools as organizations, and the constraints and contradictions that are generated by the policy environments in which they exist. As such, they usefully problematize the assumptions underlying the more mechanistic approaches to improvement but stop short of saying how inclusion might actually be developed.

A more promising family of approaches to development start from the assumption that increasing inclusion is less a set of fixed practices or policies, than a continuous process of deconstructing and reconstructing (Skrtic, 1991; Thomas & Loxley, 2001) – what Corbett and Slee (2000) have called the 'cultural vigilantism' of exposing exclusion in all its changing forms and seeking instead to 'foster an inclusive educational culture'. Where writers have addressed what this implies for practice, they tend to give particular emphasis to the characteristics of schools as organizations that stimulate and support this process of interrogation. The American scholar Tom Skrtic argues that schools with what he calls 'adhocratic' configurations are most likely to respond to student diversity in positive and creative ways (Skrtic, 1991). Such schools emphasize the pooling of different professional expertise in collaborative processes. Children who cannot easily be educated within the school's established routines are not seen as 'having' problems, but as challenging teachers to re-examine their practices in order to make them more responsive and flexible. Similarly, I have previously suggested certain 'organisational conditions' – distributed leadership, high levels of staff and student involvement, joint planning, a commitment to inquiry and so on – that promote collaboration and problem-solving amongst staff, and which, therefore, produce more inclusive responses to diversity (Ainscow, 1999).

These themes are supported by a review of international literature by my colleagues that examined the effectiveness of school actions in promoting inclusion (Dyson, Howes, & Roberts, 2004). The review concludes that there is a limited, but by no means negligible, body of empirical evidence about the relationship between school action and the participation of all students in the cultures, curricula and communities of their schools. In summary, it suggests that:

- Some schools are characterized by an 'inclusive culture'. Within such schools, there is some degree of consensus amongst adults around values of respect for difference and a commitment to offering all pupils access to learning opportunities. This consensus may not be total and may not necessarily remove all tensions or contradictions in practice. On the other hand, there is likely to be a high level of staff collaboration and joint problem-solving, and similar values and commitments may extend into the student body, and to parent and other community stakeholders.

- The extent to which such 'inclusive cultures' lead directly and unproblematically to enhanced student participation is not clear. Some aspects of these cultures, however, can be seen as participatory by definition. For instance, respect for diversity from teachers may itself be understood as a form of participation by children within a school community. Moreover, schools characterized by such cultures are

also likely to be characterized by forms of organization (such as specialist provision being made in the ordinary classroom, rather than by withdrawal) and practices (such as constructivist approaches to teaching and learning) that could be regarded as participatory by definition.

- Schools with 'inclusive cultures' are likely to be characterized by the presence of leaders who are committed to inclusive values and to a leadership style which encourages a range of individuals to participate in leadership functions. Such schools are also likely to have good links with parents and with their communities.

According to the review, there are general principles of school organization and classroom practice which should be followed: notably, the removal of structural barriers between different groups of students and staff; the dismantling of separate programmes, services and specialisms; and the development of pedagogical approaches (such as cooperative group work) which enable students to learn together rather than separately. It is also argued that schools should build close relations with parents and communities based on developing a shared commitment to inclusive values.

Such approaches are congruent with the view that inclusion is essentially about attempts to embody particular values in particular contexts (Ainscow, Booth, & Dyson, 2006). Unlike mechanistic views of school improvement, they acknowledge that decisions about how to improve schools always involve moral and political reasoning, as well as technical considerations. Moreover, they offer specific processes through which inclusive developments might be promoted. Discussions of inclusion and exclusion can help, therefore, to make explicit the values which underlie what, how and why changes should be made in schools. Inclusive cultures, underpinned by particular organizational conditions, may make those discussions more likely to occur and more productive when they do occur.

Leadership for inclusion

Our recent review of literature concluded that learner diversity and inclusion are increasingly seen as key challenges for educational leaders (Ainscow & Sandill, 2010). For example, Leithwood, Jantzi and Steinbach (1999) suggest that with continuing diversity, schools will need to thrive on uncertainty, have a greater capacity for collective problem-solving, and be able to respond to a wider range of learners. Sergiovanni (1992) also points to the challenge of student diversity and argues that current approaches to school leadership may well be getting in the way of improvement efforts.

Lambert and her colleagues (2002) argue for what they see as a constructivist view of leadership. This is defined as the reciprocal processes that enable participants in an educational community to construct common meanings that lead toward a common purpose about schooling. They use this perspective to argue that leadership involves an interactive process entered into by both learners and teachers. Consequently, there is a need for shared leadership, with the principal seen as a leader of leaders. Hierarchical structures have to be replaced by shared responsibility in a community that becomes characterized by agreed values and hopes, such that many of the control functions associated with school leadership become less important or even counter-productive.

The most helpful theoretical and empirical context, however, is provided by Riehl (2000), who, following an extensive review of literature, concludes that school leaders need to attend to three broad types of task: fostering new meanings about diversity; promoting inclusive practices within schools; and building connections between schools and communities. She goes on to consider how these tasks can be accomplished,

exploring how the concept of practice, especially discursive practice, can contribute to a fuller understanding of the work of school principals. This analysis leads Riehl to offer a positive view of the potential for school principals to engage in inclusive, transformative developments. She concludes:

> When wedded to a relentless commitment to equity, voice, and social justice, administrators' efforts in the tasks of sensemaking, promoting inclusive cultures and practices in schools, and building positive relationships outside of the school may indeed foster a new form of practice. (p. 71)

CONCLUSION

The arguments presented in this chapter have had a significant impact on international policy developments over the past 20 years or so, in part because of my involvement as a consultant to UNESCO. Specifically, they influenced the conceptualization of the Salamanca Statement on Principles, Policy and Practice in Special Needs Education (UNESCO, 1994). Arguably the most significant international document that has ever appeared in the special needs field, the Statement argues that regular schools with an inclusive orientation are 'the most effective means of combating discriminatory attitudes, building an inclusive society and achieving education for all'. These ideas also framed the UNESCO teacher education project, 'Special Needs in the Classroom', which led to developments in over 80 countries (Ainscow, 1999). And, more recently, the formulation in this chapter provided the conceptual framework for the 48th session of the International Conference on Education, held in 2008, and attended by Ministers of Education and officials from 153 countries (Ainscow & Miles, 2008).

Moving beyond policy statements, however, the practical implications of these proposals are, as I have suggested, deeply challenging to thinking and practice in both mainstream schools and special provision. The complex nature of these challenges is well illustrated in the 'Index for Inclusion' (Booth & Ainscow, 2011). Developed originally for use in England, the Index is a set of school review materials that has been refined as a result of over 10 years of collaborative action research in many countries (see *The International Journal of Inclusive Education*, volume 8 number 2, for articles about some of these developments). It enables schools to draw on the knowledge and views of staff, students, parents/carers, and community representatives about barriers to learning and participation that exist within their existing 'cultures, policies and practices' in order to identify priorities for change.

In connecting inclusion with the detail of policy and practice, the Index encourages those who use it to build up their own view of inclusion, related to their experience and values, as they work out what policies and practices they wish to promote or discourage. Such an approach is based upon the idea that inclusion is essentially about attempts to embody particular values in particular contexts. In other words, it is 'school improvement with attitude' (Ainscow, Booth, & Dyson, 2006).

The Index approach also involves an emphasis on collaborative inquiry, and, as we have seen, leadership practices are central to these ways of working. In particular, there is a need to encourage coordinated and sustained efforts around the idea that changing outcomes for all students is unlikely to be achieved unless there are changes in the behaviours of adults. Consequently, the starting point for inclusive school development must be with teachers: in effect, enlarging their capacity to imagine what might be achieved, and increasing their sense of accountability for bringing this about. This may also involve tackling taken for granted assumptions, most often relating to expectations about certain groups of students, their capabilities,

behaviour and patterns of attendance. At the same time, such efforts have to be linked to what is happening in other schools and in the wider community.

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11

Sui Ban Jiu Du: An Approach Toward Inclusive Education in China

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Sui ban jiu du, literally translated as 'learning in a regular classroom' (LRC), means 'receiving special education in general education classrooms', and is regarded as a practical form of inclusion in China.

INTRODUCTION

Sui ban jiu du refers to an educational form of provision for children with disabilities to access general education in regular classes together with children without disabilities (Chen, 2004). Although it has been practiced in China, especially in the rural areas, since the 1950s, it was initially considered an expedient effort to enroll some students with disabilities into general schools and the practice was constrained by a lack of educational resources (Hua, 2003). However, in China today, it is generally agreed that *sui ban jiu du* is a form of special education for students with disabilities adopted by China's special education professionals in the 1980s under the influence of Western mainstreaming practices in light of China's specific situation and cultural context. This chapter traces the development of *sui ban jiu du* and considers the achievements and challenges for contemporary practice and more recent LRC initiatives.

As shown in Table 11.1, many students with disabilities were enrolled in general schools in the 1980s but they were not counted in Ministry of Education of the People's Republic of China (MOE, before 2006, it was called the State Education Commission) statistics. This can be seen in the large discrepancy between the percentage of students with disabilities receiving an education reported by MOE and that reported by the China Disabled People's Federation (CDPF). These data provide important evidence of the practice of *sui ban jiu du* since the 1980s (CDPF, 1987), and they underscore the emphasis that was placed on special schooling as an important form of provision for children with disabilities in education policy.

Table 11.1 Enrollment ratio of children with three types of disabilities from MOE and CDPF in 1987

	MOE (%)	CDPF (%)
Hearing impairment	5.5	45.0
Visual impairment	2.7	42.9
Intellectual disabilities	0.33	61.9

However, the practice of *sui ban jiu du* was acknowledged by MOE which noted that most children with mental retardation who were receiving schooling were in the general primary school (MOE, 1983). In December 1987, the term *sui ban jiu du* was officially used by the MOE in the (draft) Teaching Plan for Full-time School (classes for students with mental retardation). This plan noted that:

in the process of universalization of the primary education, most of the children with mild mental retardation have been enrolled into the

local general primary school … this form of education has facilitated the interaction between children with mental retardation and typical children, it would be a feasible approach for solving the issue of schooling for children with mental retardation in areas that have not yet established any classes for children with mental retardation especially in rural areas.

By 1994, the MOE had targeted three types of disabilities for special education: those with visual impairments (including blindness and low vision), hearing impairments (including the deaf and hard of hearing), and mild intellectual disability. Schools with resources were allowed to enroll students with moderate intellectual disabilities (MOE, 1994).

Also in 1994, the world community adopted the 'Salamanca Statement' which called for inclusive education as a strategy to achieve the global commitment to 'Education for All' (UNESCO & Ministry of Education and Science, Spain, 1994). In Western culture, inclusive education could be traced back to the social movements for equality and freedom but *sui ban jiu du* was adopted to enable children with disabilities to enroll in ordinary schools in local vicinities to achieve compulsory education in a rapid manner for economic purposes (Deng, M., & Zhu, Z, 2007). As will be shown below, this difference has influenced the development of inclusive education in China.

Deng and Zhu's (2007) research found that there were two different contemporary viewpoints about *sui ban jiu du.* One tends to equate it with the Western ideas of mainstreaming, or inclusive education (e.g., Chen, 1996, 1997; Mu, Yang, & Armfield, 1993; Pott, 2000, cited in Deng, M., & Zhu, Z, 2007). These researchers use the terms mainstreaming, inclusive education or inclusion during international academic exchanges to describe the circumstances of China's LRC. The other viewpoint holds that the Chinese concept of *sui ban jiu du* means that there are essential differences between LRC and the Western concepts of mainstreaming or inclusive education (Piao, 1992; Xu, Piao, & Gargiulo 1993, cited in Deng, M., & Zhu, Z, 2007). Yu, Su and Liu (2011) summarized the differences as follows:

- *Sui ban jiu du* is rooted in a history and culture of traditional Confusion educational philosophy and embodies the political and educational concepts of socialism.
- *Sui ban jiu du* retains certain influence from the Soviet Union, such as placing importance on remedying the students' deficiencies.
- *Sui ban jiu du* is a Chinese pragmatic strategy for placing more children with disabilities, who had been previously been denied an education, into schools.
- *Sui ban jiu du's* present services are directed primarily at three categories of disabilities – visual impairment, hearing impairment, and mental retardation – and many children with severe or multiple disabilities and children with other types of disabilities have not yet entered ordinary schools and do not have opportunities for school education.

CULTURE AS A CONTEXT: CONFUCIUS'S VIEW ON DISABILITIES AND THE DEVELOPMENT OF SPECIAL EDUCATION IN CHINA

The philosophy of Confucius is deeply rooted in Chinese culture. An early recorded classic by Confucius describes how the ideal society cares for its members:

When the Great Way is practiced, the world is for the public. Those with virtue and those with ability are chosen and used. People value trustworthiness and cultivate the harmony with each other. Thus people do not treat only their parents like parents, nor do people treat only their sons like sons. That makes the aged have the appropriate last years, those in their prime have the appropriate employment, and the young have the appropriate growth and development. Elderly men with no spouses, widows, orphans, elderly people without children or grandchildren, the handicapped, the ill – all are provided for. (Confucius, translated by Feng, 2010, pp. 2–3)

This classic expressed the idea of a *da tong* society. Literally, *da tong* means 'the Great Together'; it is the ideal society that has been pursued for thousands of years, up to the present day. Chinese former President Hu, 2005, used the term 'harmony society' to re-express this idea.

The idea that a good society should care for and educate people with disabilities has been influential through time (Zhang, Ma, & Du, 2000, pp. 202–205). In addition to being the earliest statement about how people with disabilities should be treated in China, the quote from Confucius also represents a philosophical base for special education (Yu et al., 2011). The positive influence of the Confucian view on disability encourages sympathy and kindness by the public, and welfare and education from the government. However, this view also leads to a 'charity model of disability': it implies that what is done for people with disabilities is based on pity. Under a charity model, education and employment are not basic rights and people with disabilities must mainly depend on goodwill, which is not always reliable.

The cultural idea of *da tong* underpins the attitude of many Chinese toward special education (Yu et al., 2011). For example, while some vocational training for people with disabilities was documented in ancient China from about 400 BC, it was not until 1874, due to religions influence from the West, that the first special school for children with visual impairment was set up in Beijing (Zhang et al., 2000). Until 1948, there were 42 special schools serving 2,380 students nationwide in China. These were mostly run by charitable institutions as private schools.

In 1951, when special education became part of the public education system, the goal of educating children with disabilities turned to training laborers with a consciousness of socialism in order to compensate for their physiological and psychological defects. In the following decades, until the 1980s, the main body of special education in China was education in special schools. Still only very few children with disabilities could access special schools and some children with disabilities were enrolled in general schools. In this way, the practice of *sui ban jiu du*, represented an initial approach to provide more children with disabilities access to education and, as noted above, it was confirmed by policy at end of the 1980s.

Subsequently, China has been developing a more sufficient education system to meet the needs of children with disabilities (see Table 11.2). Many professionals have begun to advocate for a shift from a 'charity model' to a 'society model' under the influence of the philosophy of inclusion from the West; they argue that disability is an issue for the whole society and an issue of human rights. The society model promotes a positive view of disability, embracing people with disabilities and making them true members of society (Wang, 2006). It is argued that this is a key element of the 'harmony society'. This shift in thinking is apparent in a recent amendment to the national law, the Law of the People's Republic of China (PRC) on the Protection of Persons with Disabilities (State Council of the People's Republic of China, 2008).

CHALLENGES FOR SUI BAN JIU DU

China, a developing country with a population of 1.3 billion, is home to the world's largest education system. While many efforts have been made by professionals, teachers, parents, and policymakers to improve the quality of special education, particularly with regard to *sui ban jiu du*, the development of inclusive education in China is set against a backdrop of other efforts addressing issues of economic capabilities, population pressure, and social pressure. These pressures raise many challenges for the development of inclusive

education.

Firstly, one of the key challenges is the social attitude towards disability. In traditional culture, Confucius's views on disability emphasize a focus on charity and love which have lead to educational placements in mainly segregated settings where general education and special education co-exist in two parallel tracks that rarely intersect. The majority of people in the community are supportive of providing education to children with disabilities, but they think that children with disabilities should be placed in special schools or institutions specifically established for them to receive education (Peng, 2011). In 2009, a survey conducted in Beijing (Wang, Peng, & Wang, 2011) showed that 100% of general school principal respondents had heard of *sui ban jiu du*, but of these, more than 60% were unwilling to accept children with disabilities in their own schools. Nearly 86% of the general school teacher respondents were unwilling to accept the children with disabilities into their classes. In addition, 30% of parents of children with disabilities surveyed did not want their children *sui ban jiu du*, being educated in the general schools, due to the fear of discrimination and the unguaranteed quality of education. Wang et al. (2011) also interviewed the community residents, university teachers, and researchers in Beijing and Shanghai, and found that many people believe that *sui ban jiu du* does not work for children with disabilities learning in general schools. This social atmosphere and attitude creates enormous barriers for the development of inclusive education in China.

Table 11.2   Numbers (million) of students with disabilities access to education

	All types of disabilities	Visual impairment	Hearing and speech impairment[i]	Intellectual disability	Other disabilities
Projection data from Sample survey[ii]	246.0	13.0	28.0	76.0	129.0
Special education schools (classes)[iii]	17.0	0.9	8.9	7.0	0.2
Sui ban jiu du[iv]	25.6	4.0	2.4	13.9	5.3
Not in school[v]	14.5	1.7	1.5	3.7	7.6
Enrolled in general schools, but not receiving special education services	188.9	6.4	15.2	51.4	115.9

Notes. i: including hearing impairment and speech impairment; ii: China Disabled Persons' Federation (2006); iii, iv: MOE of the People's Republic of China (2010); v: China Disabled Persons' Federation (2010).

Secondly, challenges resulting from economic factors also create barriers to inclusion. As a developing country, China experiences especially uneven economic development resulting in the unbalanced distribution of educational resources between urban and rural areas, and between different regions and social strata. Inadequate investment in education and a lack of educational resources remain problems in remote areas and rural areas where economic development has lagged behind more populated regions. Significant regional differences exist in compulsory school attendance rates for children with disabilities. While enrollment rates for these children are higher in economically developed areas, such as Beijing, Jiangsu, and other regions, enrollment rates are significantly lower in economically less developed regions and remote areas, such as Xinjiang, Tibet, and other rural regions. In rural areas enrollment is less than 70% whereas overall enrollment in developed areas is more than 95%, and for Shanghai it is 99% (CDPF, 2010).

Thirdly, demographic factors have brought great challenges to the development of inclusive education. As the most populous country in the world, the number of people with disabilities is also large. According to 2006 survey data from the CDPF, the total number of persons with disabilities of all types had increased, and among this group, 246 million were school-age children (aged 6–14 years). At the end of 2010, there were

still 145,000 school-age children with disabilities who were not able to access to school education (CDPF, 2010).

DEVELOPMENT AND PRACTICE OF *SUI BAN JIU DU*

In 1989, the first regulation regarding *sui ban jiu du* was set by the Chinese government and was approved for distribution by the State Council General Office. This move promoted a number of suggestions on the development of special education by the MOE and other departments, requiring that: 'local governments should take full advantage of the existing general primary schools actively enrolling children with disabilities who are able to learn in regular classes'; and 'general schools which enroll children and youth with disabilities to Sui ban jiu du, should keep the same length of schooling' (State Council General Office, 1989, pp.1-2).

In 1994, MOE issued 'Provisional regulation on implement of Sui ban jiu du of children and juvenile with disabilities' and the policy framework on *sui ban jiu du* began to take shape. The same year, '*sui ban jiu du*' was written into China's first special education regulation, the 'Regulation on Education of people with Disabilities of People's Republic of China' (p.1). This regulated 'Sui ban jiu du in the general school' as one of the ways of the children with disabilities were to receive compulsory education (Article 17).

In 2006, the regulation on *sui ban jiu du* was added to the newly revised law on compulsory education, the 'Compulsory Education Law of the People's Republic of China' State Council of the People's Republic of China. This regulation stated that general schools should accept school-age children with disabilities who have the capacity to receive general education, and provide supports for their learning and rehabilitation (Article 19). The Law of the People's Republic of China on the Protection of Persons with Disabilities (State Council of the People's Republic of China, 1990, 2008) did not use the term *sui ban jiu du*, but the authority for general schools accepting children with disabilities was clearly specified in Article 25 (State Council of the People's Republic of China, 2008):

> general educational institutions should provide education for people with disabilities who with capacity to receive general education and provide accommodations and supports for their learning. General primary and junior middle schools must admit children and juvenile with disabilities who are able to adapt learning and life in general settings.

Collectively, these policies on *sui ban jiu du* established this educational provision for children with disabilities in regular settings as a right. As a result, there has been an increase in the enrollment rate of the children with disabilities in compulsory general education level. In 2008, the total number of children with disabilities who received education was 417,400. Among this number, 64.87% were placed in LRC settings or special classes within a regular school (MOE, 2008). The national long-term education reform and development plan (2010–2020) promulgated in 2010 states that: 'All types of schools at all levels should actively create conditions for receiving people with disabilities into school, expanding the Sui ban jiu du in regular class and the general school special education class size' (State Council of the People's Republic of China, 2008, Article 29).

As can be seen, the enactment, implementation and revision of a series of laws and regulations related to *sui ban jiu du* has gradually established it as an important policy framework for inclusive education which benefits the development of the practice of *sui ban jiu du* in China (Central Committee of the Communist Party of China, & State Council [CPC & SC], 2010).

PRACTICE AND IMPLEMENTATION

Contemporary practice of *sui ban jiu du* has been traced to work with children with visual and hearing impairments (Liu, 2008). In 1987, Mr. Xu Bailun initiated the Golden Key Project, an education program for children with visual impairment that was successful in helping 11 blind children who had dropped out of school back into the local general schools in Shanxi Province. During the same year, the practice of *sui ban jiu du* for deaf children was pioneered in Hailun City, Heilongjiang Province. In this project, 85 deaf children were enrolled in the local general schools to receive compulsory education. Subsequently Beijing, Hebei, Jiangsu, Liaoning, and other cities and provinces carried out similar experiments (Xiao, 2005).

In November of 1988, the first national conference on special education was held, and the conference report committed 'to have plan to set up special education classes or receive the children with disabilities who could follow up the general class teaching to Sui ban jiu du in some general primary schools'. In 1989, the State Board of Education commissioned Beijing, Hebei, Jiangsu, Shandong, Heilongjiang, and other provinces and cities covering eight areas across China, to conduct *sui ban jiu du* pilot projects to enroll children with visual impairments, hearing impairments, as well as intellectual impairments into general education settings. On-site meetings and seminars were convened and professionals exchanged the experiences of the *sui ban jiu du* in Wuxi, Changping, Shijiazhuang, Changle, Jiamusi, and other areas. Different districts in both rural and urban areas have explored multiple approaches to including children with disabilities in general classrooms. Local education authorities have made efforts to provide a more effective educational system emphasizing on short-term in-service teacher training and the establishment of resource rooms to provide pull-out individualized tutoring for students with disabilities.

In 1994, the MOE convened a National Conference on *sui ban jiu du* in Yancheng, Jiangsu Province. This conference reported on practice and exchanged experiences about the implementation of *sui ban jiu du* in different areas. In July 1994, MOE issued Comments on the *sui ban jiu du* of Children with Disabilities:

> Sui ban jiu du of the children and adolescents with disabilities, to learn in a regular class room, is one of the primary education form in the process of development and popularization of compulsory education of the children with disabilities, and it meets the needs of establishing a new pattern of compulsory education for children with disabilities under China's national conditions; and also requires all levels of educational administrative departments to attach great importance to and actively carry out Sui ban jiu du of Children with Disabilities, and gradually improved Sui ban jiu du.

With this, *sui ban jiu du*, as the placement approach for children with disabilities accessing education, was in full swing in China. The first official statistics from the statistics department in 1994 reported that 115,300 students with disabilities were receiving education in general schools. This quickly increased to 211,500 in 1997 (MOE, 2001). The percentage of students with disabilities receiving general education as a percentage of all students with disabilities receiving compulsory education has remained at 60% or more. In 2010, the number of students with disabilities in *sui ban jiu du* nationwide was 259,601, accounting for 60.99% of all the students with disabilities in school (MOE, 2010).

ISSUES AND CHALLENGES

Despite the increases in the number of students with disabilities served under *sui ban jiu du*, problems related with quality of *sui ban jiu du* have persisted in part because of inefficient and low level administration (MOE,

2003). In 2003, the MOE began to pilot a support system for *sui ban jiu du* in 100 counties (districts). In the subsequent summary report in 2004, the Deputy Director of Basic Education of the Ministry of Education MOE, Li Tianshun stated:

> Sui ban jiu du is an important education model for special education in China. The period of practice of this model in China is still relatively short, the difficulties faced are huge, and the problems encountered are plenty. Further studies need to be conducted to solve the problems in the Sui ban jiu du, and strive to improve the quality of Sui ban jiu du, it will be an important task for the current and future development of special education.(p.1)

In 2010, the MOE restated this position and announced:

> Let Sui ban jiu du carry more important responsibilities in the development of special education, provide as much as or even more than average funding per student in special schools for students with disabilities in regular school settings, and continuously improve the quality of Sui ban jiu du.(p.1)

Li (2011) and other researchers identified key main issues to be addressed. Each of these are discussed below.

Low numbers of children with special needs in *sui ban jiu du*   According to the 2010 MOE statistics, the total number of students in compulsory education in China was 152,200,334. Among these, only 255,662 were students with disabilities in regular classes, accounting for only 0.17% of general school students. The main reason for this low representation is thought to be the way that students are counted in the statistics. The main target population for *sui ban jiu du* has remained children with intellectual disabilities, hearing impairments, and visual impairments. These three disability types accounted for 79% of the students enrolled in *sui ban jiu du* based on the MOE statistics. However, many children with disabilities are enrolled in general schools but have not been calculated in official statistical investigations because they have not received special education services in addition to the general education students without disabilities received. This situation helps to explain the discrepancy between the low levels of students with disabilities represented in the 2010 statistics compared to the much higher numbers reported above. It also suggests that the situation in China is complex and statistical information alone is insufficient to explain *sui ban jiu du* as a practical strategy for implementing inclusive education.

Other factors also contribute to the low numbers of students with disabilities identified as *sui ban jiu du*. For example some parents of children with disabilities refuse to allow their children to undergo assessment for special education services due to lack of knowledge of disabilities and negative attitudes towards disability. As a result, the schools fail to screen and identify many students with mild level disabilities.

Table 11.2 provides an illustration. This table is based on 2006 projection data from a national sample survey of people with disabilities (CDPF, 2008a), and 2010 statistics from the MOE and the CDPF. The table shows 76.8% of children with disabilities were enrolled in general schools but not receiving special education services because those students were not identified as students under *sui ban jiu du*. The target population for *sui ban jiu du* (intellectual disability, hearing impairment, visual impairment) shows relatively higher percentages receiving special education services, compared to the students with the other types of disabilities.

Quality concerns on *sui ban jiu du*   The large number of students with disabilities enrolled in general schools has brought great challenges to general education. Some scholars have noted that the existing special education laws and regulations have emphasized that general schools should enroll school-age children and youth with disabilities who are capable of adapting to general education. The policy documents emphasize the full implementation of *sui ban jiu du*, but to date there are no regulations for the funding for general schools enrolling children with disabilities, the management of issues related to the education of children with disabilities, or the qualification and training of regular class teachers who will work in a *sui ban jiu du* class (Peng, 2010).

In general, school teachers do not receive any training regarding students with disabilities. They lack knowledge and skills about providing appropriate education to students with disabilities in regular classes. Class teachers differ in their attitudes of acceptation of students with disabilities, and there is a lack of sufficient support for those teachers who do accept these students. As a result, it is difficult to provide appropriate education to meet the needs of students who are *sui ban jiu du*. Instead, the situation is one of *sui ban jiu zuo* or *sui ban hun du*, literally meaning 'just sitting in the regular class' or 'just spending time in the regular class'. These terms reflect the ineffectiveness of *sui ban jiu du* (Li, 2010; Ma & Tan, 2010; Peng, 2011; Yu et al., 2011). Improving the quality of *sui ban jiu du* has become an urgent need for improving inclusive education in China.

A support system for *sui ban jiu du*   In China, there are still a considerable number of professionals who believe that:

> Sui ban jiu du as the primary form of special education, is a crude approach, a reaction to the lack of adequately resourced special schools, a low-cost run education model, and an expedient solution for children with disabilities to access education. (Li, 2011, p. 5)

As a matter of fact, the education of children with disabilities in the regular class needs financial support, material resources, and qualified teachers. A system of support to enable general schools to establish resource rooms and hire qualified special education teachers to provide professional support to the regular classroom teachers is needed. A sufficient support system is needed to enhance the quality of *sui ban jiu du*, and it will take time to find solutions to the problem of establishing support system during the implementation of *sui ban jiu du*.

OUTCOMES OF SUI BAN JIU DU

The original purpose of the *sui ban jiu du* was to give more students with disabilities access to compulsory education. To this extent, *sui ban jiu du* has achieved great outcomes. It has become the main form of special education in China, and plays a very important role in establishing inclusive education for children with disabilities. In 1989, when *sui ban jiu du* was first practiced on a national scale, the enrollment rate of school-aged children with visual impairment and hearing impairment was less than 6% (MOE, 1989). However, by 1995, the enrollment rate of children with intellectual, hearing and visual impairments enrolled under *sui ban jiu du* in compulsory education reached 62.5% of children with disabilities enrolled in school. This increased to 77.2% in 2000, and 80% in 2005 (CDPF, 2008b). Perhaps most importantly, *sui ban jiu du* has broken the longstanding segregation between children with disabilities and children without disabilities. Although the

findings from research are not entirely consistent, most researchers have found that students with disabilities studying in the regular class benefit socially from the experience. One study showed that while the social competences of students with disabilities in *sui ban jiu du* settings were relatively lower in all grades than the typically developed students, their social competence gradually improved while the incidence of behavioral problems gradually decreased (Zan, Liu, & Chen, 2002). Other researchers noted that children with disabilities developed good social skills in the general schools (Qian & Jiang, 2004), they adjusted well to school life, had high satisfaction with the regular school settings (Yang, 2010), and they were willing to learn in regular school (Zhu, Zhao, & Liu, 2009).

With the continuous development of *sui ban jiu du*, more and more general educators have changed their attitudes towards students with disabilities. Xiao (2005) reported that they were less likely to reject students with disabilities, and more willing to accept these children in their classes. Thus, many schools are now more willing to accept students with disabilities. Some general schools have begun to develop more effective methods for *sui ban jiu du* and to try to resolve the problems arising in the practice. A recent literature review of research on *sui ban jiu du* for children with intellectual disabilities from 1990 to 2010 found that in previous decades, research was related to the educational placement of children with intellectual disabilities. In 2000 to 2010, researchers are beginning to focus on the study of the quality of teaching and learning in *sui ban jiu du* (Xiong & Wang, 2011).

Research has shown inconsistent results for students' academic development in *sui ban jiu du*. Some studies suggest that students with disabilities have good academic achievement (Liu & Zhu, 2011; Yang, 2010); other studies have shown that the academic achievement of the students with disabilities in regular classes was not very good (Liu, Ma, & Ma, 2010; Qin & Fen, 2009; Wu & Liu, 2010). As the quality of *sui ban jui du* improves, and more research on teaching and learning takes place, a clearer picture of students' academic achievement should emerge.

The implementation of *sui ban jiu du* has fundamentally changed the isolation of special education as a form of provision in China. The implementation of *sui ban jiu du* has promoted communication between special educators and general educators. Today, there are more intersections between the two parallel tracks of general education and special education. With more communication between special schools and general schools, special education teachers and general teachers can support each other in various ways to discuss assessment, referrals, placement, and education opportunities for students with disabilities, and to learn from each other regarding the teaching methods, sharing of effective strategies, and improve the quality of education by working together.

As a result, the educational placement of children with disabilities has been extended from one option special schools to diverse placements including *sui ban jiu du*, special education classes, and special education schools. With more and more children with disabilities accessing regular classes in general schools, *sui ban jiu du* and special classes in general schools will become principal forms of provision with special schools as the backbone of the multi-placement model in China. The more people know about children with disabilities, and understand special education, the greater the promotion of social civilization and progress. In this way, the classic Chinese idea of *da tong* society becomes a part of the future 'harmony society'.

CONCLUSION: *SUI BAN JIU DU* AS AN APPROACH TO INCLUSIVE EDUCATION

In this chapter, we have shown how the goal of *sui ban jiu du* has changed over time to improve the quality of practice while continuing to enroll increasing numbers of students with disabilities in general schools. To this end, several strategies for future development have been suggested by Chinese professionals (Liu, 2009; Xiao & Qi, 2009; Yu, 2009, Yu et al., 2011):

- Integrating general and special education, building a platform for working together to improve the quality of the administration of *sui ban jiu du*.
- Formulating a regulation on *sui ban jiu du* with more specific rules and guidance for schools and related agencies. Also, making a broader definition of children eligible to receive education in regular settings.
- Increasing the financial support of *sui ban jiu du*; the government should set a standard amount of financial support for children with disabilities to ensure the general school is able to provide appropriate educational resources.
- Establishing a support system to provide related services including multi-disciplinary teams and specific guidance for effective collaboration (especially between the medical system and educational system), as well as parental involvement.
- Setting up a quality monitoring system with different levels to monitor and ensure the quality of *sui ban jiu du* according to scientific standard and process.
- Creating a national standard of special/inclusive education and national special/inclusive education teacher certification system to guild pre-service and in-service teacher education.

As national level educational policy emphasizes the importance of *sui ban jiu du* and sets out more operational regulations on implementation (e.g., the National Plan for Medium- and Long-Term Education Reform and Development, 2010–2020 [CPC & SC, 2010]), these recommendations will help to establish an effective process of education for students with disabilities in China. Moreover, the recently amended Regulations on Education of People with Disabilities and Ways on the *sui ban jiu du* of Children with Disabilities to be enacted in 2012, further clarify the importance of *sui ban jiu du* and identify the related issues to be addressed. In 2011, a new trial curriculum standard for teacher education was adopted by the MOE. This requires integrating 'respect for the individual differences of the students' into the pre-service teacher education curriculum for preschool teachers, general primary and middle school teachers; and sets a module of 'special children education' in the framework of 'in-service teacher education curriculum' (MOE, 2011). Clearly, there is a growing recognition that the quality of teachers for *sui ban jiu du* is directly related with the quality of *sui ban jiu du*. Additionally, there is a need for programs to prepare a range of different service practitioners in China including physical therapists, occupational therapists, assistive technology specialists and teacher assistants to support class teachers. This is considered especially important because of the large class sizes in China.

Recently some provinces (cities) have put forward specific operational policies to move *sui ban jiu du* forward. For example, the Shanghai city government set a requirement that general schools should hire a full-time special education teacher if there are students with disabilities learning in regular classes (*sui ban jiu du*). If there are more than five students in *sui ban jiu du*, an appropriate increase in number of full-time special education teachers is required, and the policy specifies there should be full-time counseling teachers in every district special education resource center with responsibility for providing services and management for students with disabilities learning in regular classrooms and students who are 'learning at home' (Shanghai Municipal People's Government General Office [SMPGGO], 2012). These developments will play a substantial role in promoting inclusive education in China.

Finally, it is anticipated that the eligible population of *sui ban jiu du* will gradually extend from the current

three types of disabilities to all children with disabilities. Some regions with sufficient resources such as Zhejiang Province is working to accept children with all types of disabilities into *sui ban jiu du*. Furthermore, the eligible age range is likely to extend from of compulsory school age to all ages including preschool, high school, vocational and higher education. Thus it is expected that the number of students in *sui ban jiu du* will grow rapidly in coming years. To accommodate this anticipated growth, the government requires an educational administration that can track the enrollment of students with disabilities in *sui ban jiu du* settings as part of the evaluation of compulsory education. Moreover, the government will need to provide support in the areas of management, teacher development, funding, facilities, and equipment to implement high quality *sui ban jiu du*. The key challenge will be to create a favorable social environment for children with disabilities learning together in regular classrooms as a key component of the support system.

Sui ban jiu du has been practiced for over two decades in China. Its original intention was to increase enrollment of children with disabilities in school, and for many regions of China, that will continue to be the mission of *sui ban jiu du* in the foreseeable future. But at the same time, the Chinese government is constantly striving to overcome difficulties with the practice of sui *ban jiu du* and to improve the quality of *sui ban jiu du* by developing new policies, improving the quality of teachers, building a support system, and working towards an effective model for the implementation of inclusive education in developing countries.

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12

Entry, Engagement and Empowerment: Dilemmas for Inclusive Education in an Indian Context

Nidhi Singal

INTRODUCTION

The Indian education system, like the society it nourishes, is set in a landscape of diversity and vastness. In a country with the second largest population in the world, 22 official languages and various socio-economic groupings, the education system must account for this multiplicity. India has the largest number of school-aged children in the world with 146.4 million in the 6–10-year age group (UNESCO, 2005). The teaching workforce comprises 5.79 million teachers at just the elementary level. Little (2010, p. vii) acknowledging this enormity of the system notes, 'The scale of India's system of elementary education is unimaginable to most education policymakers and planners around the world'. The Constitution of India adopted in 1949 granted education as a directive principle;[1] however, in 2009, with the passing of the Right of Children to Free and Compulsory Education Act (RTE Act), it was established as a fundamental right, under Article 21A of the Indian constitution. The Article states that 'The State shall provide free and compulsory education to all children of the age of six to fourteen years in such manner as the State may, by law, determine'. While advocacy groups have pointed out various inadequacies in this law, its adoption reflects changing perceptions towards education amongst the masses.

Even though it is common to hear harsh criticism of the Indian education system, one cannot overlook that it has also been a story of immense progress. In the first post-Independence Census (1951), only 9% of women and 27% of men were literate; by 2002 this scenario had changed significantly. The census identified 65% of the population as literate.[2] Nonetheless, India remains one of the few countries least likely to meet the 2015 goals of EFA. Recent estimates suggest that 27 million primary-age children remain out of school (UNESCO Institute for Statistics, 2012), while only 63.5% complete 5 years of schooling (UNESCO, 2006). Given the heterogeneity of the population, various dimensions of exclusion can be identified in the educational landscape; amongst these, issues of castes and gender have historically featured heavily in the Indian discourse. However, in recent years, children with disabilities have become more visible in various policies, which is not surprising given that India has been a signatory to a range of international commitments, such as the Salamanca Statement (UNESCO, 1994), and the Biwako Millenium Framework for Action (Economic and Social Commission for Asia and the Pacific, 2002). Nonetheless, as the Census data highlights, people with disabilities remain largely marginalized from participation in schooling and the labour market (Mitra & Sambamoorthi, 2006).
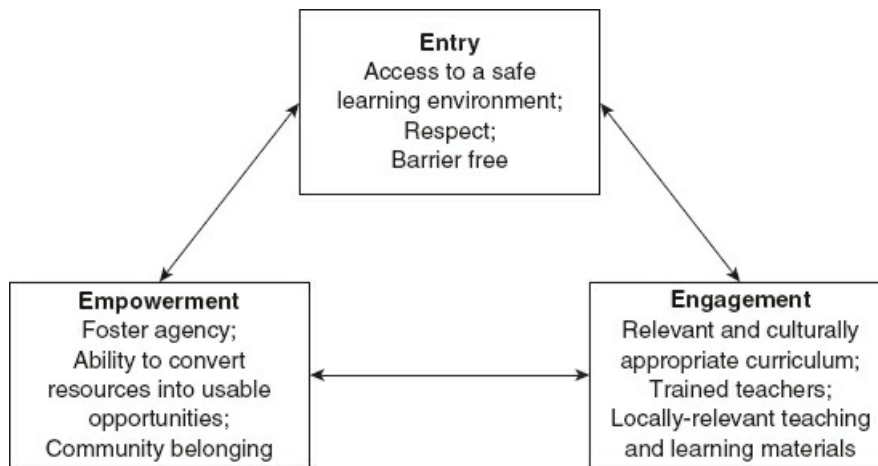
Figure 12.1   The 3E framework

This chapter will examine issues around education for children with disabilities by drawing on various research findings and by undertaking a critique of the policy discourse. In developing this argument, a 3E framework, Entry, Engagement and Empowerment (Singal, 2009), will be adopted. The rationale underpinning this framework is that education of children (irrespective of caste, disability and/or gender) needs to be considered and evaluated on these three interlinked dimensions (see Figure 12.1).

All children should be part of an education system and should have the opportunity to access and participate in it. They must find the experience of being in school engaging and joyful. Also, and rather importantly, schooling should have a positive impact on lives – it should be empowering, that is, it should foster agency so that individuals are able to use 'rights, capabilities, resources and opportunities to make strategic choices and decisions' (Grown, 2005, p. 14). The renowned Indian educationist Krishnamurti voices similar thoughts when he notes that '… school is a place of learning and not merely a place of accumulating knowledge … After all school is a place where one learns not only the knowledge required for daily life but also the art of living with all its complexities and subtleties.' (Krishnamurti, 1986, p. 50)

The three dimensions proposed in Figure 12.1 are somewhat in line with the principles of rights to education, rights in education and rights through education. However, relying solely on a rights discourse is problematic as discussed at length by Robeyns (2006), who amongst other issues raises concerns about these being seen as merely theoretical, largely legal (rather than moral) and consequently being exclusively government-focused. By using the 3E model, the aim is to move the discussion away from a purely rights perspective to a more critical analysis of the status of education of children with disabilities to issues central to effective development of educational systems.

ENTRY INTO THE EDUCATION SYSTEM

A significant focus of the government's efforts over the past few years has been on increasing the educational enrolment of children with disabilities. Analysis of various government reports and policy documents clearly suggests that international mandates and policy frameworks, such as the International Year of Disabled Persons, 1981; Decade of the Disabled by UN, 1983–1992; UNESCAP Decade of the Disabled Persons, 1993–2002; and the World Conference on Special Needs Education in Salamanca, 1994, provided a

significant impetus to efforts undertaken at the national level (Singal, 2006). Within Indian policy documents, a focus on the education of children with disabilities has featured at various times. For instance, it is mentioned in the National Policy on Education (Ministry of Human Resource Development [MHRD], 1992) and further developed in the *Sarva Shiksha Abhiyan* or the SSA (MHRD, 2000). Additionally, India has also adopted disability-specific legislations, such as the Rehabilitation Council of India Act, 1992, The Persons with Disabilities Act, (PWD Act), 1995 and the National Trust Act, 1999. In the majority of this documentation, particularly those published in the latter half of the 1990s, the focus has been on 'inclusive education', a concept I will return to later in the chapter.

Nonetheless, enrolment figures for children with disabilities, which are highly contested, suggest that less than 1% (Mukhopadhyay & Mani, 2002), not more than 4% (National Council of Educational Research and Training [NCERT], 2005), to 67.5% (MHRD, 2004) children with disabilities attend school.[3] NSSO (2003) figures indicate that only 45% of people with disabilities are literate, in comparison to 65% of the total population. School progression rates are rather dismal, as most children with disabilities rarely progress beyond the primary school level. It is suggested that only about 4% receive more than 8 years of schooling. Additionally, children with disabilities are five times more likely to be out of school than children belonging to scheduled castes or scheduled tribes (SC/ST) (World Bank, 2007). Even in states with good educational indicators and high overall enrolments, a high share of out of school children are those with disabilities. For instance, in Kerala, they form 27% of the total out of school population, while in Tamil Nadu the figure is estimated as 33%. This raises the question about what is amiss in a context where some commentators have argued has the most progressive disability policy frameworks.

Historically, the state has approached the education of children with disabilities through a twin track approach, as indicated in the National Policy of Education (MHRD, 1986). This approach is also evident in the PWD Act (Ministry of Law and Justice, 1996), which states that, 'it [the Act] endeavours to promote the integration of students with disabilities in the normal schools' (p. 12) and also promotes the 'establishment and availability of special schools across the nation' (p. 12) in both government and private sectors.

However, a report published by the Rehabilitation Council of India (RCI, 2001, p. 2) highlights a shift in government thinking, noting that:

> While special education began in India with the establishment of special schools, it was in 1960s–1970s that integrated education began to be advocated; however, after 1994, inclusive education is strongly recommended. (RCI, 2001, p 2)

While this report draws a distinction in the use of the terms integration and inclusive education, it does not define either of these concepts. Analysis of various government documents and policies suggests continued confusion regarding issues around the 'what' and 'how' of inclusive education.

However, a significant shift is evident in the on-going national programme, the *Sarva Shiksha Abhiyan* (SSA, 2007, p. 1), which notes that 'every child with special needs, irrespective of the kind, category and degree of disability, is provided meaningful and quality education. Hence, SSA has adopted a 'zero rejection policy'. The SSA document goes on to note that no child having special needs will be deprived of the right to education and must be taught in an environment suited to his/her learning needs, which might include special schools, Education Guarantee Scheme (EGS), Alternative and Innovative Education (AIE) or even home-based education.

While this multi-option delivery model could be immensely useful, the deterministic assumptions about children's ability to learn being made in majority of the governmental discourse needs to be challenged. For instance, MHRD (2003, p. 6) provides a list of disabilities that 'can be integrated in the normal school system'. These are, 'children with locomotor handicaps; mildly and moderately hearing impaired; partially sighted children; mentally handicapped educable group (IQ 50–70); children with multiple handicaps (blind and orthopaedic, hearing impaired and orthopaedic); educable mentally retarded and orthopaedic, visual impaired and mild hearing impaired'. This thinking is also evident when discussing issues of diagnosis and placement, where the role of the medical expert is central. The 10th Five-Year Plan (Planning Commission, 2002, p. 31) notes that a 'three member assessment team comprising of a psychologist, a doctor and a special educator' will determine whether the child should be directly enrolled into a 'normal' school. Noticeable here is the absence of the opinions of the child, her/his parents and mainstream teachers. This document goes on to note that it, 'encourages the appointment of special teachers for mildly handicapped children and provide special in-service training to teachers in schools for the disabled children'. In effect it removes any responsibility from mainstream teachers with regard to children with disabilities.

While policy documents do prioritize the need for more children to be educated in the mainstream, recent trends indicate a steady growth in the number of special schools in India (RCI, 2000). Parasuram (2006), drawing on various references, suggests that special schools are still the more popular option for the education of all children with disabilities. Even though getting exact figures are difficult, it is suggested that there are approximately 2,500 special schools, capable of accommodating about 100,000 children annually (RCI, 2000). However, this number seems an underestimation given the range and types of special schools in many urban cities and semi-rural settings. While significant amounts of monetary investment are being made in the special education sector, it has remained invisible in academic discourse and there have been very little efforts to evaluate its functioning and contribution.

ENGAGEMENT IN THE PROCESS OF EDUCATION

Another important concern in this debate is the quality of education that children receive. SSA (2007) notes that it aims to achieve inclusive education and highlights eight priority areas of intervention, namely, 'survey for identification of CWSN; assessment of CWSN; providing assistive devices; networking with NGOs/Government schemes; barrier free access; training of teachers on IE; appointment of resource teachers; curricula adaptation/textbooks/appropriate TLM'.[4] It is clearly evident that the majority of the areas listed are focused on issues of access, and only the last three are associated with classroom based processes, which are in essence vital in determining the quality of the educational experience.

The lack of teacher preparation and training in responding to the needs of children with disabilities has also been noted by the National Council for Teacher Education (2010, p. 12), which states that there is 'inadequate preparation of teachers to address diversity in the classroom'. Research evidence also highlights many challenges faced by teachers in responding to diverse needs in mainstream classrooms. For example, mainstream teachers working in rural and urban Dewas noted their lack of training to respond to the perceived needs of children with disabilities and the challenge of working with large class sizes of approximately 60 children with little resources (Singal, Jeffery, Jain, & Sood, 2011). Interestingly, their

accounts resonated with those of fellow teachers working in more urban and better resourced private schools in Delhi, Kolkata and Mumbai (Das and Kattumuri, 2010; Singal, 2008). In their research with teachers in Mumbai on their beliefs and attitudes to children who stutter, Pachigar, Stansfield and Goldbart (2011) concluded that not only did the teachers feel that they faced many challenges, but also, due to the lack of any training opportunities they relied on personal knowledge, which restricted their abilities to meet different needs. Similar inferences were drawn from the classroom based research undertaken by Singal (2008) who discusses the notion of 'teachability' as being central to how teachers make assumptions about children they think they can teach, given their own training and personal skills, rather than taking account of how children learn.

Similar themes are highlighted in the schooling accounts provided by young people with disabilities. In their research, Singal et al. (2011) noted high levels of frustrations amongst those who had attended mainstream schools, as they reflected upon the lack of adequate resources (e.g., Braille) to support learning, a restricted and irrelevant school curriculum, their teachers' inability to engage them and rather notably, most of them pointed out the lack of friendships with non-disabled peers. Their narratives reflected that these young people have been resilient survivors of the education system, rather than the system fostering their success. In contrast, when describing their experiences in special schools the young people talked about opportunities available to them to learn basic skills, develop close friendships and very significantly, the presence of teachers who acted as mentors and in many cases, were strong role models (Singal et al., 2011).

Interestingly, some of these young people had attended both special schools and mainstream settings and hence drew contrasts between the two settings. During one such reflection, a young man noted:

> the difference is that in the special school everyone was like us … everything was taught according to our levels … there was no problem of blackboards and so on … there were teachers … they were all in touch with us … they knew Braille also … they used to touch and hold with their hands and explain … but in a normal school what happens is that the teacher explains (only) on the board …

However, he went on to acknowledge that:

> in the special school one can only get the knowledge as much as would be provided by the teachers … and in a general school along with studies, outside knowledge, outside environment, living style, meeting different kinds of boys and having different experiences … then one can deal with the difficulties that one faces after coming outside very easily … how to talk to whom, how to do what.

Within the Indian context, there continues to be a significant lack of research examining teaching and learning processes in the classroom and debates continue to draw heavily on personal narratives, inferences drawn from Northern literature and oversimplified generalizations.

Table 12.1 Perceived purpose of educating those with disabilities

Stakeholder	Purpose of education
Government	Compensatory, vocational and social skills
Teachers	Sympathy, role models, how to live in society
Parents	Employment, marriage (for women)
Young people	Increased independence, greater self-confidence, dignity, respect from others, earn a living

EMPOWERMENT IN AND THROUGH EDUCATION

In outlining the aims of education, an NCERT (2006, p. 23) report notes that education should be informed by the following goals: 'Creation of vital links between experiences at home and community, Self knowledge, Creativity and exploration'. However, these aspirations are in marked contrast to those noted by the (Draft) National Policy on Special Education which stated that 'In developing curricula for children with special needs stress shall be laid on the development of *compensatory, vocational, and social skills*' (RCI, 2001, emphasis added). Such a statement begs important questions about compensation for what? Whereas the focus on vocational skills gets translated into carpentry, candle making and other low skill endeavours, with little economic potential.

In Singal et al. (2011), different stakeholders noted significant variations in the perceived purpose of educating children with disabilities (as outlined in Table 12.1).

Views similar to those seen at the policy level were expressed by teachers, who noted that schooling for children with disabilities is mainly to help them learn how to live in a society and learn how to cope with other people, or indeed as a School Head reflected, 'social integration is the major job and once that is done that's only needed. You cannot make them all doctors or engineers. We must be realistic … this is inclusive education for me'. Such narrow perceptions about the purpose of schooling stand in contrast to the views held by young people and their families.

While assumptions exist that people living in poverty do not value education, Krishna's (2004) research with people living in poor communities suggests differently. He noted that community members unequivocally identified four stages of progress, that is, the priorities of households as they begin to exit poverty were as follows: buying food to eat, sending children to school, possessing clothes to wear outside the house and returning debt in regular instalments. Thus, educating their children was an important concern after basic sustenance. Not only do poor families value education for their child, but more recent research in India (see Singal et al., 2011) also highlighted the priority given to schooling by parents of children with disabilities. When parents were asked what motivated them to send their child to school, they noted '… [if her daughter with disabilities is educated then] … she can do some work … she will have more brain, she can also get a job somewhere. Otherwise she will have to do manual labour like us'. '… if he studies then some benefit will come … he can get a loan … can get a job'. In case of young women, mothers also associated education with increased marriage prospects, 'She does not even have eyes – so who will take her? But if she studies and gets a job then she will have value and she can marry. Otherwise who will bother?' It is interesting to note that parents who expressed these opinions were themselves illiterate and in most cases their child with disabilities had more (or equal) years of schooling than their non-disabled children. While this might raise issues of care, where schooling is simply regarded as a way of off-setting indirect costs in terms of preventing lost employment opportunities for other family members, the immense faith being placed in education cannot be overlooked. Similar findings were reported in a World Bank-funded village survey conducted in Uttar Pradesh and Tamil Nadu, which noted that parents of children with disabilities were equally willing to make the investment in private education despite the factor that labour market outcomes for those with disabilities are poor (World Bank, 2007, section 3.1).

While teachers regarded benefits of education (especially mainstream) in terms of normalization, and

parents focused on employment, the accounts of the young people with disabilities who had progressed through the school system were much richer in terms of its perceived benefits. Narratives gathered by Singal et al. (2011) provide evidence of the impact of schooling on positive development of the self, notions of respect and dignity, development of basic skills such as reading newspapers, accessing information on public transport and heightened sense of independence. As a young woman noted, 'Education can make a person independent and stay in society with some amount of dignity'. Interestingly, even though schooling was seen as being of value in gaining work, findings highlighted that there was little relationship between years of schooling and employment.

A WAY FORWARD

By undertaking a critical analysis of developments in the education of children with disabilities in India through a 3E framework, it is evident that while important developments have occurred over the past few years, many significant challenges remain unaddressed. Efforts over the past few decades have been shaped primarily by a focus on issues of school access, which are not very different from the concerns around universal access and progression for non-disabled children. Nonetheless, enrolment of children with disabilities continues to be the worst-off in comparison to all other social groupings, and their meaningful engagement within the school context continues to be of significant concern.

While the SSA propagates a multi-option system of educational delivery, some fundamental issues remain in relation to how differences are understood and responded to in the Indian context. This is reflected in how certain groupings of students are seen as more suitable for mainstream and the manner in which rigid professional boundaries are reinforced in terms of assessment and teaching, all of which have been discussed previously. Additionally, none of the multi-options, such as AIE, EGS, special schools or home-based schooling flagged in SSA plans have been examined in relation to the participation of children with disabilities. Therefore, it is unclear how these arrangements are being used and/or their effectiveness in relation to the education of children with disabilities.

Over the past few years, the focus in India has remained on inclusive education, a concept which remains unclear and has been largely shaped by international developments. An eminent Indian scholar, writing in a key educational text, soon after the Salamanca Conference, noted the following:

> … the Warnock Report (DES, 1978), has broadened the notion of special education by introducing the concept of special educational needs, instead of continued categorisation and labelling. This has further evolved into a broader and natural concept of inclusive schooling in recent years. In developed countries, which historically have parallel general and special schools, are moving from mainstreaming and integration towards evolving inclusive schools. However for developing systems inclusive schooling is not an alternative but is inevitable. (Jangira, 1997, p. 496)

It is remarkable to observe the simple manner in which the Warnock Report, published in Britain, was understood and adopted into Indian thinking. The very notion of inclusive education as put forth by Jangira was anchored in the field of special education and was located in a Northern context. It did not address issues such as where the *inevitability* towards inclusive education arose from? Or indeed what it meant and how this would be achieved? Jangira merely referenced an English document unfamiliar to the majority in India.

Kalyanpur (2007, p. 5), in her study of inclusive practices in India, concluded that the rhetoric around

inclusive education is primarily the result of Western imperatives and 'a need to be "politically correct" by taking on current trends in the West without a real or common understanding of their meaning, resulting in dilution of service quality' (p. 5), and 'remains scarcely reflected in policy or programmatic realities' (Kalyanpur, 2008, p. 61). Similarly, Das and Kattumuri (2010, p. 3), reflecting on their findings of a study investigating experiences of children with disabilities in private inclusive schools in Mumbai, noted that the term remains 'in its infancy'.

Nonetheless, 'inclusive education' continues to be propagated as the solution to a range of problems in education by international development agencies and/or by educational consultants parachuted into many Southern countries who continue to propagate 'a set of globally-generated, validated and disseminated assumptions about the educational needs of students' (Le Fanu, 2011). Armstrong, Armstrong and Spandagou (2009, p. 12) acknowledge that 'the growth of "inclusive education" in the developing world … in part reflects the export of first-world thinking to countries which reinforces dependency'.

Of even greater concern is the fact that most of these discourses remain silent about the emerging tensions within Northern contexts. For instance, even in Britain, a country rife with strong academic and pedagogical support for inclusive education, a new Conservative government when elected to power (in 2011) expressed the following views in its first official document on SEN, 'We will *remove the bias towards inclusion* … we will also prevent the unnecessary closure of special schools by giving parents and community groups the power to take them over' (Department for Education [DfE], 2011, p. 5, emphasis added).

It is worth noting that the issue is not simply about propagating the possibility of inclusive education in resource-poor countries, rather there remains an argument for questioning if the current (political and moral) association with inclusive education does prevent people from examining alternatives to a new reality and if it silences people from asking the central questions of *inclusion into what*? and *inclusion for what purposes*? By posing the former question, there is greater likelihood of acknowledging the developing nature and concerns faced by the mainstream education systems in developing economies. Here it is important to remember that not only do these countries have systems with low overall educational indicators, wherein concerns are about teacher attendance not qualification; the focus is on basic teaching skills not on developing innovative pedagogical approaches; and concerns are about the scarcity of accessible and clean lavatories, and not high-tech laboratories. Additionally, these countries are straddled with the baggage of colonial legacy and pressures to respond to a globalized era. Unarguably, the approaches adopted to respond to concerns of children with disabilities must also acknowledge these disjunctures.

For instance, undertaking extensive field research in parts of India and meeting many young people with disabilities, who had grown up in communities with little resources, and in families with minimum parental education, but had attended both special and mainstream schools highlighted the significant value these people placed on the role of special schools and teachers in their lives (Singal et al., 2011). These young people narrated accounts (as previously noted in this chapter) of how they had learnt essential basic life skills (such as self-care, etc.), developed their literacy and numeracy skills through appropriate equipment (such as Braille), provided strong adult role models (such as blind teachers), developed awareness of their rights and acted as safe zones of learning and friendships. It was clear that in the early years of their schooling, these young people had greatly valued the role of special schools. This is particularly important given the fact that the majority of these young people were first-generation learners, and came from families where their parents

had little or no education. However the young people also stressed that it was vital to make transitions from these settings to mainstream schools in later years in order to broaden individual capabilities and opportunities. Being poor is a reality for many people with disabilities in developing contexts (Department for International Development [DfID], 2000) and lack of state interventions makes the situation even more complex. Thus, the role played by educational institutions is very significant.

This raises issues not simply about fixed structures, but also the fluidity of spaces, that is, can 'value free' transition points be developed across educational settings which do not stigmatize learners? While there is no argument against the fact that all groups of children should be provided access to a learning environment which is engaging and empowering, it is still not clear how this is best achieved. Slee (2001) notes that 'the question is essentially about choice and outcomes' (p. 116). He goes onto note that through constant questioning there is a need to 'create the possibility for a range of educational settlements that do not reinforce the powerlessness of minority groups through and in schooling' (p. 116). In concluding his article, Slee places a challenge that 'our thinking about inclusion and exclusion [must move] beyond the theoretical strait-jacket of SENs'. He argues that 'discussion of inclusive schooling must therefore reconnect itself to the educational policy environment … and to an understanding of the specificity of schools and their communities'.

In the Indian context, like many other developing economies, this would mean an acknowledgment of the state of the general education system, wherein Kingdon and Muzammil (2009, p. 126) argue that 'there has been encouraging progress over the last 15 years in terms of increased school enrolment rates, less progress has been made on broader improvements in the schooling system such as the promotion of education in general or improving equity and efficiency in the system', thus simply stating that all children must participate in this fractured system would not necessarily be a socially just approach.

Additionally, the strong association between poverty and disability in these contexts cannot be mitigated. Various epidemiological (and other) studies highlight the high incidence of preventable diseases causing impairments. For example, Pinto and Sahu (2001) note that certain types of disabilities, such as polio and blindness are at least four times more likely among those below the poverty line than those above it. More recent micro-level studies in the field have further charted this relationship. Hulme (2003) in his research mapping the decline into poverty of a two-member household in Bangladesh, and Krishna (2004) in his study in India identified that illnesses, accidents and health-related expenditures are the main reasons for households being pushed into poverty. Thus, by focusing on issues faced by people with disability, not only is one amplifying the socio-historical marginalization of this group, but also engaging with the contemporary realities of Indian poverty. It is also acknowledging the need for proper health care and the use of aids and appliances which make educational access and participation feasible. Furthermore, many disabled people living in poverty do not have wide-ranging social networks and hence the role of school in delivering some basic life skills is greatly valued and needed by many people with disabilities.

Research in India has, over the past few years, highlighted the growing confusion and dissatisfaction amongst teachers, parents and young people with disabilities in relation to the education system (for example, Pachigar et al., 2011; Parasuram, 2006; Singal et al., 2011). However, there are also some powerful enablers within the setting which must be recognized and have fostered the growth of the education system, have enabled the framing of powerful legislations, and the vital role played by families and communities. However, it is only when we truly begun to develop a deeper appreciation of the context and make efforts to understand

individual and collective stories and that we can open up the moral and political space for effective educational reform efforts, rather than putting in place fragmented solutions.

NOTES

1 Directive principles are not enforceable by any court, but are fundamental for the governance of the country. These are mere instructions to the government, while fundamental rights cannot be abridged or overlooked by the government.

2 The Census of India states that:

A person aged 7 years and above who can both read and write with understanding in any language has been taken as literate. It is not necessary for a person to have received any formal education or passed any minimum educational standard for being treated as literate. People who were blind and could read in Braille are treated to be literates. (http://censusindia.gov.in/Metadata/Metada.htm)

3 See Singal (2006) for an in-depth critique of educational statistics.

4 Children with Special Needs (CWSN) in SSA is regarded as including: Visually impaired, Hearing impaired, Mentally retarded, Orthopedically handicapped, Learning disability, Multiple disabilities, Cerebral palsy, Speech impaired and Others.

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13

Inclusive Schooling as an Apprenticeship in Democracy?

Roger Slee

INTRODUCTION

In *Meditations of a Broomstick*, the celebrated scientist Baron Rothschild (Rothschild, 1977) muses on 'The promises and panaceas that gleam like false teeth in the party manifestoes'. When working in government, I experienced incorporation into the sometimes disingenuous chicanery that intertwines inclusive educational policy and practice across education jurisdictions (Mitchell, 2005; Slee, 2003). What is on offer as inclusive education is all too often little more than a set of adjustments applied to ideas and practices to give the gleam of inclusion. Reading the *Report on the Review of Disability Standards for Education 2005* (Department of Education, Employment and Workplace Relations, 2012), the Victorian Auditor-General's Report (2012) *Programs for Students with Special Learning Needs* and the most recent report from the Victorian Equal Opportunities and Human Rights Commission entitled *Held Back: The experiences of students with disabilities in Victorian schools* (Victorian Equal Opportunities and Human Rights Commission, 2012), it seems that despite signs of progress of a social movement and educational idea there remain fundamental blockages to the achievement of democratic or inclusive education.

In this brief discussion, I will contend that inclusive schooling is a precondition of democratic education (Bernstein, 1996; Knight, 2000), that it is theoretically-contested and as a consequence passed off in many guises. Ultimately, inclusive education is an inherently troubled and troubling educational and social project. Notwithstanding this stipulation of inclusive education as a prerequisite for democratic schooling, it saddens me to report that much of what is offered as inclusive education is less than democratic, less than inclusive. Although our education and political rhetoric is replete with epithets of *inclusion, engagement* and *community*, competitive individualism is the ethical foundation for schooling, and students, having been reduced to the bearers of results in a performance-driven education policy environment, are increasingly being calibrated and sorted, as schools, teachers and parents position themselves in the education marketplace (Ball, 2008; Bauman, 2009; Slee, 2010).

This chapter comprises three sections. *Part one: Temporary endgames*, takes up the challenge of means and ends in the public policy arena to suggest that ends are too seldom explicated allowing the allure of the immediate, of the political or 'educational' fix to attenuate schooling as a reconstructive social project in a troubled world. *Part two: The trouble with inclusion* will examine the epistemological tensions, exemplified and amplified within a handbook such as this, that simultaneously advance and undermine the progress of disability rights in education. This section also examines the way in which inclusion has become instrumental in the policy processes of exclusion in education. *Part three: Putting the public in policy – promises with teeth*, proposes an agenda for the pursuit of democratic education within which inclusion and reciprocity are writ large (Touraine, 2000, Bernstein, 1996).

PART ONE: TEMPORARY ENDGAMES

> When Maggie X died, the [aged care] home decided that her savings of 450 pounds was insufficient to pay for the funeral and asked the council to pay. It refused and the owner of the home appealed to the Local Ombudsman. In his comments to the latter, the council Chief Executive wrote that 'without wishing to appear insensitive, one could argue that from a commercial viewpoint residents of a home are its income producing raw material. Ergo, from a purely commercial view, deceased residents, may then may be regarded as being the waste produced by their business'. Since, he continued, the resident's body was 'controlled waste likely to cause pollution of the environment or harm to human health' the home had, under the definition of controlled waste as defined by the Environmental Protection Act, 'a specific duty' to dispose of the remains. Disposal, under the definitions of the Act, was 'a business cost'. (Doig and Wilson, 1999)

Readers' sensibilities will no doubt be offended by the crass reductionism of the Chief Executive who while wishing not to appear insensitive still found it possible to identify deceased elderly residents as *business waste* for the purpose of financial reporting and cost recovery. Needless to say, technocratic reductionism is not confined to aged care, nor indeed to the United Kingdom. Bauman (2004) observes the way in which societies create surplus populations who in turn present a threat to their good order. The process of estrangement is described as the product of a set of impersonal forces thereby removing the sensibility of care:

> … the production of human waste has all the markings of an impersonal, purely technical issue. The principal actors in the drama are 'terms of trade', 'market demands', 'competitive pressures', 'productivity' or 'efficiency' requirements, all covering up or explicitly denying any connection with names and addresses. (Bauman, 2004, p. 40)

It is my contention that the terminologies and practices of special education have been enlisted to serve a similar process of categorisation and estrangement in education.

Apple (Apple, 2001) meticulously tracks the way that a coalition of conservative forces in the US, having declared 'open season on education' has effectively reduced schooling, teaching and learning to a 'business to be treated no differently than any other business'. Mobilized within an international trope of choice and standards (Apple, 2001; Gewirtz, Ball and Bowe, 1995; Gillborn and Youdell, 2000; Lauder and Hughes, 1999; Tomlinson, 1997), the distribution of educational opportunity is played out according to the logic and inequity of a Hayekian marketplace. In Australia, as elsewhere, the grammar of the marketplace insinuated itself and created the discursive terrain for education policy decision-making. Simon Marginson observes that:

> Under the sign of the New Right, and within the space created by its initial political breakthrough in the mid-1970s, market-liberalism constituted a new political rationality, supported by a new language of markets, competition and enterprise, in which the objective of government was not so much the welfare of its citizens per se as the formation of a competitive economy within a Hayekian order … this new political rationality was associated with new kinds of programmes that, over time, grew out of or displaced those of the welfare state era. These new programmes operated with new technologies of government, new strategies, techniques and procedures for securing governmental objectives. The conception of citizenship was changing, from the citizen of the welfare state, bound by solidarity and mutual interdependence, to a market-active and entrepreneurial citizen whose objective was personal fulfillment. (Marginson, 1997)

For education, they were:

> … conceived as competitive system-markets, although no less subject to government for that. The norms of public service were replaced by those of competition, efficiency and customer demand. Relations between the state and educational professionals were reworked, so that accountability was rerouted through client relations. Here the individualization of costs signified more than a decline in the benefit-tax ratio. It signified a change in the subject-object of education, in the governmental construction of students themselves. Market liberal government was characterized by the privatization of opportunity and risk management. (Marginson, 1997, pp. 64–65)

Addressing the Fifteenth Conference of Commonwealth Education Ministers in Edinburgh (October, 2003), the eminent development economist Amartya Sen, paradoxically for some, drew inspiration from Adam Smith to highlight risk and folly in trusting education to the marketplace. It seems after all that Smith was not so sanguine about a less than benign invisible hand to conduct public education:

> … why it would be wrong to leave this to the market: for a very small expense the public can facilitate, can encourage, and can even impose upon almost the whole body of people, the necessity of acquiring those most essential parts of education. (Smith, 1976)

For Sen, the marketization of schooling exacerbates material inequalities, and in doing so represents a key threat to the communitarian aspirations espoused by neo-liberal governments. In the UK and the US, there are numerous accounts of how the competitive schooling marketplace has instigated a white flight from inner urban – not yet gentrified – community schools (Gewirtz, Ball and Bowe, 1995). The comprehensive school project has lapsed through the reassertion of traditional grammar schools and the proliferation of Charter schools. Public schooling having 'lost its civic imagination' (Rose, 1995) is tiered and residualized. Gillborn and Youdell (2000, p. 133) present compelling case studies of schools in Britain and the way that they allocate grades in the 'A – to – C economy' '… to further target resources on a limited numbers of pupils in one last push to maximize their scores in the nationally published school performance league tables'. The role of teacher as gatekeeper, through the regressive impact of the league tables and the narrow adjudication of standards, has intensified. Enlisting the powerful metaphor of educational triage, the application of grade management in the schools' strategies to scale the league table becomes abundantly clear:

> … at a deeper level the strategies share similar characteristics and can be understood as a form of educational triage – a means by which scarce resources are rationed, leaving some to perish while others survive.… like medics in a crisis, teachers are increasingly seeking to identify those individuals who will benefit most from access to limited resources. In a medical emergency triage is the name used to describe attempts to direct attention to those people who might survive (with help), leaving other (less hopeful) cases to die. In school, educational triage is acting systematically to neglect certain pupils while directing additional resources to those deemed most likely to benefit (in terms of the externally judged standards). These strategies seek to maximize the effectiveness of scarce resources but their effect, in practice, is to privilege particular groups of pupils marked especially by social class and 'race'. (Gillborn & Youdell, 2000, pp. 133–134)

The marketization of schooling has generated perverse and deleterious effects. Eschewing established findings from the corpus of educational assessment and evaluation research (Black, 1998, Gipps and Murphy, 1994), education jurisdictions have alighted on high stakes standardized testing (Sacks, 1999) to provide a simple set of ratings against which to argue raising standards (Meier, Sizer, Nathan and Thernstrom, 2000). Combined with the drive for 'national curriculum' based variously on Eurocentric cultural artefacts that effectively excludes the cultures of the increasingly diverse student populations of these countries and schedules of performance standards against which to inspect teachers and schools, education jurisdictions construct competitive tables to demonstrate the raising of standards through competition and accountability. The reality is that students are privileged or marginalized according to class, geographic location, ethnicity, and perceived notions of 'ability'. In other words, the architecture of schooling becomes more distinctly tiered – sponsored schools for achievers and residualized schools for the less deserving (Gillborn and Youdell, 2000).

My argument is not with standards as such. The critique is advanced against reductive public discourse, the Death Sentences (Watson, 2003) that conflate equity with 'back to the basics' (Lingard, 1998), that substitute high stakes monolingual minimum standards testing for richer assessment and evaluation schedules (Luke,

2003) and pretend that inclusive education can be pursued without tackling institutional reconstruction and economic redistribution in deeply stratified societies (Kozol, 1991; Anyon, 2005). Bob Chase, President of the National Education Association, is unequivocal:

> … we must pursue higher academic standards with our eyes wide open. The objective of the standards movement – to successfully educate all children, rich and poor, to the same high standards – is truly revolutionary. We must match our revolutionary intentions with commensurably revolutionary intententerventions to ensure that all students, especially underprivileged students, succeed. (Chase, cited in Meier, Sizer, Nathan and Thernstrom, 2000, p. 41)

Schooling is not the benign allotment of prizes according to merit as conservative philosophers like (Nozick, 1974) would have it:

> Education is not … a mirror of social or cultural inequalities. That is all too still an image. Education systems are busy institutions. They are vibrantly involved in the production of social hierarchies. They select and exclude their own clients; they expand credentialed labour markets; they produce and disseminate particular kinds of knowledge to particular users. (Connell, 1993)

Schools include some and they exclude others. All this is pursued within rhetorical flourishes of 'building social capital', 'excellence for all', 'raising standards' and perhaps most cruelly through the increasingly popular public policy descriptor, 'inclusive schooling'.

 Elsewhere I have observed that under these conditions of *performativity* (Ball, 1998), schools become more risk averse, more selective, more exclusive. Simply put, they are more choosey about who's in and who's out (Slee, 1998). Apprehensive schooling has replaced comprehensive schooling. Ultimately there has been a confusion of means and ends, a confusion of aims and strategies. More particularly, the political and educational rhetoric is little more than distractive noise at odds with the divisive reality of schooling. A survey of inclusive education policy documents across education authorities reveals a sheer screen that barely conceals traditional approaches to traditional segregated special education. For government (sic. Treasury), inclusive education becomes a complex set of algorithms for allocating finite *additional* resources to disabled children. It is worth noting that the provision of resources essential for the education of disabled children are construed as additional, contingent, or provisional; they are an afterthought. Consequently, in some quarters, inclusive education paradoxically has become a rhetorical exercise to revise the categories of special need, to call in the actuaries to set the levels of distribution according to *severity of disability*, stave off the need to radically alter the structure of schooling and parade our liberal credentials.

 Perhaps it is time to insert two caveats. Though I am strident in my critique of the dividing practices (Foucault, 1979) embraced by public policy and manifest in schools I am also deeply respectful of hopeful exceptions where communities have engaged in the struggle to interrogate new social ends and set out on divergent means for securing them (Carrington and Robinson, 2004). The second caveat is an acknowledgement that the operation of education policy decision-making is far messier than the preceding discussion suggests (Ball, 1994). Education is an intensely political activity. The politics relate to competing views of the good society and how to secure it through schooling. Conflict also speaks to struggles for authority in bureaucracy driven by ideology, personality and ambition.

PART TWO: THE TROUBLE WITH INCLUSION

Language simultaneously serves to reveal and conceal meaning. Inclusive education is in Watson's (2003) terms approaching the status of a *death sentence*. In other words, the couplet has been used so widely and carries such different meanings for those who utter it, it is accepted as self-evident. Notwithstanding its insurrectionary heritage, inclusive education has been appropriated and is most frequently a default vocabulary (Slee, 1996) to connote the fitting of disabled kids into regular schools or classrooms. It has become increasingly possible for people to gather to discuss inclusive education only to find that they are describing very different worlds. Special education conferences frequently select inclusion as their organizing theme. Special educational textbooks, or the big glossies as Ellen Brantlinger refers to them, have acquired an additional chapter on inclusion. There is a need to take issue with this state of affairs and systematically dissect it. The following paragraphs are pointers in this direction.

Mindful of our discussion of means and ends we could commence with an interrogation of whether inclusive education is a programme of sponsored immigration where we take an excluded population from segregated settings and place them in regular schools. Within such a proposition resides a range of subsidiary issues. The binary of special and regular privileges the latter as an acceptable set of institutional arrangements. There is ample evidence to suggest the deeply irregular practices of schooling. Schools are formed through a range of institutional practices; pedagogic, curricular and organizational, that continue to erect barriers to the participation of students on the basis of the diverse characteristics of the student population. Such institutional arrangements will continue to disable students wherever they might be.

The *regular school/special school [regular student/special student]* binaries deflect from the epistemic weight of normality and abnormality. Epistemology distributes status and power unevenly:

All societies produce strangers; but each kind of society produces its own kind of strangers, and produces them in its own inimitable way.… These strangers are by definition an anomaly to be rectified. (Bauman, 1997)

Inclusive education is not about relocation of people in the mainstream. Inclusive education presses us to consider the ontology of special and regular; presses us to resist such a bifurcation as redundant in democratic education.

I choose the term 'assisted immigration' as it was a common way of describing the sponsorship of immigrants from Europe to Australia after World War II. People of carefully selected national origins (sic. not 'coloured' for Australia had a White Australia Immigration Policy policed through a language dictation test) were encouraged to come to Australia to satisfy the burgeoning requirements of the labour market. The passage was heavily subsidized. In return for the opportunities on offer, complete assimilation was expected. The analogy holds for many in education who conceptualize inclusive education as a normalizing project. Liberals will of course *celebrate* difference and diversity on occasions, but the objective remains conservative.

Particularly troubling is the fact that while the immigration is being conditionally encouraged for some, others are being shown the educational backdoor as the surge in special educational needs categories advances generating a proliferation of off-site centres for the disturbed and disturbing children. The uneven assignment of children to special educational needs services is seldom confronted substantively. Sally Tomlinson stepped forward to suggest that special education was a racialized social construct (Tomlinson, 1981). At issue then is the way in which education jurisdictions around the world have appropriated a once rebellious call for inclusive education to describe the normalizing function of schooling. More astonishing is their failure to

acknowledge the deeply exclusionary practices endorsed through the standards and choice agenda.

Accordingly we might suggest that for schooling to be inclusive there is a reconstructive project ahead of us. Placing kids with *appropriate support* in schools and classrooms that retain all the cultural hallmarks of exclusion ought not to be described as inclusive education. Just as segregation is unacceptable to communities that describe themselves as democratic, assimilation is reprehensible and speaks not to an educated citizenry. Inclusive education as I am construing it here is not simply a matter of matching children with support to legitimize their seat at a desk. However, it is about location and it is about the resources to enable all children to learn. But these are contingencies for the larger cultural work of building communities that embrace and represent.

Since it continues to trouble folk, we need to confront ideology (Brantlinger, 1997, 2004; Kauffman and Hallahan, 1995; Kavale and Mostert, 2004). Zizek (1994, p. 17) captures the essence of the debate observing that ideology 'is at work in everything we experience as reality'. In summary the charge is that inclusive education has forfeited its claim to validity as scientific research activity given its ideological transparency. Dismissing this charge is somewhat repetitious. Troyna dealt effectively with critiques from Hammersley, Gomm and White along similar lines when he rightfully declared the partisan nature of his anti-racist research project (Troyna, 1994). First, science, a branch of the knowledge tree is socially-constructed and ideologically-charged. Objectivity is a fallacious claim. The crux of the debate more correctly should centre on questions of rigor. There should be a reflexivity that puts all assumptions on the table for interrogation and analysis.

Inclusive education as a claim against exclusionary political arrangements through education must play host to research that identifies and analyses the structure and operation of exclusion. It is therefore a very broad research programme that sponsors the research of diverse communities of researchers as they work across a number of research issues through a range of methodologies. Identity politics research is at the heart of this project. This will inform the methodological choices as we design the evaluation of curriculum, pedagogy and school organization.

Underlying this discussion is a call for epistemic transparency – who are we, what do we stand for, for whom do we claim to speak? Special education cannot pass itself off as an unproblematic ally or as a branch member in the inclusive education fraternity. Attention to disability studies is a precondition for a more productive exchange (Allan, 2003). The popularity of inclusive education as a rhetorical device for governments that don't acknowledge their role in the pervasiveness of exclusion is also problematic. As Said observed, travelling theories (such as inclusive education) borne of a political context and purpose to change unequal power relations are domesticated and tamed as they become popular and frequently cited catechisms (Said, 2000).

PART THREE: PUTTING THE PUBLIC IN POLICY – PROMISES WITH TEETH

Democracy is hard to love. Perhaps some people enjoy making speeches, or confronting those with whom they disagree, or standing up to privileged and powerful people with claims and demands. Activities like these, however, make many people anxious. Perhaps some people like to go to meetings after a hard day's work and try to focus discussion on the issue, to haggle over the language of a resolution, or gather signatures for a petition, or call long lists of strangers on the telephone. But most people would rather watch television, read poetry or make love. To be sure democratic politics has some joys … Defeat, co-optation, or ambiguous results are more common experiences than political victory, however. Citizens must often put in a great deal of time to gain a small reform. Because in a democracy nearly everything is revisable,

and because unpredictable public opinion of counts for something, uncertainty shadows democracy. (Young, 2000)

The central argument that inclusive education is an important but fragile educational project in this chapter proceeds from a number of propositions. First is a view that inclusive education is not an end in itself. It ought to be conceptualized and pursued tactically as a means for achieving an education in and for democratic citizenship. Inclusive schooling is a requirement of this apprenticeship in democracy (Pearl, 1999). This is not new, others such as Bernstein *announced* the requirement for a democratic education and the conditions necessary for it (Bernstein, 1996). For Bernstein (1996) inclusiveness was not absorption, it connoted authentic reciprocity. Through his provocatively entitled *Can we live together?* Alain Touraine concluded that this could only be achieved 'through a school that democratizes' (2000, p. 283). 'In a world of intense cultural exchanges', he argues, 'there can be no democracy unless we recognise the diversity of cultures and relations of domination that exist between them' (Touraine, 2000).

The second under-girding proposition is that just as inclusive schooling is a precondition for democratic education; it is simultaneously deployed counter democratically to maintain institutional equilibrium. Inclusive education is appropriated to maintain unequal power relations and dis enfranchise vulnerable people. As Young observes this invites vigilance to ensure greater possibilities for participation in decision-making:

Our democratic policy discussions do not occur under conditions free of coercion and threat, and free of the distorting influence of unequal power and control over resources. In actually existing democracies there tends to be a reinforcing circle between social and economic inequality and political inequality that enables the powerful to use formally democratic processes to perpetuate injustice and preserve privilege. One means of breaking this circle, I argue, is to widen democratic inclusion. (Young, 2000)

A *deliberative democracy* (Gutmann and Thompson, 2004) capable of confronting complex social issues demands extensive and inclusive participation in decision-making. The third proposition is perhaps the most difficult for public policy making in education. The truth is that public policy making is not so public. Policy decision-making is a professional enterprise that structures the terms and conditions of representation. The professional is privileged over community. Existing patterns of control endure in the absence of deliberate interventions.

Notwithstanding attempts to engage and mobilize greater levels of participation and to invite deliberation over education for disabled students, there remains a tendency for this to collapse in the wake of government and industrial interplay (Slee, 2003). Dissent is gathered and circumscribed; often ground down through the rituals of representation. How do we safeguard the public in policy? In particular, how do we honour disabled people through the processes of decision-making that will deliver an enabling schooling? Let me attempt to suggest some elements for an agenda for change.

First is a call for an epistemological shove. Here I refer to the need for us to move our gaze from describing individual *defective* pathologies to understanding the more pervasive and complex pathology of schooling. The discussion of the marketization of education and its ineluctable drive to differentiate students as projections of measurable outcome is central to the recognition of exclusionary practices. How do education practices; pedagogy, curriculum, assessment, banding and coding, placement and enrolment policy, and classroom organization, affect the gravitational push and pull? In other words, does the grammar of schooling bring students to the centre of institutional life or launch them in marginal trajectories.

It seems then that inclusive schooling is not the adaptation or refinement of special education. It is a

fundamental rejection of special education's claims to be inclusive. Inclusion demands that we address the politics of exclusion and representation. Different kinds of research present themselves as requirements for the kind of educational reconstruction required for democratic schooling. Inves tigations of the distribution of poverty and privilege, impacts of pedagogic approaches and educational measurement and assessment, the relationship between curriculum and the politics of representation, school reform that changes outcomes for formerly excluded children all push toward the front of the research queue in the new educational laboratory.

I have suggested a need to put the public into public policy. In reality I am thinking of those publics that have been excluded by the prevailing conditions of policy making. Policy is written at all levels as people receive, interpret and enact education policy in their sphere of activity and influence. Consequently, the agenda change must simultaneously advance itself across a number of sites. I will comment on two of these.

The academy is simultaneously enormously influential and irrelevant to the determination of practice in schools. Focus and accessible language are essential elements in constructing a platform to speak to government. Pursuant to this there is a need to demonstrate the deleterious impacts that our research has had upon the subjects of our research. Here, education has tended to ignore disabled researchers while priding themselves on lessons learned through discussions around gender and 'race'. Mike Oliver confronts the reality of exploitative research of disabled people:

> … the research act is not an attempt to change the world through the process of investigation but an attempt to change the world by producing ourselves and others in differing ways from those we have produced before, intentionally or not. Increasingly as oppressed groups such as disabled people continue the political process of collectively empowering themselves, research practice based upon the investigatory discourse and utilising 'tourist' approaches by 'tarmac' professors and researchers will find it increasingly difficult to find sites and experiences ripe for colonization. Disabled people and other oppressed groups will no longer be prepared to tolerate exploitative investigatory research based upon exclusionary social relations of research production. (Oliver, 2002)

Preparation of inclusive education is not well served by returning to Departments of Special Education to perpetuate monistic research designs. New coalitions of researchers should be enlisted to produce nuanced research capable of interrogating the complexity of exclusion as it is advanced through the matrix of education's activities. Disabled people, disabled researchers and their allies should be sought as leaders in this endeavour. This research programme for new times should reflect a determination to take up the big questions about the redistribution of privilege and advantage.

For the civil service to respond to this reconfiguration academics have to consider the message system and how it is made useful to government. Examples of how large scale curriculum reconstruction has been made politically palatable and practitioner friendly while not avoiding complexity are manifest in the New Basics research in Queensland and the refinement of this in the Essential Learnings work in Tasmania.

The second site for intervention is the most complex. The education bureaucracy, schools being the local branches, is most challenging. It is here where centre and periphery are in a state of constant tension and where this tension may be used productively. Suzanne Carrington and Robyn Robinson's work, building on the excursions into school reform by Ainscow and Booth (Booth, Ainscow, Black-Hawkins, Vaughan and Shaw, 2000), demonstrates the gravitational pull that school-based reconstruction of educational practices can have on large education bureaucracies and in turn on the academy. This is not of itself sufficient to produce the changes required that speak to the redistribution of the material resources required to impact upon the exclusions borne of poverty, disadvantage and Aboriginality and concealed through the redefinition of

fundamental social issues as behaviour, intelligence and language problems with deflective medical aetiologies.

As indicated earlier, a succession of recent reports in Australia point to advances in policy framing unmatched by outcomes. The Victorian Auditor-General suggested that while the level of expenditure was some $AUD2.6 billion between 2006 and 2012 on programmes for students with disabilities, there was no monitoring of what happened to that money after its disbursement and no way of knowing whether the expenditure had a positive impact on students' educational experiences and outcomes. The Auditor-General had made a similar observation concerning the lack of evaluation in the previous report in 2007. Keslair, Maurin and McNally's (2011) consideration of yield for expenditure on special educational needs reminds us of the need to ask whether the sizeable distribution of public money is building the capacity of schools to educate across difference and whether students are benefitting. The power of financial incentives for examining policy effects may provide opportunity to highlight the political question of how schools deal with surplus students and whether schooling can become 'an apprenticeship in Democracy' (Knight, 1985).

NOTE

The title of this chapter in the first edition was 'Inclusive Schooling as a Means and End of Education?'.

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14

Equity in Inclusive Education: A Cultural Historical Comparative Perspective

Elizabeth Kozleski, Alfredo Artiles and Federico Waitoller

This chapter examines inclusive education through these prisms: (a) educational access, (b) participation, (c) opportunities to learn, and (d) equity. Our collective scholarship defines inclusive education broadly in terms of educational activity systems at multiple levels of regulation (i.e., national, state, and local) that compress and expand in response to students whose identities, histories, and experiences do not fit tidily into local dominant cultural norms for a variety of reasons. Our definition of inclusive education states the following:

> inclusive education is a continuous struggle toward (a) the *redistribution* of quality opportunities to learn and participate in educational programs, (b) the *recognition* and value of differences as reflected in content, pedagogy, and assessment tools, and (c) the opportunities for marginalized groups to *represent themselves* in decision-making processes that advance and define claims of exclusion and the respective solutions that affect their children's educational futures. (Waitoller & Kozleski, 2013, p. 36)

Expansion and contraction within local activity systems intersect with racial, class, caste, sexuality and gender identities, knowledge systems, cultures, ethnicities, and abilities. The question *inclusion into what?* is rarely asked (Erickson, 1996). Since the opposite of exclusion is inclusion, a focus on including sometimes omits the critique of the established system that advocates seek to access. Without conscious attention, an implicit (and dangerous) assumption to assimilate can lurk within an inclusive agenda. In this sense, it is not surprising that some commentators have concluded that, 'inclusive education was [originally] offered as a protest, a call for radical change to the fabric of schooling. Increasingly, it is being used as a means for explaining and protecting the status quo' (Graham & Slee, 2008, p. 277). In this chapter we examine the ways in which local, national, and international contexts have appropriated and employed inclusive education, highlighting the need to use equity as a yardstick for the degree to which inclusive education is realized. In particular, this chapter highlights the ways in which race, social class and caste, gender, culture, and ethnicity play roles in how participants in local and national contexts interpret inclusive education constructs indexed by differentiated access, participation, and opportunities to learn.

We conceptualize equity and inclusive education in multi-dimensional schema that ensure consistent and persistent focus on the intertwining roles that culture, history, and context play in daily practice. What passes as inclusive education is embedded in larger cultural historical contexts such as how the purpose and meaning of schooling is defined and by whom (Kozleski, Artiles, & Waitoller, 2011). Using this framework allows us to explore the intended and actual outcomes of inclusive education from an interdisciplinary perspective. We ask what the consequences of these outcomes regarding participation in society are and how constructions of difference draw stratifying lines that benefit some groups but not others. Further, we explore the historical legacies that mediate how inclusive education is conceptualized, implemented, and assessed. By pursuing a vein of inquiry that is steeped in critical analysis, we hope to shift discourse, interpretation, and research from

a focus on how to do inclusive education to deepening our collective understanding of how the legacies of the past inform and shape the way that we mold the present and in doing so, potentially constrain as well as expand educational equity for every student. Using case data from nine nations, we examine these questions to surface the ways in which idealized notions of inclusive education are appropriated and shaped by local forces.

AN OUTLINE WITH MULTIPLE FACES

Despite considerable resistance, inclusive education progressively became a global movement that culminated in international ratifications such as the Salamanca Declaration (UNESCO, 1994), and substantial policy shifts around the world. It emerged at varying timescales within countries and was defined locally and nationally by the populations and families who gave the concept voice. As we explain in the next section, the heart of this movement has been a concern with justice, typically grounded in a distributive paradigm (Artiles, Kozleski, Dorn, & Christensen, 2006). Focused on increasing the equitable distribution of rights and access to educational resources, inclusive education promised to transcend the integration of students with disabilities into typical classrooms in pursuit of a highly ambitious agenda (Slee, 2009). Inclusive education aimed to transform the very nature of educational systems so that greater access, participation, and outcomes for *all* students would be attained and sustained (Artiles, Kozleski, & Gonzalez, 2011). Thus, inclusive education constituted a systemic alternative to the previous institutional response to so-called *different* learners, the special education model that kept the spotlight on the individual learner with distinct deficits. We should note that special education was established, in part, as a means to deliver educational access, hence justice, to populations of students viewed as disabled (Christensen & Dorn, 1997). The individual characteristics targeted in this orthodoxy were disabilities, starting with particular categories of disabilities (e.g., low incidence disabilities) and sweeping larger swaths of the population into the agenda such as the disability category used frequently in the United States and some other places, learning disabilities (Richardson, 1999).

Despite the laudable overarching theme of inclusive education, this notion has had multiple meanings and interpretations and relied on alternative justice discourses throughout its history (Artiles, Harris-Murri, & Rostenberg, 2006; Dyson, 1999). For instance, distinct views of justice have been summoned when rationalizing versus *implementing* inclusive education (Artiles, Kozleski et al., 2006). Moreover, some research examines inclusive education at the classroom level, with little attention to the systemic dimensions of this notion, whereas other studies target the whole school as the unit of analysis. Few studies target school districts or regions, though some publications have rendered a macro view of inclusive education at the national or international levels (e.g., Amadio, 2009; Miles & Singal, 2010). Sometimes the term 'inclusion' is used in such a way that it is reminiscent of the idea of integration (Hodkinson, 2012). More importantly, three trends have emerged in recent years regarding the notion of inclusive education. First, inclusive education, in countries like the US, Germany, Sweden, and Austria, has seemingly become synonymous with special education in which research and practice often targets populations with disabilities (Artiles, Kozleski, & Waitoller, 2011; Wright, 2010). This practice narrows considerably the bandwidth of differences purportedly covered in the inclusive education construct. Second, the visibility of this idea in the research produced in developed nations, such as the US, is apparently decreasing as it seems to be gaining traction in developing nations (Artiles, Kozleski, & Gonzales, 2011). Third, equity questions not previously voiced are being raised in nations that are

striving to offer inclusive responses to their increasingly heterogeneous populations (Artiles, Kozleski, & Waitoller, 2011). As we discuss in this chapter, these developments have consequential implications for the present and future of inclusive education.

EQUITY IN INCLUSIVE EDUCATION: IS IT REDUNDANT?

The short answer is *no*. The longer answer involves recognition of a conundrum within inclusive education: how did a movement designed to produce equity end up creating inequitable learning opportunities for some groups of students? Inclusive education was a response to the segregation and marginalization of certain groups in society (Graham & Slee, 2008). It promises social justice based on the redistribution of access and social goods (e.g., education) and the recognition and value of differences to the social commons (Artiles, Harris-Murri, & Rostenberg, 2006). Yet, the road from rhetoric to implementation has been, at best, serpentine and, at worst, it has lost sight of its destination. Inclusive education has been appropriated at many levels of school systems (i.e., national, state/provincial, local, school, and classrooms) by local historical and institutional contexts in which vestiges of colonialism, cultural imperialism, racism, and other entrenched ideologies inform dominant power structures.

As part of their commitment to the Salamanca Statement and Framework for Action (UNESCO, 1994), nations around the globe have engaged in educational reforms to improve the educational experiences of *all* students. Yet, these responses have resulted in country-specific unintended consequences (Artiles, Kozleski, & Waitoller, 2011). The US, for instance, enacted legislation that holds states accountable for increasing the amount of time students with disabilities spend in general education classrooms. The percentage of time that students with disabilities spend in general education classrooms has increased since the 1990s (Gibson & Kozleski, 2011). Yet, this increase has been distributed unevenly across geographical areas or subgroups of populations. The percentage of students with disabilities included in general education classrooms vary widely across states, ranging from 9.5% to 70%, and access to general location classroom is lower for students with multiple disabilities (Gibson & Kozleski, 2006). In addition, African American students and English Learners are removed from the general education classroom for longer periods of time of the school day than their white counterparts identified under the same disability category (de Valenzuela, Copeland, Qu, & Park, 2006; Fierros & Conroy, 2002). Thus, some groups of students have benefited from more access to learning in diverse, heterogeneous classrooms, but other groups remain segregated.

As Artiles & Kozleski (2007) noted, the inclusive education movement has been silent about fundamental equity questions such as 'who benefits from inclusive education? Where are these the students included? What are the consequences of who benefits and where inclusion is enacted?' (p. 352). The implementation of inclusive education has been shaped by cultural, historical, economic, and political contexts in which exclusion is ubiquitous and has been crystallized in the practices, tools, and ways of thinking of national and local communities. Returning to our question about whether equity in inclusive education is redundant, we contend that the long, as well as the short, answer is *no*. The inclusive education conundrum highlights the need to foreground equity in all inclusive education projects. Embarking on agendas designed to include some subsets of students seems to produce diminished opportunity or quality of opportunity for other groups. Foregrounding equity engages scholars, researchers, practitioners, and policymakers in a continuous inspection

of the shifting margins that exclude some students from meaningful access and participation in education.

ATTACHING FACES TO BROAD SOCIAL MOVEMENTS

Nations from all over the world with the leadership of UNESCO have converged on several occasions (e.g., in Jomtien, Salamanca, & Dakar) in the past 22 years to explore, assert, and formalize the importance of inclusive approaches to education. The official position seems to be that nations must create opportunities for often marginalized groups of children that range from exclusions that bar girls, children with disabilities, children from lower castes, economically-deprived children, children who speak non-dominant languages, indigenous children – the list of marginalizations goes on and on. Yet, in every country, it seems, children are for one reason or another denied access to the opportunity to participate in formal education. And, if given the opportunity to enter, children from marginalized groups are denied opportunities to participate in the most challenging and deeply rigorous kinds of learning that characterize some but not all schools. Further, the emerging recognition that powerful learning processes are at work in the human brain from birth means that formal and informal learning experiences must be accessed early and continuously. Children enrolled in formal educational settings at ages four, five, six or later need early enculturation to understand how to participate and develop their knowledge and thinking skills. These views of learning assume certain propositions about what learning is important and how best to help children develop. They may also conflict with familial, tribal, and local customs and values about what is to be learned and in what ways (Kozleski, Artiles, Fletcher, & Engelbrecht, 2009). In addition to the mechanisms at work to deny some while opening up the gateways to others, then, are the potentially conflicting views of what is worth learning for a social system and culture and what kinds of learning might threaten centuries old ways of living in the world (Dyer, 2001). The nature of these tensions seems to vary from country to country, region to region, and locality to locality and yet, they are grounded in under standing the history and geography of the center and margins.

In our own work, we sought to learn more about how the process of inclusivity and marginalization worked and how local context, history, and cultures conspired in particular ways to create freely flowing streams for some children while others encountered log jams, dams, dry creek beds, and other barriers to their educational progress. Teams of researchers from nine nations converged three times over the course of as many years to develop an analytical framework for making sense of how inclusive education has been interpreted and realized in their countries. These teams came from Argentina, Austria, England, Germany, India, Kenya, South Africa, Sweden, and the United States, and were brought together because of the ways in which their previous work had made connections between equity and inclusive education. In each case, researchers examined specific aspects of their country's efforts to create inclusive educational opportunities. In some cases, such as England or India, researchers examined policy issues related to implementation (e.g., Dyson, Jones, & Kerr, 2011; Singal & Jeffery, 2011), while in others, researchers strove to look at individual narratives and understand those experiences through the lens of students and their families in Austria and Kenya (e.g., Luciak & Biewer, 2011; Mutua & Swadener, 2011). Both the Swedish and Argentinean cases spoke to the consequential assumptions about difference and opportunity that constrain national policy even when the ideal of inclusivity is embraced at least rhetorically (Berhanu, 2011; Skilar & Dussel, 2011). The German and South African teams chronicled their national attempts to design systems that offer opportunity to every

student but through systemic mechanisms limit those opportunities in ways that are difficult to uncover except through careful analysis of outcomes across groups of students (Engelbrecht, 2011; Löser & Werning, 2011). The two US teams used different methodologies to examine the conflation of race and disability in US schools. In one case, examining data from geographers and educational research centers offered a way of overlaying data from multiple disciplines to demonstrate the relationship between local community practices and the everyday school experiences of students in those communities (Artiles, Kozleski, Waitoller, & Luckinbeal, 2011). In the other US case, researchers collected ethnographic data that described the work of schools engaged in reforming their practices because of external, state mandated requirements. Teachers and other practitioners struggled to understand their outcomes in terms of deficit thinking, historical practices, and institutionalized (and therefore, invisible) racism (Ahram & Fergus, 2011). Out of these cases, five critical issues emerged as themes: (a) who's in and who's not; (b) how sorting processes develop and sustain over time; (c) the function or purpose that inclusive education serves, for the state, for educational systems, for families, and for individuals; (d) how the relentless pull of history and complexity mire and support progress; and (e) how policy is influenced and shaped by cultural geography. In the next sections, we explore these issues, using the country cases as a backdrop.

WHO'S THE IN-CROWD? WHO BENEFITS, WHO DOESN'T?

One of the critical lessons from the ten cases that we described above was that researchers reported that in each country, in spite of national proclamations of inclusivity, marginalization existed for some groups of students. Who was marginalized seemed to be connected to whom and what was valued in each political, social, and economic system. For instance, access to cheap, productive labor pools led Germany to open its doors to Turkish, Russian, and Polish immigrants to increase the numbers of workers for non-technical, labor-intensive jobs. And, Germany's immigrant students tend to be overrepresented in special need categories and lower-track schools (Löser & Werning, 2011). Similarly, in the US, production, transportation, and material moving occupations, natural resources, construction, and maintenance jobs as well as jobs in the service industry were more likely to be done by individuals born outside of the US (Bureau of Labor Statistics, US Department of Labor, 2011) who most frequently identify themselves as Latino/a and Black. Austria relied on a number of countries that supplied its factories and service economy with workers including Turkish (primarily Kurdish) immigrants who comprised the largest portion of its immigrant population. In the countries where the influx of immigrants represented a sizable percentage of the country's population (from 15% to almost half of the entire population), researchers found that children who shared similar immigration histories, and/or historical patterns of discrimination, such as African Americans in the US or Roma in European countries, were likely to be overrepresented in special educational contexts.

Examining these persistent and well-traveled phenomena from country to country raises questions about the relationship between status conferred in labor markets and its seepage into educational organization and vice versa. In either case, perceived difference, based on language, customs, approaches to understanding, and historical inheritances contributed to how educators respond to and support the learning opportunities of their students. Moreover, as researchers have demonstrated, students are aware of these stereotypic perceptions and, in their interactions with educators and other school practitioners, respond by meeting the expectations and

institutionalized assumptions of authority figures, as Steele demonstrated in his studies of student performance in testing (1997). This is true when expectations surround failure as well as success. Thus, both the institutional standard bearers (teachers and other practitioners) and the students who are required to participate in formal education co-construct these notions of who belongs and who doesn't, potentially and dangerously maintaining the status quo.

Without explicit recognition of and work on renegotiating these identity and cultural spaces through everyday practice, ongoing deconstruction of the hidden codes that support the dominant culture, and work in the policy arena to renegotiate the distribution of power and opportunity to learn, educational institutions continue to map onto the dominant cultural zeitgeist within their countries. Because of the interplay between labor and education and the likely intersections of religion, politics, business, health care, and other community sectors, changing educational practices and policies will be insufficient to change patterns of inclusivity and marginalization. In subsequent sections, we explore more completely the function that inclusive education serves in our educational systems, uncover some of complex sedimentation that binds notions of intersectionality, analyze the role of equity in taming difference motifs, and examine the role of social geography in inclusive education.

QUESTIONING THE TELOS OF INCLUSIVE EDUCATION: ASSIMILATION OR TRANSFORMATION?

At face value, the goals of inclusive education are laudable, as they emphasize access, participation, and outcomes for historically excluded groups. These are indeed enduring concerns in the history of educational equity struggles. Upon closer scrutiny, however, several unsettling questions arise. First, the notion of inclusivity implies that the groups being included inhabit spaces outside or at the margins of a center that is defined upon normative parameters (Artiles & Kozleski, 2007). Nonetheless, the nature of the center is not defined, questioned, or critiqued. Löser and Werning (2011) describe this point in their work on the German context. Inclusive education has been debated for many decades in Germany, and there is a growing consensus to embrace inclusive programs, particularly among families with children and youth with disabilities. However, the German educational system is organized around fixed tracks with homogenous groups. Certain tracks (e.g., academic secondary school) enhance access to higher education in contrast to other, lower-track secondary schools. Only about 20% of students in lower-track schools moved to higher-track secondary schools, while virtually all students with special needs are served in special schools. For these structural reasons, inclusive education becomes almost impossible, and tends to be found more often in primary grades. In such a system, it is unrealistic to expect inclusive education to root. Even when classrooms or whole schools expand their communities, we must ask, what is the purpose of including students in an educational structure that aims to segregate students by socially constructed notions of ability in the first place?

There is a deceivingly proleptic logic sustaining the inclusive education discourse that could be described metaphorically as the Icarus agenda. That is, the ambitious effort to produce educational equity through inclusive education was doomed from the start because its framework (its wings) and mission was inherently flawed. Specifically, scholars approached inclusive education as if its promise were materialized in the present (Graham & Slee, 2008; Thousand & Villa, 2005). Consequently, inclusive education curtailed its ambitions and diminished its intention by narrowing its purpose. It targets only certain groups of students (i.e., learners

with disabilities). And, it often lacks a transformative perspective that would tackle the historical inequities experienced by marginalized groups. Moreover, the advent of a normative accountability culture in educational systems globally looms in stark contrast with the stated telos of inclusive education. With little evidence of inclusive education's impact on students (Artiles, Kozleski et al., 2006), the opportunities to reposition inclusive education within a broader equity agenda are elusive.

In addition, inclusive education has not taken issue with the deep inequities that accountability policies and practices created for marginalized students, particularly racial minority students with disabilities. This has been documented across nations (Artiles, 2011). Berhanu (2011), for example, explained that the notion of 'equivalence' in Swedish educational policy addresses justice issues as it 'stipulates that the education provided within each type of school should be of equivalent value, irrespective of where in the country it is provided' (p. 114). Nevertheless, the confluence of the accountability movement in Swedish education along with its historical concern with fairness – as reflected in the current focus on 'equivalence' – creates tensions that can ultimately reify the very inequities that the policy aims to tackle. As Berhanu (2011) explained, the ways in which the concept of equivalence is being appropriated, might 'lead to the possibility of accepting segregation from a common or collective identity' (p. 115). For instance, the notion that there is a standard for the kind of knowledge about Swedish history that must be accumulated by a certain grade and age, means that differences in interest, experiences, social practices, and familial access, and age of entrance into the Swedish system are not accounted for. And, failure to achieve the standard at the anointed age and grade results in particular kinds of programs and supports being initiated, with little regard to the individual context. Berhanu (2011) asserts that this situation might be slowing down the progress of inclusive education and the documentation of its impact on distinct groups of students. All in all, inclusive education must answer this profound challenge: is the *telos* of this movement to assimilate marginalized students or transform educational systems to make them more equitable?

ATTENDING TO COMPLEXITY AND SOCIO-HISTORICAL GRAVITY: INTERSECTIONALITY IN INCLUSIVE EDUCATION

A significant challenge for inclusive education, particularly in the age of globalization, is to engage with complexity (Escobar, 2001). Students' lives, professionals' work, and the worlds of policy and research are characterized by complexity. Everyday activities and practices are enacted in contexts in which individual identities, histories, and understandings are being continually interpreted by and understood by other members of the activity systems in which individuals participate. Power and privilege conferred by institutions and through cultural practice are embedded in these interactions as well, adding layers of opacity to actions. Thus, complexity is constructed as a dynamic tapestry that filters social interactions.

Inclusive education is not implemented in a vacuum. Indeed, educational institutions are enveloped in socio-historical gravity in which power plays a pivotal role (Erickson, 2004). After all, the societies in which inclusion is carried out are historically stratified, in part as the result of the influence of power. Hence, inclusive education, with its emphasis on marginalized groups, cannot afford to ignore power. As Stiker explained, '[t]he study of everything that we could call the marginalized allows us to bring out previously ignored or neglected dimensions of that society' (as cited in Graham & Slee, 2008, p. 280). In South Africa, for instance, the inclusive education policy represents one of the best legal frameworks in the world.

Nonetheless, Engelbrecht (2011) showed how the nation's history of race relations and its concomitant effects on school relations can interfere with the enactment of the inclusion policy. Similarly, Artiles (2011) documented the historical intertwining of race and disability in the US and how it hinders efforts to address inequities in inclusive education (Blanchett, Klingner, & Harry, 2009).

One way to engage with complexity is to examine marginalized students' intersectionalities (Crenshaw, 1995). We use intersectionalities here to emphasize the notion that students who are marginalized often experience multiple marginalizations at the individual and institutional level. These marginalizations create the kind of social and educational stratification that inclusive education activists seek to remedy but instead, are trapped by failing to consider the interaction of multiple marginalizations in the ways in which they define and enact educational inclusivity (Hancock, 2007). Despite its ambitious mission, inclusive education in a number of developed nations tends to target students that are typically identified as having disabilities (Artiles et al., 2006). However, the majority of these learners also come from racial minority and low-income communities, and many speak multiple languages that may or may not be the language of instruction. Boys are overrepresented in this population as well. It is interesting that inclusive education research pays attention to these complex intersectionalities only when describing in a fragmented fashion the backgrounds of study samples, but researchers have not produced intersectional analyses (Artiles, 2012). In developing nations like India and Kenya, the legacies of colonialism, as reflected in marginalization processes linked to gender, caste, poverty, and geographical location, intersect with disability status in complex ways and constrain efforts to create inclusive education systems (Mutua & Swadener, 2011; Singal & Jeffery, 2011). Yet, most of the research in these contexts has not focused on the intersections of these markers of difference either. These are missed opportunities given the substantial advances in intersectionality theory and methods that could help produce more nuanced and substantive understandings about the education of these students in inclusive programs and subsequently, find their way into more carefully drawn educational policies.

POLICY NARRATIVES: TAMING DIFFERENCE IN THE NAME OF EQUITY

Educational policies have had non-linear trajectories in which trickle-down agendas intended to produce particular kinds of outcomes get adapted to the particular demands of local contexts (Tobin, 2005). The globalization of educational policies, thus, has created general patterns with local flavors. National, regional, and local polices interact, compete, and reshape how inclusive education is appropriated and implemented. Policies, after all, embody the ideologies, the historical legacies, and the cultural discourses of difference of a community (e.g., a nation). They tell a story about inequities and their solutions, about centers and peripheries. In other words, they embed narratives that point to the *who and what* of inclusive education. That is, policies define who is marginalized (e.g., students receiving special education services, racial minorities, females), the forms of exclusion, and what must be done to overcome them (e.g., redistribute access, recognize and value differences, etc.). Let us take stock of some of the current narratives that have shaped the implementation of inclusive education across the globe.

Currently, educational policies based on accountability, standards, and school-choice are ubiquitous, particularly in post-industrial nations (e.g., England, Germany, Sweden, and the US, among others). These reforms have created systems to identify the 'who' of inclusive education. Strengthened by an apparent fetish

for quantifying and controlling educational access and quality (or *a notion* of quality), educational systems count and recount the access and outcomes of certain groups of students. Outcome data are disaggregated by subgroups of marginalized students (e.g., ethnic and linguistic minorities, students with disabilities, etc.) to indicate which students have not realized the promises of inclusive education. This brings visibility to certain groups of students and their schools and makes their differences the focus of state intervention.

In these policy narratives, the 'what' of inclusive education refers to the limited or lack of access to schooling and quality education as indicated by a selective cluster of quantifiable performance indicators (e.g., standardized academic assessments and identification rates for special education, dropout and graduation rates). The solutions prescribed by these narratives are informed by a fusion between a medical model that focuses on fixing individual students and schools and a market model that decentralizes education and is intended to provide selection criteria for families to choose the site for their children's education. The same market model is designed to help administrators and educational leaders to localize the sites for state intervention. What gets measured gets addressed.

However, families choose schools based on a number of factors, including proximity, neighborhood, safety, transportation, access to afterschool care, and the overall achievement of students in the school (Chumacero, Gómez, & Paredes, 2011). Non-academic factors may have as much to do with how a family operates and manages its day-to-day realities as test scores on achievement tests. Hence, the market notion of choice based on school outcomes may not be relevant to many families and the criteria of relevance may depend on economic factors. Relying on families to make school choices based on aggregate test scores ignores the notion that pursuit of family quality of life takes on particular valences given the intersection of a number of factors. And, when administrators focus on improving test scores, they run the danger of limiting student access to a number of learning arenas that may produce better long-term school benefits than performance on a grade-normed, one-time measure of reading or math performance. For students who are learning to 'do school' for a variety of reasons, including their immigration, language, ability, interests, and opportunities to learn, their performance on these one-time measures rarely gives teachers the kind of in depth information they need to personalize the learning experiences for their students.

Following an approach to remedies based on a medical model, schools that do not conform to formulaic performance indicators become the subjects of intensive state interventions that focus on both individual students such as response to intervention in the US (see Vaughn & Fuchs, 2003) and schools in which entire school faculties are let go for not achieving certain performance targets (see Lipman, 2007). Governmental interventions are legitimized on the basis of equity and implemented through technical solutions that are prescribed for those in need. Take, for instance, efforts in the US to address the overrepresentation of minority students in special education. The federal government requires states to calculate, report, and, where disproportionality is found to be a result of inappropriate identification, decrease the proportions of minority students identified for special education. Ahram and Fergus (2011) chronicled their collaborative work with school districts in New York State to address overrepresentation identified through these official processes. The authors reported that one contributing factor to the over-identification of minority students for special education was the deficit thinking of school personnel that permeated the design and implementation of interventions to prevent special education identification. As the authors wrote:

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The transition program was well intended: that is, Carroll [the school] wanted to help in the acculturation process of black students by reviewing with them expected conduct and educational practices of successful students in Caroll. The stumbling block of such programs, however, is the failure to examine the difficulties black students were experiencing beyond the perception that 'the black students just don't know how to code switch', as one teacher lamented. The transition was focused on getting the black students to fit into Caroll's system, and at times at a faster rate. (Ahram & Fergus, 2011, p. 136)

Ahram and Fergus (2011) reported that schools continued to identify African American students as in need of interventions (focusing on difference) reinforcing teachers' deficit views of students. The main goal of interventions was to assimilate students to school practices 'just in time' to achieve benchmarks of performance. This example highlights how narrow technical solutions that focus on eliminating difference eclipse the opportunities to address expansiveness. That is, rather than questioning the dominant culture and practices of the school, thus expanding them into inclusive cultures and practices; there was a focus on fixing individual differences. In contrast, expansive strategies shift the unit of analysis and renewal from students to the design and development of learning contexts in which access to the curriculum is created through cultural modeling (Lee, 2007), universal designs for learning (Rose & Dalton, 2009) and professional development work with teachers. This work helps teachers to re-mediate their understanding and practice around co-constructing cultural contexts that embrace and draw students into a community of practice around learning (Kozleski & Artiles, 2012). As these pedagogies and curricula are constructed, they serve as wedges that alter the landscape of schooling. The more familiar policy narrative that reifies deficit views of marginalized groups drains the value of inclusivity and its promise of expansive designs for learning.

A market model is also advanced in some policy contexts as a remedy to exclusion. Take, for instance, a Swedish example. Berhanu (2011) reported that dramatic changes occurred in Sweden in the 1990s when education began to be regarded as a private rather than a public good. Educational policies shifted from community values to individual rights and the control of funding allocation was decentralized. This decentralization was coupled with a conservative political movement towards standardization, accountability, competition, and individual choice (Berhanu, 2011). The increasing use of nationally-administered tests produced information for parents to exercise their individual rights, moving their children to the best performing schools. Ball's work (2006) demonstrated how parents' and administrators' decisions based on a market model resulted in perpetuating and even narrowing centers and furthering peripheries. Parents moving students to better performing schools redistribute resources (e.g., funding and social capital) depleting schools that need the most support. School choice becomes a class strategy, for those who can take advantage of it, to climb the ladder in a capitalist society.

On the other hand, schools under pressures created by accountability and competition tend to identify struggling students for special education or special needs so that their scores do not count against them for accountability purposes (Ball, 2006). In addition, struggling students and students with disabilities tend to be counseled out of certain schools for fear that these students may damage the performance of such a school. This may explain why, in Sweden, the overlapping implementation of standard, accountability, and school choice policies resulted in a dramatic increase of students labeled as special needs and in segregated schools for students with intellectual disabilities (Berhanu, 2011). Furthermore, Sweden continues to experience unprecedented massive immigration waves that have diffused Sweden's homogeneity. There is emerging evidence that immigrant students in Sweden are now overrepresented in special schools and segregated

classrooms (Berhanu, 2011) as we found in many other western countries such as Germany and England (Artiles, Kozleski & Waitolles 2011; Dyson & Gallannaugh, 2008).

Ahram and Fergus (2011) highlighted an increase in labeling practices in their account of schools under reform mandates. Schools organized student interventions to align with students' levels of achievement on a state-designed assessment of Language Arts (i.e., reading and writing skills) proficiency. Personnel in charge of improving outcomes explained that they focused on only some failing students. They worked to move students who performed just below the performance target (Level II students) into the passing range. They placed no effort in helping students progress when they were performing far below the performance target (Level I students). In the struggle to serve and support all students to achieve performance targets, new labels are emerging to organize and regulate students' perceived differences in ability. In the name of inclusion and equity, labeling and segregation occur now with more sophisticated forms of tracking. Inclusive education promises that everyone can access educational goods, learn and achieve. Yet, as McDermott, Edgar, and Scarloss (2011) stated, 'the more equality a person is promised, the more degrading the punishment for not attaining it. The more learning everyone is promised, the more need for theories of personal disabilities and within child deficits' (p. 230).

These policy narratives do not acknowledge that the margins that demark exclusion are based on and constructed through historical, cultural, and social relationships. Focusing on individual students and schools eclipses the opportunities to understand complex problems that involve wider social ecologies. In Ahram's and Fergus' (2011) case, for instance, school professionals had firm ideas about the abilities of black students. These ideas interacted with and were reinforced by institutional interventions that highlighted black students' differences, counting them as deficits (Blanchett, 2006). The narratives of contemporary reforms narrow the 'what' of inclusive education from a cultural and political problem to a technical and economic one. We must ask why discrimination and exclusion are so deeply embedded in educational practices. The answer seems to be that schools were and continue to be designed only with some people in mind (Slee, 2010).

In a context in which standards, accountability, school choice policies, and prescribed interventions regulate how differences are addressed in schools, inclusive education rhetoric has been appropriated to cover increased surveillance and management of marginalized populations through standard protocols for improving performance, borrowing decision making motifs from industry (Zion & Blanchett, 2011). Inclusive education is becoming a tool for governmentality (Foucault, 1982) to spread the cultural and economic values of dominant groups. To borrow from McDermott et al. (2011), we are witnessing 'global norming'; beneath the lure of inclusion in contemporary educational reforms, there are practices that reify ethnocentrism, ableism, and competition, and a telos of assimilation. Under the umbrella of inclusive education, both assimilationist and transformative agendas are being spun simultaneously.

GEOGRAPHIES OF OPPORTUNITIES: THE ROLE OF SPACE IN INCLUSIVE EDUCATION

By examining inclusive education around the globe, we learned about the significance of geographical spaces in the emergence of inequities. Certain geographical areas within nations and sometimes within neighborhoods (see Artiles, Kozleski, Waitoller & Luckinbeal, 2011) provide differential opportunities for people to access and use valuable social goods. Take the case of overrepresentation of immigrant students in

special education schools in Germany. Löser's and Werning's (2011) analysis noted that the segregated structure of the German education system has resulted in disparate forms of access and outcomes across groups of students. Immigrant students (i.e., Italian, Serbian, and Turkish) were overrepresented in special schools for learning difficulties and in lower academic secondary schools. Students of Serbian nationality, most who are second-generation refugees of Kosovo, were over six times more likely to attend segregated schools than their German born counterparts.

Interestingly, the likelihood that immigrant students would be identified with learning difficulties varied across German states. In Baden-Württemberg, for instance, immigrant students were three times more likely to be identified with learning difficulties than in Berlin and Bremen. Löser's and Werning's (2011) work pointed out that these differences across geographic areas cannot be attributed to individual differences or deficits. Rather, they need to be understood in light of the affordances and constraints of educational systems and their wider social ecologies. The political and cultural organization of space is a powerful factor that shapes the implementation of inclusive education. As the authors explained, the school systems in Baden-Württemberg have rigid structures that make the movement between different types of schools more difficult for immigrant students. In Berlin and Bremen, in contrast, there is more political support for inclusive education than in the rest of the country and a history of providing support services for students within the general education classroom. In contrast, the school systems in Baden-Württemberg continue to invest in segregated settings as a form to improve educational achievement for immigrant students without data that supports its efficacy.

The example from Germany described how resources and tools available in certain spaces constrain and shape the way that differences are addressed. Soja (2010) used the term spatial (in)justice referring to the fair and equitable distribution across special areas of socially valued resources such as health, education, mass transportation, grocery stores, and tutoring enters, among others. Geographies of opportunities are linked to spatial (in)injustices and shape how inclusive education is interpreted and implemented. In the German example contrasting models for addressing immigrant students were distributed across geographical areas (Löser & Werning, 2011). Attending to these geographies of opportunity contributes to the understanding of inclusive education as embedded in sociocultural, historical, and locally situated process, providing a more nuanced understanding of inequities that exist within models of inclusive education. By attending to social geographies, the analysis shifts from focusing on individuals' and groups' traits and outcomes (e.g., academic achievement, income level, nationality, etc.) towards the work that people do together in spaces fraught with policies, cultural histories, and particular distribution of resources. Or in other words, it shifts 'the analytic lens from individuals or groups of students to constellations of influences that forge local actors' decisions about who is able and disabled' (Artiles, 2011, p. 443). This contributes to improving the design of inclusive education by offering counter narratives to deficit perspectives of marginalized students and places the burden for change on how systems are designed and made accessible.

We must note that while examples of spatial (in)justice can be described, it is much more difficult to identify and understand the underlying processes producing inequitable geographies (Soja, 2010). That is, we seek to understand and theorize how physical, intellectual, and social resources are distributed and valued based on culturally-constructed forms of addressing differences. Place and agency exist in reciprocal relationships. Place is not merely a container or stage but serves as an active ecology that shapes human

activity (Soja, 2010). The data of global norming do not tell us the story we need to know to make deep changes. As McDermott et al. (2011) reminded us, the story of inequities is in the details and so are the solutions.

REFLECTIONS ON THE FUTURE OF INCLUSIVE EDUCATION IN SPACES FIXATED ON ACCOUNTABILITY AND DIFFERENCE

Inclusive education is ill-served by the multiple definitions and interpretations of what it is and isn't. Because it is most frequently connected with an agenda around the education of persons with disabilities, inclusive education, in practice, has come to be a special educational space that requires specific kinds of qualifications to be admitted. Once some sort of gate is installed, then, inclusivity is no longer possible since needing admission necessarily means that some will be denied admission. While scholars (e.g., Cherney, 2011; Hehir, 2002) have coined the term ableism to parallel other forms of discrimination like racism, sexism, and homophobia, ability differences seem to occupy a distinct space within schools in spite of the clear intersectionality with other forms of difference. The notion of one educational system, unified in its mission to offer educational opportunities for each and every student, remains elusive.

First, access to education is variable because of the ways in which difference is conflated with disability. Since disability serves as a proxy for failure, students who are different (and therefore, disabled) are siphoned into milieus in which lowered expectations and a focus on drilling skills limits student access to dynamic, engaging curriculum. As we examine the contexts of inclusive education across nations, we note that not only is educational access limited but identifying students as different also curtails the extent to which they are able to participate in a full range of educational opportunities to learn. In turn, lack of access and opportunity leads to deep concerns about the degree to which any system that limits access to some students can be said to use equity as a means for determining quality in terms of outcomes. Institutional barriers at multiple levels of regulation (i.e., national, state, and local) can, by design, advantage only some students who meet the criteria for access and opportunity. Forms of qualifying seem to exist in all of the educational systems that we examined. That is, education systems expand and contract (i.e., include and exclude) based on historical, current, and anticipated opportunities provided within communities at large to imagine, adapt, and shift their interests and priorities based on human diversity and local opportunity. Inclusive education offers the promise of systemic transformation in which policies, practices, pedagogies, and curricula alter in response to the needs of students, families, and communities, creating ever expansive learning communities that push the boundaries of what is understood, the questions that are asked, as well as ways of knowing. Conceptualizing inclusive education as a work-in-progress means that the work of understanding who is marginalized requires knowledge of the historical and contemporary mechanisms that produce the center from which margins are produced. As well, it means understanding how margins are drawn and redrawn in response to the dynamic nature of cultural practice. But, most versions of inclusive education in practice throughout the world are far from these lofty ideals.

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15

How Special Needs Funding Can Support Inclusive Education

Sip Jan Pijl

INTRODUCTION

'Money makes the world go round' is a well-known song from the 1972 musical 'Cabaret', starring Joel Gray and Liza Minnelli. The gist of the song is that money is what keeps the world turning. Or, stated otherwise, our society and that includes our education system relies heavily on money. It does not rely on respecting children's rights, nor on inclusive education for all … but just on money. Hopefully this is an overstatement and the song, of course, is not at all about education, but yet the title holds good for education as well. Without public funding, education, and certainly special needs education, will not go around any longer. It will become a luxury for small groups in society, as it was long ago in the West and still is for some developing countries (Srivastava, 2012). In the West, we now take it for granted that vast amounts of public funding are earmarked every year for education, including special needs education.

For a long time it was common practice to refer students with special educational needs to special schools, but in many countries that is no longer the case (Vislie, 2003). Nowadays the trend is towards more inclusive forms of education. The term 'inclusive education' refers to schools having a large diversity of students, including those with special needs, and providing differentiated education for them.

Many parents and education professionals regard the available resources for special needs education as being just enough, or perhaps ask for more. Securing enough funding for students with special needs in inclusive settings has become an important issue for both parents and teachers and in many countries this has resulted a bureaucratic situation, which focusses on eligibility for any additional funding (Pijl & Frissen, 2009). In particular, the amounts of funding available for special needs education are often heavily criticized and scrutinized in courts of appeal. In most cases local governments are accused of not following the rules and providing insufficient resources. Every court case lost by local government opens the floodgates for other parents and schools to ask for additional funding for similar special education needs students. Funding special needs education is a story of increasing numbers of students with special needs, increasing numbers of referrals, increasing expenditure and increasing numbers of students in segregated education settings (Dekker, 2009). Yet funding special needs education is a finite resource and (local) governments are held accountable for any budgetary deficits. Individual parents and schools do not worry at all about the macro effects of their micro level actions to secure funding for a particular student. Their actions are focussed on improving facilities for one particular student.

Surprisingly in these discussions on funding, it is the amount of funding that is being discussed rather than how the funding is made available. The general feeling is that there should be ample financial resources for making education more inclusive (Flem & Keller, 2000) and that the flow of money hardly matters (Pijl &

Meijer, 1999). How money makes the world of special needs education go around is largely overlooked. However, some studies (Fletcher-Campbell, Pijl, Meijer, Dyson & Parrish, 2003; Meijer, 1999; Pijl & Meijer, 1999) have pointed out that the way in which the allocation and distribution of financial resources is organized may have a significant impact on the implementation of inclusive practices. It is argued that the flow of money for special needs education can facilitate (or hinder) including students with special needs in regular schools.

   This chapter addresses the question of how special needs funding can support inclusive education. It discusses two models of funding, criteria for funding, the effects of strategic behaviour and the reallocation of resources by schools and teachers. The final part of the chapter proposes a way of funding that supports inclusive education.

FLOW OF FUNDING

Different ways of funding special needs education have been described and analysed, including input, throughput and output funding (Meijer, 1999). Input funding means funding is made available to schools if students meet certain eligibility criteria, whereas throughput funding means funding is not based on the number of pupils eligible for special needs education, but is linked to particular tasks or services a school is expected to fulfil or offer. The third funding model, output funding, is based on meeting certain output criteria, like average school achievement scores, the idea being that high output scores yield more funding. An output model rewards being effective, but it also seduces schools to find unintended ways to secure certain results, that is, it may encourage schools to open their doors to students with high academic potential and refer students with less potential to other parts of the system. Output funding is hardly used in special needs funding (Fletcher-Campbell, 2001). It seems, however, to be an attractive model for certain policymakers and parents studying school league tables. Because of their limited use in special needs education, this chapter pays no further attention to output models of funding.

   Most special needs funding is based on an input or throughput model, or a combination of the two (Meijer, 1999). An advantage of input models is that the funding is normally earmarked and is delivered directly to those needing it. Direct input models require forms of assessment and labelling. In so doing, it stresses the special position of students with special needs even more and is therefore generally seen as a form of funding hindering inclusive education. A second problem with input funding is that the eligibility criteria have to be objective and well-defined and the actors receiving the funds unable to manipulate these. If not, the model is vulnerable to strategic behaviour of parents and schools (Elster, 1992). Parents and schools try to maximize the funding made available to their children/students which results in growing expenditure. Every student meeting the eligibility criteria brings extra funding and this stimulates a 'search for pathology' (Ysseldyke, 1987). After additional funding has been secured, schools can decide to hand over special needs students to 'specialists', thereby relieving the other teachers from having such students in their class. A third problem with input funding is that it stimulates schools to ask for additional funding for each additional task. Schools then hold the government responsible for all changes and innovations in school and expect that these come with additional funding. This 'grant-addiction' (Frissen, 2005) may block development in schools. An example of an input model is the Dutch 'back-pack' system in which funding is made available after a positive decision

based on an independent extensive assessment and is then forwarded to the student requiring additional services. Students take the funding with them in their 'back-pack', as it were, to the school of their choice. The 'backpack' does not literally contain money of course, but a voucher with which additional educational support can be purchased. In this model students are the so-called 'destination locus' of the funding.

A throughput model gives professionals in or around the school the means to decide how best to use available resources. In this model, the central government decides how much funding will be available for each region, and which level of services have to be provided. It often uses relatively stable indicators, like the total number of inhabitants or students in a region, to decide the total amount of funding made available to each region. At regional level decisions are taken on the use of funding for particular students. The strong advantage of throughput models is that without too much bureaucracy the professionals directly responsible for special needs education can decide for themselves how to use the available budget. It can be used more flexibly and is less prone to strategic behaviour. That is why throughput funding from the central government to regional level (municipalities, districts, school clusters) is regarded as the preferred option in implementing inclusive education (Meijer, 1999).

A potential disadvantage of the throughput model is that it may generate inactivity and inertia: regardless of anything, or what is or is not accomplished, funds will be available. Throughput models in which regions have a large say in how funding is used may lead to reallocation of budgets for special needs funding. While regions may add additional resources to those already available for special needs education, they can also decide to use parts of the funding for other urgent purposes. One school board may focus on education for extremely talented students, for instance, while another may excel in managing behavioural problems. A school board may decide to offer not only full-time regular or special schooling, but also offer part-time provisions like the Dutch 'Group in School model' (GIS) in the city of Almere (Pijl, Skaalvik, & Skaalvik, 2010). Environmental conditions may also influence the approach chosen. For example, in sparsely populated areas, the regular school may be the only option, while in densely populated ones a wider choice of regular and special schools is often available. If boards are held responsible for transport, school buildings and materials as well as for education, and if they are more or less free to act on their own discretion, there will be even more variation. This can result in schools in different regions being resourced differently.

Another potential problem with special needs throughput funding is that regions with an unanticipated high number of special needs students or other financial difficulties may encounter a shortfall in available funding and difficulty in meeting these students' needs (Fletcher-Campbell, 2001; Fylling, 1998; Meijer, 2003). In such a scenario differences in funding levels among regions could exist, leading possibly to different ways of meeting students' needs. Generally, financing public education aims at equity, meaning that each student is treated equally in equal circumstances. This could be a problem with throughput funding models. The Dutch parliament considered this a serious risk and decided that all students with special needs had a fundamental right to appropriate and equitable funding and education and thus rejected working with the throughput model, choosing instead to develop new regulations and criteria for input funding (Pijl & Veneman, 2005). All students with comparable special educational needs received the same funding. It was assumed that this would lead to similar provisions within schools. Whether it did is unknown, but what is certain is that it led to an unprecedented growth in the number of students declared eligible for special needs funding. Now, the Dutch government has almost no option than to take drastic measures in order to curb this

growth.

CRITERIA FOR FUNDING

Input and throughput funding are models to divide available resources. The quality of these ways of dividing funding can be judged by applying quality criteria. Several authors have developed (long) lists of criteria for evaluating funding models (Meijer, Peschar and Scheerens, 1995; Parrish, 1994, 1995). Meijer (1999) suggests reducing these to three: effectiveness, efficiency and immunity against strategic behaviour. Effectiveness has to do with achieving the goals of a particular funding system. If the chosen way of funding aims at strengthening the position of students and parents and enabling them to buy the services they see fit, then this should be central in evaluating the effectiveness of the system. If, on the other hand, the main aim of a particular way of funding is to reduce the number of referrals to special schools, the effectiveness should be evaluated in terms of that goal. Schools typically operate in an arena in which many different goals are defendable and effectiveness is therefore difficult to show.

The evaluation of the efficiency of a funding model is based on the proportion of available funding actually spent on special needs education for students. If relative large amounts of available funding are used for labelling or bureaucracy, the efficiency leaves much to be desired.

The third criterion, strategic behaviour, is defined here as all activities aimed at improving position while operating against general policy guidelines (Grietens, Ghesquire, & Pijl, 2006). This does not mean that persons or organizations that do this act illegally, but they opt for maximizing the outcomes of a certain funding system, even if it is not in keeping with the intended outcomes. For example, the Dutch government made special needs funding available via an input model not only to special schools, but also to regular schools. The idea is that students with special needs could shift from a segregated to a more inclusive setting. In daily practice, however, special needs students in a special school stayed there and growing numbers of students in the regular schools were nominated for additional special needs funding. The terms 'calculating school' (Meijer et al., 1995) and 'Homo economicus' (Post & Vennix, 1992) indicate the strategic behaviour involved here. Schools and teachers should not be blamed, however, for making the most of the opportunities the input funding offers. Understandably, they try to optimize learning environments for their individual students within the boundaries of what is possible. Strategic behaviour is a key issue in developing funding models. Anticipating the unintended outcomes (Ankersmit, 1996) and plugging unwanted loopholes in funding regulations is a continuous battle.

FIGHTING STRATEGIC BEHAVIOUR

Both throughput and input funding evoke different forms of strategic behaviour. A good funding system should limit such possibilities. In countries with an input model, like Germany, Belgium, the Netherlands or Switzerland, schools and parents can nominate students for special needs assessment, manipulate reports about the severity of students' needs or perhaps even influence the members of an assessment board, thus gaining extra resources. However, even with the throughput model, where extra students with special needs do not bring extra funding, referring students to other schools or to a special school results in fewer students with specific needs. This means less work without loss of funding.

Table 15.1   Elster's decision model

Levels	Decisions	Actors
First order	Amount of funding available	Governments
Second order	Division of funding	Independent bodies
Third order	Use of funding	Schools and teachers

To combat strategic behaviour governments adapt regulations and criteria for special needs funding. One way to make the system more resistant is to combine funding systems. By having a throughput system and the government making it obligatory that large regional school boards distribute special needs funding with an input system, the forms of strategic behaviour explained above no longer work. Nominating students, manipulating reports or influencing the assessment team does not influence the amount of resources in a throughput system. Nor does referring students to other schools work out well in this combination model. Other school boards know the 'trick' and will not accept the student. In this combination model schools can try to secure as much funding as possible from their regional school boards, but this comes at the cost of their colleagues in neighbourhood schools.

Bringing funding safely from a central level to schools is clearly far from easy. Elster (1992) developed a decision model which distinguishes three levels of decision-making in this process (see Table 15.1).

First-order decisions affect the total amount of funding available and the central government is often the main actor on this level. Second-order decisions have to do with the distribution of funding and in throughput models, for instance, the municipality or district could be the acting party. Third-order decisions focus on using the funding. Regarding special needs funding these decisions are usually taken by schools and/or parents. Elster's model can be used to judge newly-developed or existing funding models. The main characteristic of a good model is that first-, second- and third-level actors are different persons/bodies. If the central government acts as first-level actor, regional bodies as second-level actors and schools or parents as third-level actors, the possibilities for strategic behaviour are reduced. If second-level actors divide available funding on the basis of relative stable criteria unrelated to the reasons for additional funding for the third-level actors, the risks of strategic behaviour are further reduced. A criterion unrelated to the reasons third-level actors request funding is, for example, the number of inhabitants or students in a region. A criterion for dividing funding related to level three actors' reasons are student IQs and DSM IV categories.

From Elster's model, it becomes clear that input funding is vulnerable for strategic behaviour. Input funding presupposes that first-level actors do not decide on the amount of funding available (open-end funding) and therefore have no influence. The second-level actors normally divide the funding on the basis of proven needs. Often third-level actors are involved in preparing assessments needed by second-level actors and can influence second-level decision-making. Working with a throughput model seems a safer option. First-level actors can decide on the total funding available, second-level actors divide the funding using relatively stable criteria unrelated to the need for additional funding of third-level actors, while the latter are only involved in using the funding. In this way, the independence of the actors is secured and funding will be divided fairly.

REALLOCATING FUNDING

Bringing funding from a central level to schools, however, is only part of the story. The different funding

models discussed above focus on delivering resources from a central level to users of the funding. The models do not take into account how third-level actors like schools and/or parents use the funding.

Teachers make decisions on reallocating their resources. In an average class, each student brings an equal amount of resources. In daily practice, however, teachers seldom use an equal amount of resources for each student (Pollard, Broadfoot, Croll, Osborne, & Abbott, 1994). Some will receive more teacher time, use more materials or require more teacher skills, while others perform and do well with less. Schools with special needs students, ethnic minorities or socio-economically disadvantaged students often leads to additional funding, thereby increasing available resources in the form of extra support teachers, teaching assistants or extra materials for instance.

Successive governments in the UK have largely left schools free to use their resources as they see fit (Fletcher-Campbell et al., 2003). Schools' decisions on how to use funding is then more determined by local factors than by any central guidelines. These local factors comprise some assessment of needs, but also patterns of provision in the school, head teachers' preferences and needs formulated by teachers and parents.

Other funding regulations suggest or prescribe additional funding be solely used for students eligible for funds. Parents often see the funds as 'owned' by them and their child, but teachers may well decide to reallocate this funding as well (Clark, Dyson, Millward & Skidmore, 1997; Fylling, 1998). Asking a support teacher not only to work individually with a special needs student but to teach in a small group with other students likely to profit from the extra attention, is of course a form of reallocating funding.

The way teachers redistribute funding depends on what they and their fellow staff regard as an appropriate strategy. This may lead to different education programmes for comparable students with special needs in different schools. Indeed, research by Crowther, Dyson & Millward (1998) shows considerable variations in provision for students with similar special needs in different settings or schools. This may possibly set aside the intentions of national or regional funding regulations regarding an equitable distribution of funding. Policymakers may well control the funding regulations and try to restrict the degrees of freedom schools claim, but have a limited say in how the 'consumers' at school level translate the available funding into special needs provision (Fletcher-Campbell et al., 2003). Policymakers can only rely on a 'resource and hope' strategy (Crowther et al., 1998).

INCLUSION AND FUNDING SPECIAL NEEDS EDUCATION

Despite considerable progress being made in drawing up new education policy, legislation and regulations as well as empowering parents and making society more aware, a number of authors have concluded that progress towards inclusive education seems to have come to a halt (Ferguson, 2008; Vislie, 2003). Several reasons for this have been discussed, but the overall conclusion is that teachers as key-players in inclusive education hesitate to accept responsibility for special needs students in their class (Pijl, 2010). Teachers prefer to hand over all responsibility for teaching students with special needs to special classes or a specialist school team. One way to make referral less easy is holding a local regular school responsible for all students in their catchment area. The school should remain fully, or at least partly responsible, even if there is no other option than to refer to a special provision. The question is how funding can support this.

In countries like Sweden, Ireland and Austria, the local school is responsible for meeting the educational

needs of all its students, but after a referral the new school then becomes responsible. In Norway and Scotland, legislation goes one step further: after a referral outside the catchment area, the municipality (Norway) or the regional education authority (Scotland) stays responsible for the referred student. In both countries, the responsibility for all students living in a managing body's region includes financial responsibility. After referral to a school outside the catchment area, the responsible authority is obliged to finance education according to the standards of the new school body, plus possible travelling and residential expenses. Such financial consequences may decrease the number of referrals and motivate local authorities to solve problems in their own region.

A body cannot be made responsible without having the instruments to act (Pijl & Frissen, 2009). Considering the disadvantages of input funding discussed earlier, it seems wise to place resources for special needs education at regional bodies' disposal in the form of throughput financing. The central government decides how much funding is made available, an independent committee divides the resources and transfers these to regional bodies, who are then the destination locus for special needs funding. The second-level actors divide the funding using a number of relatively easy identifiable indicators, like the total number of children in a specific age range of a region, the percentage of small schools, or regional expenses for social welfare. For throughput funding, the actual number of children with, for example, intellectual disabilities or ADHD is irrelevant. An assumption behind this way is that the percentage of students with special needs is more or less similar in each area.

In many countries, regional authorities then divide resources further via input funding, resulting in a combination of throughput and input funding. Input funding can be based on the number of students with special needs for instance. The allocation of student-bound budgets to students with special needs in the Netherlands is an example of this at national level, but regional or local arrangements are also possible. Counting students with special needs requires some sort of categorization. This can be based on extensive (psycho-medical) assessment, but it is also possible to fund on the basis of a needs description, i.e., in the form of an individual education plan (Pameijer & Beukering, 2004). The latter version avoids unnecessary labelling of students by focussing on the additional support required for each special needs student.

This last phase of funding special needs education does not necessarily comprise input funding. It is also possible to work with a throughput/throughput combination. Funding from the central government goes via a throughput model to (regional) bodies, who then transfer the funding via a second throughput model to schools. The (regional) bodies decide on the amount of funding available for special needs education, a second-level actor divides the funding over (groups of) schools and the schools use the funding. In a number of municipalities in Sweden, the funding does not come to the school in the form of money, teacher hours or a voucher, but in the form of a support team. In other words, the second-level actor does not divide funding, but divides support staff over a group of schools. With this way of working, needs assessment and labelling are replaced by teachers and support teams consulting together about the need and possibilities for supporting special needs students.

Financing 'low-incidence' disabilities is a special issue in many countries. In countries like Scotland, Ireland, Norway and Sweden, school bodies are responsible for educating all students in their catchment area, with the exception of students with severe and/or complex problems. The central government assumes that the latter students would take up a large share of special education resources, leaving fewer for students with less severe

needs. A problem with this system is that it leads to a form of needs assessment at state level, including the risk of growing expenditure. A system like this requires clear definitions of 'severe needs'. However, as this chapter shows, experiences in the past with such definitions have been rather discouraging. Therefore, decentralized financing for educating students with severe needs may be a better option for central government, but it throws the responsibility upon regional bodies then facing similar problems.

CONCLUSION

Decisions on funding special needs education do indeed make the world of special needs education go round. There are many decisions to be made: the funding model, the criteria, the destination locus, the type of funding (money, vouchers), controlling strategic behaviour and rules for low-incidence needs. Each decision and each combination of decisions results in different funding systems and has different effects. An overall conclusion is that forms of input funding and inclusive education do not sit well together. Input models emphasize labelling, resulting in much assessment bureaucracy, and support the idea that some students are more special than others. Throughput models do not rely on individual characteristics, decentralize decision-making on special needs education and bring responsibility for special needs education to school level. Generally throughput models can result in different ways to organize and fund special needs education. If that is unacceptable because it interferes with equity as a starting point, the only option is to work with an input model. But even then equity is not guaranteed. There are reasons to believe that regardless of the funding model and even regardless of regulations about earmarking, schools reallocate the funding as they see fit. The combination of throughput funding and reallocation will lead to differences in provision. Choosing an input model to avoid these differences is too high a price to pay. The only option is to evaluate regularly the education outcomes and aim for equality of output instead of equity of input.

Discussing models for resourcing special needs education is in itself based on the notion of the existence of regular students and special needs students. In many funding models special needs students are segregated from regularly-funded peers. The fact that special needs funding for individual students often exceeds the amount of funding for regular students, does not change this. National governments can opt for a system including all funding for education. In theory, all funding could go straight from the national government to school bodies or schools, who can then decide what to do with this lump-sum funding without earmarking. The Norwegian government states that virtually all resources are directly handed to schools – virtually, because earmarked funding for 'low-incidence' disabilities is following a separate track. That is not an unfamiliar pattern. It is relatively easy to regard regular funding and special needs funding for high-incidence groups as one lump-sum. For low-incidence groups with sometimes complex and costly needs, the risk of schools running out of resources is too large. Segregating these groups is then the better of two evils.

One of the previous paragraphs linked inclusion to funding special needs education. The underlying question is whether (flow of) funding can make education inclusive? Funding alone cannot make education inclusive, but a carefully designed funding system can take away obstacles for inclusive education and actively support it. Funding definitely is an instrument in making inclusive education go round.

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SECTION III
Knowledge Production

Perspectives on learning

16

Epistemology and Special Education

Gary Thomas

KNOWING

Epistemologists investigate questions of the variety:

- What is knowledge?
- Are there different kinds of knowledge?
- Are there good procedures for discovering knowledge?
- How can you know if you are wrong?

This chapter will examine some of these questions in the context of special education. There have been assumptions in the empirical evidence and rational arguments behind special education almost of a kind of special, privileged knowledge, and trust in the knowledge of special education has secured special education's reputation as a rational, sensible way of educating a portion of the population. But if one takes a questioning disposition to this knowledge, serious challenges to the legitimacy of special education can begin to emerge.

KNOWING IN EDUCATION AND SPECIAL EDUCATION

The knowledge that educators seek ranges across individual and social behaviour, economics, linguistics, the study of teaching subjects, and much more. Arguably, special education is even more complex: special educators have especially needed to confront issues concerning difference, measurement, assessment, special pedagogy and a range of other themes. The way that the community of inquiry in education, and special education, has reacted to this complexity differs. Inquirers in one tradition have tried to make education's inquiry similar to that of scientists studying chemistry or physics or biology, asking very precise questions and experimenting to discover the answers. Those in another, more recent, tradition suggest that we should behave more like anthropologists, infiltrating ourselves into educational cultures to observe in intricate detail what happens there. Yet others propose that we might behave more like historians, listening to the accounts and narratives of the people with whom we are concerned: students, parents, teachers. Still others contend that we might be eclectic and do all of these, depending on the kinds of questions that we want to pose.

The last point, about eclecticism, perhaps throws into sharper relief the real issue about the complexity of education – education is about a range of different issues and if we want to ask questions about these different issues we have to think seriously about the best ways of answering them. The basic questions are about what we are studying, and about knowledge, what it is, and how we come by it. Some people seem to have felt not only that they are sure about what there is to be studied in educational research, but also that they have cornered the market on finding the sunlit path to true knowledge about this subject. Other people aren't so sure, and it is this lack of certainty that has led to such interest in questions about what we are studying and

how we come by knowledge in education.

My aim in this chapter is briefly to examine the epistemology of special and inclusive education. First, I shall examine how epistemology can be thought about in this area. I shall then go on to look at the kind of knowledge held and promulgated by special educators and the means by which this knowledge is secured.

It is as well to begin this examination by trying to unpack 'epistemology' in the context of special education. When philosophers talk about epistemology, they take a particularly structured view, framing the study of knowledge around ontology (the study of what there is to be known), and methodology (the study of the methods by which we discover knowledge). Recently, though, this focused view has broadened in the social sciences and the humanities. Here, the philosopher-historian Michel Foucault has had a significant influence on the way that epistemology is considered. Indeed, it could be argued that his work has been the principal stimulus in the questioning disposition of which I spoke at the beginning of this chapter. In two of Foucault's works, *The Archaeology of Knowledge* (Foucault, 1972) and *The Order of Things* (Foucault, 1970), he makes it clear that knowledge is never constituted in objective terms but rather is defined in a particular place and at a particular time by sets of habits, rules and expectations about what can and cannot be said. The ways we think, and the things we know (or think we know) are, for Foucault, products of our cultural, institutional, professional and personal histories and the intellectual environments that those histories have framed. Foucault uses the words *episteme* and *archive* to describe these intellectual environments. McNay (1994, p. 66) puts it thus: 'Like the episteme, the archive is defined as the general condition of possibility – the system of discursive regularities – which determines what can and cannot be spoken in a given historical era'.

The key words here are not only 'episteme' and 'archive', but perhaps more importantly 'discursive regularities'. For Foucault, much of what defines ways of knowing lies in *discourse* – patterns of contact and communication – and the *discursive* is central for Foucault's analysis of knowledge. Discourse, in other words, defines what counts as knowledge, and epistemology – the study of what we know and how we know it – centres in the human sciences around cultural, institutional and personal communications, all of these being constructed in an historical context. The foregrounding of discourse thus suggests that knowledge is *located* socially and historically.

Foucault's analyses help one to understand that social structures – in our case special schools, special assessments and special pedagogy – far from being God-given are made by people acting intentionally. The interesting insight which Foucault provides is that the intellectual apparatus which has emerged ostensibly to add objectivity, humanity and disinterested 'science' to an analysis of social structures in fact does nothing of the kind. In the highly complex world of human beings and human relations, this intellectual apparatus does little other than provide in new words and garb what we already recognize and know. The real knowledge, in other words, lies in the discourses permitted by the cultures in which we live, albeit that these are given added legitimacy by being reframed in the context of special education in the language of science and in the 'officialese' of professionals. Philip (1990, p. 67) puts it thus: 'The normal child, the healthy body, the stable mind … such concepts haunt our ideas about ourselves, and are reproduced and legitimated through the practices of teachers, social workers, doctors, judges, policemen and administrators'.

This is all relevant for our examination of special education and its knowledge, for this knowledge displays particular characteristics that have changed according to the predominant discourses of the time (see also Reid & Valle, 2004; Thomas & Loxley, 2005). It is important to remember that special education is a product of

social and political frameworks – the ways people think at a particular time frame their views about what is good for children and how education should be made to happen. It is a product of Foucault's 'archive'. Remember that at one time, at the beginning of the 20th century, young children were separated from their communities and expatriated from Britain to Australia for a 'better life' (see Newman & Roberts, 1996). The people who made the decision to do this acted not out of spite or malice, but out of a genuine belief that this was the best thing to do for these children. Their knowledge, ideas and beliefs were constructed by the discourses of the time.

So, in examining the knowledge of special education it is worth looking briefly at the history of the subject and at the intellectual currents that appear to have shaped its development since its institutional beginnings. It is worth looking at the discourses that have moulded the field as it exists today.

The beginnings of organized special education happened in the 18th and 19th centuries, when schools for blind and deaf children were established, usually by philanthropists. But around the end of the 19th century, a sea change occurred in thinking. Assumptions about what education might be for and about what might make a child worthy of special education shifted. Around this time, a cluster of ideas was emerging which gave strength to the notion that not simply those with conspicuous disabilities – the blind and the deaf – should be educated separately, but that those who were less able could and should be educated separately, for their own benefit and for the benefit of the majority. Thus, although a philanthropic impulse had stimulated the establishment of the first special schools, an entirely different kind of thinking – and a different kind of knowledge – was behind the growth that happened from the beginning of the 20th century.

There was a new world-view, a new episteme in Foucault's terms, constructed out of some streams of thought that were developing at the time. Three movements dominated the thinking that might be said to have given rise to the knowledge that led to the expansion of special education in the 20th century. These were Social Darwinism, psychometrics and scientism, and I shall explore these, their consequences and their limitations, now.

SOCIAL DARWINISM

If one is considering the knowledge of special education one cannot underestimate the importance of Darwinism for the thinking of ordinary people at the end of the 19th century. Darwin's ideas were new and exciting and, after some resistance from the ecclesiastical establishment, had acquired respectability and status. The new status, however, gave credence also to some biological fictions, most notably the idea that for society it was important that the 'weakest' should be prevented from infiltrating the genetic stock. If degenerates and ne'er-do-wells were to mix and interbreed unhindered with others, the argument went, the inevitable result would be the degeneration of the stock of the race. Social Darwinism, as this school of thought came to be called, was responsible for much of the mindset which at that time promoted interest in special schools – promoted interest in different kinds of teaching for supposedly different kinds of children.

One should remember how powerful these ideas were at the time. They led to the popularity of eugenics, a school of thought about the improvement of the stock of the race through selective breeding. Eugenics was part of mainstream thinking – part of the archive – that had influenced even those who claimed to be part of the new Socialist movement. Even prominent socialist intellectuals such as Sidney and Beatrice Webb (see

McBriar, 1966) were persuaded by eugenic arguments. It was received knowledge that there should be constraints on the fertility of elements of the population, and the natural extension of the argument was that boundaries should be more firmly drawn around those elements that might disadvantage the majority. The consensus about the good sense embodied in eugenics in this climate of opinion is evidenced by the fact that at the end of the 1920s, 24 American states had passed laws enabling sterilization of elements of the population.

As a corollary, it is worth noting that Social Darwinism had its effects in a more general way upon popular thinking and popular knowledge. It was promulgated enthusiastically in Britain by the influential scientific polymath Sir Francis Galton, who in *Hereditary Genius, its Laws and Consequences* (1869), proclaimed that it would be perfectly possible to '… produce a highly gifted race of men by judicious marriages during several consecutive generations'. The futility ascribed to education in counteracting the effects of heredity in accounts such as this amounts almost to contempt. If education was not entirely useless, it was certainly of no benefit for the purpose of raising the achievement of the least able. The feeling of the intellectual establishment of the time is summed up by one of Galton's protégés, Karl Pearson, who at the beginning of the 20th century was able to claim that 'No training or education can create [intelligence] … You must breed it' (in Kevles, 1985). Clearly, such thought encouraged a view that intellectual strata should be separated and segregated for the purpose of such breeding. As a logical sequel, different kinds of education should be provided for the most and the least intelligent.

PSYCHOMETRICS AND THE NOTION OF INTELLIGENCE

Roughly concurrent with all of this, psychology was establishing itself as a discipline, and a new branch of psychological 'science' was developing: psychometrics. If intelligence could be accurately measured, it would be possible to sort and sift among children to determine how they should be placed according to the segregative thinking propagated by a eugenic mindset.

At the turn of the 20th century, Alfred Binet had developed the first mental tests in France, and in 1916, the American psychologist Lewis M. Terman developed what he called the 'intelligence quotient', or IQ, as a useable heuristic – a technology – for the explication of the mental age that Binet had been examining. This measuring technology, psychometrics, gave the promise of effectively calibrating levels of ability and sorting the population for the most and least intelligent. If this was possible, of course, it was possible also to separate out and educate differently children of differing levels of ability. Terman (1924, p. 336) had asserted that 'The first task of the school would be to establish the native quality of every pupil; second, to supply the kind of instruction suited to each grade of ability'.

It is important to note in parenthesis, though, that the feeling was not all one way, even at that time, about the benefits of psychometrics and the efficient separation according to strata of intelligence that it promised. The political scientist Walter Lippmann (1922) had published a series of articles in the USA in which he argued that intelligence testers cleaved to an erroneous dogma about the heritability of intelligence, and that 'Intelligence testing in the hands of men who hold this dogma could not but lead to an intellectual caste system'. The foresight of Lippmann was borne out by later events in the acceleration of special education provision. In the selective and segregative systems enabled by psychometrics were to be found precisely the

caste system predicted and feared by Lippmann.

In the UK, much of this psychometric (and eugenic) thinking was crystallized in the writing of Cyril Burt, who was appointed the first psychologist for London in 1911. Burt had great faith in the new science of psychometrics, and this faith together with an arrogant confidence in the idea that intellectual functioning showed a fixedness determined by inherited potential, gave stimulus in Britain to a segregative education system based on the categorization of the child. This was especially so as Burt was one of the principal architects of the 1944 Education Act insofar as it related to special education in Britain. Burt had officially advised the government thus: 'it is possible at a very early age to predict with some accuracy the ultimate level of a child's individual power' (cited in Hearnshaw, 1979, p. 115), and the 1944 Act subsequently constructed a highly segregative post-war education system with its 10 categories of handicap for which special schools would cater. The fact that Burt's work represented, as it was after his death discovered, a gross scientific fraud (see Hearnshaw, 1979) itself provides an interesting glimpse into the power of the discursive in influencing thought, and indeed distorting the processes used to arrive at knowledge.

Psychometrics lived (and still lives) in symbiosis with the notion of intelligence. Together, they gave credence from the early part of the 20th century onwards to assertions about the significance of intelligence in children's failure at school. Not only could natively endowed intelligence explain difference and failure, its method of assessment – IQ tests – could, it was asserted, accurately separate out those who would benefit from certain kinds of education. Intelligence, and the way it was studied and measured, provides a powerful case study for the dangers which inhere in a certain kind of epistemology – one which elevates certain kinds of supposedly empirical analysis and rational theorization – about teaching and learning.

SCIENTISM

A great deal of the success of the new discourse, with a faith in psychometrics and a confidence in the correctness of Social Darwinism, was related to the success of natural science as a powerful new force in inquiry. Then, at the turn of the century, the successes of science meant that the methods of the natural sciences were looked upon increasingly favourably by the intelligent layperson. The influential philosopher-sociologist Herbert Spencer was able to promote the notion, in a reification of science's methods that has come to be known as 'scientism', that the only reliable knowledge of the universe was that found in the sciences. (It is important to distinguish here between scientism and science. While the word 'science' is generally taken to mean the wholly legitimate use of particular methods for studying particular subjects, 'scientism' describes the more questionable use of the same methods for studying or thinking about a far wider range of subjects.)

And this has continued. For the best part of the 20th century, there has been the optimistic assumption that the path of progress in scientific knowledge would be a smooth one – that progress would follow naturally out of scientific advance, and science would broaden its virtuous ambit to advance and enrich study in fields other than the natural sciences. It was assumed that the methods of investigation that had been so successful for physics and chemistry would be appropriately used not just in those sciences, but also in social inquiry (I examine this topic in further detail elsewhere: Thomas, 2012). For many years, therefore, 'social scientists' emulated their peers in the natural sciences, in presumptions about the nature of knowledge, theoretical

advance, research design and the use of inference. Psychologists and sociologists adopted the epistemological and methodological clothes of physicists and chemists – and educators, in turn, copied psychologists and sociologists. The agglomerations of putatively scientific knowledge and technique represented in psychology and sociology came to assume an enormous importance in the growth of educational institutions, and in particular in the growth of special education.

Inquiry in education – and in special education the phenomenon has occurred to an exaggerated degree – has tended to follow the methods of science, or at least what has been taken to be those methods (see Thomas, 2007, for a critique). At the heart of these methods has been experimental study used to advance theory. It was assumed that theory would, refined and improved, go on to explain and predict more effectively, that theory would stimulate research, and theory and research hand in hand would inform practice. The model is deeply flawed for education generally, as I have tried to indicate elsewhere (see Thomas, 1997), and it has had particularly unfortunate effects in special education (Thomas & Loxley, 2007). Academic special educators during the 20th century regarded the theoretical products of the social sciences – Piagetian, psychoanalytic, psychometric and behavioural theoretical models – almost as a kind of pick'n'mix. The result has been, in the field of special education, an epistemic jumble, an agglomeration of bits and pieces from many and varied theoretical provenances, often contradictory in their tenets and widely different in their practical implications.

It is only of late that there has been recognition of the limits of supposedly scientific inquiry in determining the ways in which we should examine education. It has come to be recognized that in education, and in special education in particular, foci for analysis do not usually lend themselves to the analytical instruments borrowed from the major disciplines. A position increasingly taken of late is that far too much has been made of the potential contribution of these schools of thought, and that they have exercised a disproportionate influence on special education, on our understanding of why children fail at school, and on our prescriptions for action when they do. Too much has been invested in their significance. Their status as frameworks within which thinking can be usefully constructed has been overplayed and the extent to which practice can usefully follow from research generated within their parameters has been exaggerated.

Indeed, a theme of late 20th-century epistemology is that there are no certainties – and, more important, there are no special means of getting to knowledge about the human world. (This issue is also examined in Gallagher's chapter in this volume.) Special education forms a particularly interesting case study of this change of view. In the set of epistemological and ontological assumptions that are often summed up by the word 'paradigm', the traditional paradigm of special education – characterized, as I noted above, by scientism and separation – has had few notable successes. There is no body of research showing special education to have been more successful than mainstream education, despite the greatly increased resources directed to it (see OECD, 1994; Wang, Reynolds & Walberg, 1995). Children with similar difficulties educated in mainstream or special schools leave school with similar results. The knowledge that this is the case has been available since the early 1960s. As Johnson put it:

> It is indeed paradoxical that mentally handicapped children having teachers especially trained, having more money (per capita) spent on their education, and being enrolled in classes with fewer children and a program designed to provide for their unique needs, should be accomplishing the objectives of their education at the same or lower level than similar mentally handicapped children who have not had these advantages and have been forced to remain in the regular grades. (Johnson, 1962, p. 66)

Indeed, most of the assessments and pedagogies developed by special education have failed on mature evaluation to live up to the hopes their early use excited (see Thomas & Loxley, 2007). Despite the disappointing record, though, faith remains in the 'fix-its' of special education. Partly, this is because the discourse underpinning this faith – a discourse of diagnosis and supposed cure – has an enduring allure, an allure enriched by the epistemological lustre provided by association with the methods of science (see Thomas, 2013).

NEW METHOD: VALUING DIFFERENT KINDS OF KNOWLEDGE

Questioning has come both from inside special education and from the research community generally about the paucity of outcome from the knowledge produced by the traditional procedures of special education inquiry (see Gallagher, 2004). New methods have therefore come to be sought and tried. Qualitative methods have gained credibility as valid research tools in education and psychology and there are excellent examples of the use of such methods in critical analysis of special education (see, for example, Benjamin, 2002; Ferguson, Ferguson & Taylor, 1992; Johnston, 1985). While the genealogy of these methods is usually attributed in the methodological literature to the anthropologists and their emphasis on participant observation, it may be helpful to look more widely at their intellectual history.

The legacy of positivistic science when transplanted to a focus on human beings was that we should deny what we know, as people, and put faith in a certain kind of disinterested knowledge. Calls for recognition of the validity of other kinds of knowledge, resting in self-report (on the part of respondents) and self-knowledge (on the part of the researcher and practitioner) are novel in social science but not recent in philosophical terms, stemming from philosophical thought in the early 20th century. Hans-Georg Gadamer is credited with transforming the idea of inquiry from one in which an inquirer aimed to understand something in as disinterested and unprejudiced a way as possible to one where 'preconceptions or prejudices are what makes understanding possible' (Outhwaite, 1990, p. 25). These preconceptions and prejudices, these 'sentiments, imaginings and fancies', as Oakeshott (1989, p. 65) put it, are what go to construct our understanding of others. To deny their significance in making sense of other people – their utterances, feelings, fears and failings – is to ignore the most important research tool at our disposal. Until recently, the knowledge-base of special education self-consciously disavowed the sentiments, imaginings and fancies, rejecting as valid data anything that could not be judged to be at least notionally objective – anything that could not be counted.

Out of these changes has come a resurgence of interest in personal knowledge. More recently, the argument has been that we should trust in our own knowledge as people – trust in our own experiences and understanding of our emotions and our human experience. We have self-knowledge, and this is our principal tool in helping us to understand others. As the psychologist Joynson (1974, p. 2) put it: 'Human nature is not an unknown country, a *terra incognita* on the map of knowledge. It is our home ground. Human beings are not, like the objects of natural science, things which do not understand themselves'.

When trying to understand why students might not be succeeding at school, we each have to use our own humanity, recognizing our 'failings', our frailties, misunderstandings and prejudices. These 'failings', it increasingly seems to have been realized in the past 20 years or so, have to be used in our understandings of the predicament of others, and not 'controlled out' in our investigative procedures. There is not likely to be

discovered some special method for unearthing data about people nor some rational calculus for interpreting their trials and tribulations. The methods of a 'scientific' psychology or sociology have encouraged not only an illusory vision of a set of certain answers regarding human existence. They have led also to a garbled, two-dimensional discourse which has stripped from our study of people any of the recognition that we, as people, have ourselves of the plight of others.

It is perhaps too kind a judgement on 20th-century psychology to say merely that it has failed to take stock of and use such knowledge, for it is not as though psychologists have merely mislaid this kind of understanding. The process has been far more conscious and deliberate than that. It has involved an intentional casting-off of certain kinds of knowledge – the knowledge we have of other human beings which comes by virtue of our own membership of the human species – in the assumption that these kinds of knowledge would contaminate a dispassionate, disinterested understanding of others. And in doing this, a strange kind of professional and academic language has been encouraged. Straightforward understandings have often been puffed up into something to look impressive and 'scientific'.

The trouble is that this apparatus does not merely re-name and smarten-up old ideas. The real trouble is that the shining instruments of the social sciences add legitimacy to common-or-garden ideas and prejudices. The notion of a gradient of cleverness, for example, was given a shot of adrenaline by the scientific paraphernalia of assessment testing, converting it to the far more impressive-sounding intelligence quotient. Mental infrastructures have emerged to support these social structures – paradigms, theories, research methods, research findings – but it is increasingly recognised that these are less disinterested and less informative than was once assumed.

The changing mindsets of which I have spoken have taught all in education – practitioners, planners, parents, students, academics, researchers – to place less faith in the kind of knowledge once revered. The secure epistemic base that led to the segregative and pedagogic systems of the past has begun to give way. As the certainties associated with that epistemic base evaporate, new ideas have filled the void, and these have concerned less the deficit and needs-based thinking of the past, and more an agenda of rights. Ideals about equity, social justice and opportunity for all have come to be taken as a valid knowledge-base for special education. This is the new inclusive discourse – the new epistemology – within which changes to special education are being framed.

NEW DISCOURSES; NEW KNOWLEDGE

What then can be said in general terms about the knowledge of special education? First, one can remind oneself of the Foucauldian principle that such knowledge is located – located in the discourses of the time, and that these have been concerned with processes of institutional education designed to benefit the majority. A Foucauldian perspective also discourages a specifically methodological view of epistemology. In other words, we are encouraged to look beyond the 'usual culprits' of paradigm and research method, important though these are, in our understanding of knowledge and its production. In special education, a field that straddles the academic and the practical, much stress has been laid on the integration of the theoretical and the practical, and the ways in which the theoretical – and in turn the way that this theoretical knowledge has been constructed out of particular methods – has informed practice. This influence has certainly been

profound, as I have tried to indicate. However, a Foucauldian perspective reminds us that knowledge production occupies a far broader canvass, encompassing that which is constructed out of social, institutional and cultural discourse.

In the last third of the 20th century, this social, institutional and cultural discourse began to take a sharp turn away from the direction it had followed, certainly until the Second World War. After the War, the exposure of the horrific events to which eugenic thinking had led put paid to any resurgence of Social Darwinism. Simultaneously, there was a drift away from respect for authority, of whatever kind, and this included a more questioning disposition about the certainties provided by science. Greater openness in public life exposed the frailties of academics, doctors and others in positions of authority. The authority of the law, the church, the medical establishment, science and the state began to be freely interrogated and with such interrogation came an attenuation in the validity attributed to the knowledge of these authorities.

The political scene reflected these changes and one of the most visible manifestations of the more questioning approach to authority occurred in the USA in the civil rights movement of the 1960s. Discriminatory laws, traditions and customs came to be attacked as black people demanded the same rights as those enjoyed by whites. The stress on rights encouraged a similar set of rights-based demands among ex-special school students. Why, they asked, should a minority of students whom the mainstream finds it difficult to educate be forced to accept a different and more limiting education? It was the right of everyone to have an education in the mainstream, with all the opportunities that this conferred.

Decline in respect for authority showed itself particularly markedly in a falling-off in the automatic deference to the power exercised by professionals and other experts. It has given rise to an increase in parental voice and power in education. More assertive parents have asked what benefits accrue from many of the diagnoses proffered by professionals. They have questioned the wisdom of segregated education for their children. In particular, the definitive statements that were sometimes made by medics about the prognosis for particular children in countless cases proved to be inaccurate. The exposure given to these in an open and litigious society has dented the authority of the professional source and this too has resulted in a reduced confidence in the putative knowledge of professionals and experts.

Latterly an opening-up of knowledge has occurred that would have been unheard of even in the 1980s, culminating in calls for a hearing of the child's voice. As these various new voices have been heard, and as their speakers have gained in confidence, the equation of power in the construction of knowledge has shifted from expert to user. The culture of doctor-knows-best (or psychologist-or teacher-knows-best) has diminished substantially as new discourses – valuing openness and the knowledge that comes from everyday experience – have begun to be valued more.

CONCLUSION

The underpinning principles on which special education and special pedagogy are built rely for their status on kinds of knowledge and reasoning that have in the past three or four decades come under close scrutiny. They rely on notions that have been elevated by 'scientific' methodology and theory to something more than they really are. The great thinkers of disciplines from which special education has drawn (usually psychology) have built impressive theory that gave credibility and stature to particular, and often mistaken, ways of viewing

learning, viewing children and viewing the difficulties that they experience at school. Often, the 'knowledge' that has been constructed has distracted attention from more straightforward explanations for children's failure to thrive at school. More recently there has been a renewal of confidence in the knowledge of practitioners in understanding the failure of children at school. Simultaneously, as errors of the past have been recognized, the legitimacy of a discourse based in rights, equity and social justice has been accepted and has provided the way for a new epistemology, an inclusive epistemology, to guide education.

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Persistent Issues in Behavioral Theory and Practice

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PERSISTENT ISSUES IN BEHAVIORAL THEORY AND PRACTICE

Behavioral theories are based on the underlying epistemological model known as *logical positivism*. Positivism asserts that the only valid knowledge is that which is objectively observed. It is from this model that scientific theories of behavior are generated and, in turn, used to develop and apply technology whose primary goal is cost-effective, useful, and ethical behavior change (Fishman, Rotgers, & Franks, 1988). Behavioral theory has its roots in two orientations: Skinner's (1938) operant conditioning and Pavlov's (1927) respondent (classical) conditioning. Hull (1943), an early contemporary of Skinner, developed a systematic behavior theory that meshed together operant and respondent conditioning.

Behavior modification – a term believed to have first appeared in a chapter written by R. I. Watson (1962) – is the systematic application of learning principles and techniques to assess and improve individuals' behaviors. Two closely related terms are *behavior therapy* and *applied behavior analysis*. Behavior therapy is closely aligned with respondent conditioning and Wolpe's (1958) construct of reciprocal inhibition that formed the basis for systematic desensitization. It tended to be used by behavioral psychologists and psychiatrists who were concerned primarily with treatment in traditional clinical settings, such as a therapist's office, by means of verbal interaction (i.e., 'talk therapy'). Applied behavior analysis (ABA) tends to follow an operant orientation, and was popularized in 1968 with the founding of the *Journal of Applied Behavior Analysis*. ABA has been defined as a systematic, performance-based, self-evaluative method for changing behaviors. Although the three terms have been used interchangeably, Martin and Pear (2003) preferred the term behavior modification because it subsumes both behavior therapy and ABA.

The science of behavior modification has, arguably, made its most valuable contributions to education (e.g., Heward, Heron, Hill, & Trap-Porter, 1984; Sulzer-Azaroff, & Mayer, 1986). Skinner (1984) suggested that the most effective instructional practices are based on behavioral theory. Nevertheless, it still elicits strong reactions from educators who continue to savagely castigate and extravagantly praise its use. General educators tend to condemn behavior modification as being coercive and stifling internal motivation – a view expounded by Kohn (1993) in his book *Punished by Rewards*. Conversely, many special educators embrace behavior modification – perhaps since Itard's work with Victor, the wild boy of Aveyron – as an essential foundation of classroom management (Haring & Kennedy, 1996).

Ishaq (1996) suggested that the social relevance of behavior modification can only be acknowledged when the issues facing its use have been addressed. Some issues have been successfully resolved (e.g., guidelines for using schedules of reinforcement) while others continue to pose reoccurring and vexing problems (e.g., social validity, promoting generalization). It is impractical to address – even summarize – every issue related to behavior modification in education in a single book chapter. It would even be a daunting task to untangle

some of the complex issues within an entire book. Therefore, the purpose of this chapter takes a different tack. It begins with a brief historical overview of behavior modification in special education – the faction within education that has most embraced its use. This synopsis is followed by a discussion of four issues that have persisted despite previously receiving considerable attention, and that may be particularly relevant to the current state of special education practice. Two additional issues are then presented in more detail because of their controversial nature in terms of educational and clinical practices in behavior modification.

BRIEF HISTORICAL OVERVIEW OF BEHAVIOR MODIFICATION IN SPECIAL EDUCATION

The education of youngsters with disabilities has changed considerably throughout the years – ranging from neglect and ridicule to compassionate concern and integration (Winzer, 1993). Concomitant with these changes in social attitudes and emerging legislation (e.g., P.L. 94–142), new programs for children with disabilities, based on empirically-validated behavior modification techniques, were established in public schools.

ORIGINS OF BEHAVIORAL APPROACHES

Kauffman and Landrum (2009) traced the use of behavior modification by educators back to the late 1950s and 1960s. William Cruickshank and his colleagues developed a highly structured experimental public school program for brain-injured and hyperactive children in Montgomery County, Maryland. Norris Haring and E. Lakin Phillips developed a similar program to work with students with emotional disturbances in the Arlington, Virginia, public schools. Haring later collaborated with Richard Whelan who had previously developed a structured approach to teaching at the Southard School of the Menninger Clinic in Topeka, Kansas. Together, they developed a program at the University of Kansas Medical Center that included the direct daily measurement of behaviors.

Early applications of the behavioral approach were being reported by others in the literature. For example, Zimmerman and Zimmerman's (1962) study of how the use of systematic consequences reduced students' temper tantrums and refusal to write spelling words ushered in a plethora of behavior modification research. Perhaps the most extensive use of behavioral theory was by Frank Hewett (1969) who, in the mid-1960s, developed the engineered classroom that was based on the use of a token economy and special curricula as exemplified in the Santa Monica Project. Hewett also had an interest in using operant conditioning techniques to teach children with autism. Perhaps the most notable person to use behavioral approaches in the treatment of autism was O. Ivar Lovaas. His research focused on teaching children with autism language and daily living skills. His Early Intervention Program has generated much attention and some controversy.

APPLICATIONS OF BEHAVIORAL THEORY

A large body of research accumulated during the 1970s and early 1980s that focused on developing and validating the efficacy of various techniques based on operant learning principles. These techniques could be categorized as those designed to increase or decrease youngsters' behaviors. So much research has accumulated on these techniques that new empirical reports on their application have become rarer and even reviews of

each technique have become dated. In essence, their effectiveness has become 'established fact'.

Three of the most researched techniques for increasing behaviors have been behavioral contracting (Rutherford & Polsgrove, 1981), token economies (Kazdin & Bootzin, 1972; O'Leary & Drabman, 1971), and group-oriented contingencies (Hayes, 1976; Litow & Pumroy, 1975). Several techniques for decreasing behaviors have been the subject of extensive research: time-out (Brantner & Doherty, 1983; Rutherford & Nelson, 1982), response cost (Walker, 1983), overcorrection (Foxx & Bechtel, 1983), and various schedules of differential reinforcement (Jones & Baker, 1990; Lancioni & Hoogeveen, 1990; O'Brien & Repp, 1990; Whitaker, 1996).

PERSISTENT ISSUES IN BEHAVIORAL THEORY

This section presents four issues in behavioral theory and practice that have persisted despite receiving much attention. This approach is in contrast to trying to select only 'current' issues, because current issues may have persisted for decades. One such example is the issue of generalization. Over 35 years ago, Baer, Wolf, and Risley (1968) first discussed the notion that generalization must be specifically planned and rarely occurs spontaneously. In their seminal article nine years later, Stokes and Baer (1977) described a technology for programming generalization. Almost a decade later, Stokes and Osnes (1986) were reiterating those techniques. Around the same time, Rutherford and Nelson (1988) reviewed 5,300 behavioral treatment studies with children and adolescents and reached the conclusion that less than 2% addressed generalization and maintenance of educational treatment effects and less than 1% programmed for stimulus and response generalization.

The four persistent issues selected in this section were based on their relevance to the increasingly challenging behaviors displayed by children who attend public school: ethical ramifications of functional assessment, social validity, improving natural reinforcement, and momentum of compliance. Many of these topics, such as functional assessment, have been the topic of articles, chapters, and in some cases, entire books. However, the goal here was to extract one or two unique aspects of each issue that may explain why they persist to this day.

Feasibility and ethical ramifications of functional assessment

Functional assessment involves describing a problem behavior, identifying setting events that predict when it will and will not occur, identifying consequences that maintain it, developing hypotheses that describe the behavior, when it occurs, and what reinforcers (positive or negative) maintain it, and collecting observational data that supports the hypotheses (O'Neill et al., 1997). The results are used to develop a behavior intervention plan (Maag & Katsiyannis, 2006). Functional assessment has been used extensively to develop situationally appropriate interventions for students with developmental disabilities in special education settings (Dunlap et al., 1993; Dunlap, Kern-Dunlap, Clarke & Robbins, 1991; Kern, Childs, Dunlap, Clarke & Falk, 1994; Lalli, Browder, Mace & Brown, 1993; Northrup et al., 1994; Repp & Karsh, 1994; Sasso et al., 1992). It has also been used with students with mild disabilities (c.f., Reid & Nelson, 2002). Its use with this population in the era of full inclusion raises the issue of whether it can feasibly be implemented by general educators in mainstreamed settings.

Applications in general education classrooms.   Functional assessment has not been used widely used by general educators because it has been perceived as time-consuming, complicated, and multi-faceted (Larson & Maag, 1998). However, the issue may not be the ability of general education teachers to learn and implement functional assessments but rather if they can implement it in their classrooms and still manage the many tasks their profession demands. Preliminary results are encouraging. For example, Moore et al. (2002) trained three general education teachers to correctly implement functional assessments. However, no data was collected on the students' behaviors, nor were measures of treatment acceptability collected. Packenham, Shute, and Reid (2004) obtained similar results while also obtaining positive changes in the target students' behaviors. Admittedly, their approach was a truncated version of functional assessment. But that raises the question as to how streamline can functional assessment be made while still retaining its fidelity?

Larson and Maag (1998) developed the Functional Assessment Hypotheses Formulation Protocol (FAHFP) to address this very question. Combining elements of other checklists, interview, and observation forms, the FAHFP directs a teacher to independently operationally define a behavior, identify setting events, consequences, and functions associated with the occurrence of the behavior, and conducting a systematic observation of the behavior. The protocol culminates with a teacher generating hypothesis statements and formulating a functional analysis plan. Maag and Larson (2004) found that a general educator could independently use the FAHFP, collect direct observations of students' behaviors, and implement contextual and curricular modifications. In addition, treatment acceptability was quite high. Although these results are promising, this area of inquiry is still in its infancy and requires considerably more research.

Overruling results of functional analysis

Functional analysis is the second stage of functional assessment and involves testing a hypothesis by recording the target behavior during baseline and intervention (i.e., contextual or curricular manipulations) phases and graphing the results. Behavior support plans flow directly from functional analyses (Maag & Katsiyannis, 2006). It is a straightforward empirically-validated practice. However, Leslie (1997) questioned whether certain ethical principles would overrule the results of a functional analysis. His question was framed within the context of the least restrictive environment (LRE) in which treatments for individuals with disabilities should not be unduly restrictive. His concern is germane to educators given the inclusion zeitgeist.

Typically, a hierarchy of options – beginning with the least restrictive – guides the use of behavioral interventions. For instance, in the case of punishment, a response cost should be used first, followed by mild forms of time-out, and culminating in the use of seclusion, restraint, and overcorrection, respectively (Maag, 2004). However, Johnston and Sherman (1993) argued that a hierarchy of methods does not always exist for all individuals. Rather, it is assumed that results of functional analysis will be the most empirically valid and, consequently, ethically acceptable guide to implementing interventions.

Is this assumption valid? What if functional analysis reveals that an individual's self-injurious behavior (SIB) is maintained by attention and, therefore, its withdrawal (i.e., extinction) becomes a centerpiece of the behavior support plan? Extinction typically results in a temporary increase in the target behavior (i.e., extinction curve). So wherein does the restriction lie? During the initial stages of extinction, the individual theoretically could suffer more from the therapeutic restrictions of the functionally derived intervention than more restrictive punitive approaches that would perhaps eliminate SIB quicker.

Are experts in behavior modification the best individuals to develop and implement an intervention? Although functional assessment is empirically-based, it is not perfect and results vary, in part, based on the training and expertise of the individual using it. Therefore, should the wider community be involved to impose restraints on treatment decisions? Perhaps it would be a valuable exercise to bring the ideas of functional analysis to a wider audience – a proposal related to social validity.

Social validity

Issues surrounding social validity were first addressed over 30 years ago in a seminal article written by Wolf (1978). At its most basic level, social validity addresses whether a relevant audience (e.g., educators, mental health providers) find interventions in real-life settings to be acceptable in terms of their goals, methods, personnel, outcomes, and ease of integration into the consumer's current environment and responsibilities (Schwartz & Baer, 1991). This information is then immediately used to modify the current intervention, future applications, and outcome evaluation. Therefore, social validity evaluations, in this larger context, are not dependent measures but rather meant to supplement them.

A misapplication of this concept is illustrated by outcome evaluation in social skills training that had been characterized as an exercise in social validation (Elliott, Gresham, & Heffer, 1987). Namely, changes in targeted behaviors should predict a student's status on socially important outcomes using such measures as sociometric techniques, teacher ratings, and measures of academic performance (Gresham, 1983; Hughes & Sullivan, 1988). However, Schwartz and Baer (1991) suggested that social validity assessment is a defensive technique because it is oriented toward detecting unacceptability in any of three major areas: the goals of intervention, its methods, and its personnel. Therefore, social validity assesses the viability of an intervention and not its effectiveness.

The ongoing challenge in social validity is predicting why certain interventions are liked and others disliked by educators rather than simply being an early detection mechanism of acceptability/non-acceptability (Schwartz & Baer, 1991). To accomplish this goal, educators in a position to use interventions based on behavior modification need to be identified and reliably assessed. At issue here is not *what* to ask but *whom* to ask. For example, a school psychologist may find functional assessment to be a viable and integral component for developing a behavior intervention plan. This professional may not only have the expertise in functional assessment but also the time to conduct it correctly. A general education teacher, upon being asked, may agree that interventions are more likely to be effective if they are based on the function a behavior serves. However, once the teacher finds out how long it takes to learn functional assessment and the time required to conduct it correctly, she may rate it as extremely undesirable, given her other responsibilities.

There are other passive, but important consumers besides educators. For example, peers can be participants in enhancing entrapment for a student receiving social skills training or sabotage it as soon as school personnel are absent (McConnell, 1987). The point is that many people may be consumers of interventions other than the target child and that there are very little data indicating what turns them into either supporters or critics.

A related concern is how to collect information in a valid, reliable, and cost-efficient manner. The subjective nature of the assessments (e.g., interviews, questionnaires) and intrusion of the experimenter make this type of data difficult to interpret. What does it mean, for example, if a teacher circles 'pretty much' for the

level of satisfaction he or she had for an intervention? Instead, a wider range of observable behaviors should be sampled. For example, instead of an item that asks a respondent to rate how much a child 'fidgets', it may ask to rate how many times in a day a child handles materials not related to the lesson.

Improving natural reinforcement

For all the hundreds of empirically sound research reports validating the efficacy and scope of behavior modification, this technology has largely been ignored, or at least seriously questioned, by many educators (Axelrod, Moyer & Berry, 1990). Maag (2001b) described how many teachers resist using positive reinforcement because they erroneously view it as an artificial device tantamount to bribery rather than the naturally occurring phenomenon that exists in every classroom. He then posed the following question to these teachers: What would you prefer, to ignore the effects of reinforcement and run the risk of it haphazardly maintaining inappropriate behavior or program its use to increase appropriate behaviors? Teachers will not be able to seriously consider the implications of this question until behaviorists proffer strategies that teachers will accept – those that are socially valid (Fantuzzo & Atkins, 1992).

Perhaps the most socially-valid behavioral approach for teachers is through the use of natural reinforcement. The goal is to identify reinforcers that students can receive without the mediation of teachers and that contribute to making the natural consequences of behavior reinforcing (Horcones, 1992). Natural reinforcement has also been called intrinsic consequences because they originate in the behavior itself and are the natural or automatic results of responding (Vaughan & Michael, 1982). Conversely, extrinsic consequences originate in sources other than the behavior itself such as when a teacher verbally praises a student.

The irony is that because natural reinforcers are intrinsic consequences, they cannot be deliberately manipulated and, therefore, would appear meaningless to teachers. However, appearances can be misleading. It is possible for teachers to establish or eliminate the reinforcing function of natural consequences and make them more or less conspicuous (Horcones, 1992). Extrinsic reinforcement is still an important tool to shape, increase, and condition natural consequences as reinforcers. However, the ultimate test as to whether the majority of teachers will accept its use is when it occurs intrinsically – without so-called bribery or coercion.

Horcones (1992) recommended the following sequence in conditioning a natural consequence as a reinforcer. First, teachers should select a target behavior and identify the natural consequences of the selected behavior through the use of an A–B–C analysis (Maag, 2004). Second, an intrinsic consequence should be selected to be conditioned as a natural reinforcer. For example, the intrinsic consequences of typing could be the noise made by the keys on the board or the accumulating words appearing on the monitor. The latter consequence is the most educationally-salient and, consequently, should be the one conditioned as the natural reinforcer. Third, intrinsic consequences should be identified that are easily observed by a student. For example, the intrinsic consequences for a student singing in a chorus are hearing herself singing the same words in the same volume and key as the rest of the group. Therefore, a teacher may first condition, as a natural reinforcer, the consequences of singing the same words because it is the easiest for the student to observe followed by singing the right volume and finally the right key – the latter being the most difficult to discriminate. Fourth, the teacher should arrange the conditions so that the intrinsic consequences are easily

observable. For example, a teacher could point out and describe the correct sequence a student used to arrive at the solution to a division problem. The final step is for a teacher to select appropriate back-up reinforcers.

There are several features of natural reinforcement that teachers should find appealing. First, it may be easier to shape students' behaviors because this type of reinforcement occurs immediately and is simultaneously available to all students. It is impossible for even the most devoted behaviorally-oriented teacher to match the frequency and breadth that intrinsic contingencies offer. Second, intrinsic consequences may bring a student's behavior under the control of natural discriminative stimuli. This type of entrapment is an essential ingredient for promoting generalization. Third, natural reinforcement is always individual-specific. It is an oxymoron when teachers say 'I've tried reinforcement and it doesn't work'. They are actually lamenting the difficulty finding consequences students find reinforcing. The time spent trying to accumulate a large variety of external reinforcers can be better spent promoting natural reinforcement.

Momentum of compliance

The metaphor of behavioral compliance is a way to describe two independent dimensions of behavior: (a) rate of responding established and maintained by contingencies of reinforcement and (b) resistance to change when responding is in some way challenged or disrupted. The goal is to establish desirable behaviors that persist through changes in contingencies from external to natural reinforcement. The process begins with 'momentum' being a type of *discriminated operant* that follows a fairly classic A–B–C model (A = antecedent, B = identified response class, C = contingencies of reinforcement). It proceeds when a teacher uses a multiple schedule of reinforcement to present two or more distinctive stimuli successively – in regular or irregular alteration – for predetermined durations.

Behavioral momentum may also be applied to the phenomenon of resurgence – the occurrence of an extinguished target behavior once reinforcement has been terminated for a replacement behavior. It is different from spontaneous recovery that refers to the reoccurrence of a behavior that has been extinguished but without any functional alternative being reinforced. Shahan and Sweeney (2011) stressed the importance of resurgence – especially when treating children with developmental disabilities. For example, a student may engage in head-banging as a way to obtain teacher attention. This behavior would be extinguished and a functional alternative, such as calling the teacher's name, reinforced. However, if reinforcement for calling the teacher's name became too intermittent or nonexistent, head-banging may re-emerge. They developed a model for understanding resurgence drawing from Bouton's (2004) idea that the effects of extinction are situation specific and that a behavior trained in one stimulus context and extinguished in a different context will reappear when the original training context is presented again. Behavioral momentum plays a role because the decreased responding during extinction disrupts reinforcement during a stimulus response chain that otherwise maintains behavior.

From a practical standpoint, Maag (2001a) described how behavioral momentum can be used as an intervention for managing students' resistance. The process begins by instructing a student to engage in a behavior that she wants to perform (i.e., high-probability behavior). The student is more likely to comply with the instruction because she finds the activity reinforcing in itself. For example, giving a student the direction, 'Draw whatever you want', may be more reinforcing than the behavior specified in the direction, 'Write the

answers on the math worksheet'. Once the student is compliant with the first direction, then a teacher can instruct the student to engage in a low-probability behavior such as writing answers to math problems. The idea is to build momentum toward compliance by first getting the student to perform a series of desired behaviors. Rhode, Jenson, and Reavis (1995) developed easy-to-follow teacher guidelines for implementing behavioral momentum.

Nevin (1992a, 1992b) conducted two laboratory studies in order to refine the stimulus-reinforcer relation that characterizes behavioral momentum. He concluded that resistance to change depended on the relative, rather than the absolute, reinforcer rate in the presence of a stimulus. The implication of his studies for educators is that student resistance to following directions depends on the reinforcer rate not only within the classroom but also outside of it. Therefore, educators should identify both proximal and distal reinforcement contingencies to use behavioral momentum effectively.

SOME CONTROVERSIAL ISSUES IN BEHAVIORAL THEORY

To professionals outside of the field of behavior modification, any behavioral issue may seem controversial. For example, Maag (2001b) described how some individuals still find the concept of positive reinforcement to be controversial. However, controversial issues also exist within a given discipline and behavioral theory is no different. A traditional behaviorist paradigm asserts that behaviors can be described scientifically without relying on internal physiological states or subjective constructs such as the mind. Debates between behaviorists and cognitive psychologists have largely been laid to rest with the advent and popularity of cognitive-behavioral theories (Kalodner, 2011). However, the same cannot be said for the study of emotions – or affect – and its place within behavioral theory. Similarly, stage theories of human development such as those espoused by Piaget, Freud, Maslow, and Kohlberg typically are not associated with behavioral theory and, in fact, have been eschewed. However, the concept of 'behavioral cusps' may provide an alternative to traditional developmental theories that rely on principles of behavior to describe movement from one aspect of life to another. Consequently, the issues of studying emotions and behavioral cusps are presented here in somewhat greater detail in order to understand their potential role and controversy in behavioral theory and practice.

Studying emotions

The topic of emotions cannot be discussed without including cognitions – neither of which is typically thought of as under the purview of behavioral theory. The relation between emotions and cognitions has been debated since Aristotle and continues to the present. There are two main opposing positions in this debate: cognitively-oriented emotion theorists who hold that cognitions (i.e., cognitive appraisals) are necessary for emotions (Lazarus, 1984) and independent systems theorists who assert that cognitive appraisals are not causally necessary for emotions and that they are independent of each other (Zajonc, 1984). The argument is not so much dichotomous – few would deny that cognition and emotion function conjointly – as it is programmatic (i.e., understanding how the two interact).

It has not been easy to behaviorally study emotion because it tends to be an ambiguous and subjective term that cannot be reliably observed until the specific behaviors within the category are operationally defined. At its simplest level, Skinner (1989) believed that the meaning of an emotional term (e.g., anxiety) resided in the

functional relation between antecedents and consequences. For example, a student who said 'I feel anxious' would require identifying setting events (e.g., giving a speech in front of the class) and consequences (e.g., peers yawning, drawing pictures, writing notes, or talking amongst themselves).

Although Skinner's approach has been commended as providing a needed opening for the behavioral study of emotion, it has also been criticized as being limited and unproductive (Friman, Hayes & Wilson, 1998). For example, knowing that an antecedent (giving a speech) elicits a verbal behavior ('I feel anxious') or that a consequence (peers yawning) exists does not help with prediction and control of the phenomenon called emotion – two of the fundamental goals of behaviorists.

An expanded view of emotion.   Friman et al. (1998) provided a conceptualization of emotion (using the example of anxiety) that – unlike Skinner who believed its study was theoretically and practically unnecessary – helps understand emotional problems characteristic of several anxiety disorders (e.g., obsessive-compulsive disorder, panic disorder with agoraphobia, posttraumatic stress disorder). They discussed four points that make the study of emotion relevant.

First, language-able humans have the ability to draw relations between events and that it is straightforward to demonstrate that neutral stimuli can acquire discriminative functions indirectly with no explicit training. That is, a child, in the presence of one stimulus, taking out a piece of paper, learns to select an arbitrarily related stimulus, grabbing a pencil, then is trained unidirectional relation will lead to a derived bidirectional relation in which grabbing a pencil leads to taking out a piece of paper without any direct training. This simple process can be observed in children as young as 16 months old (Lipkens, Hayes, & Hayes, 1993). Many other relations can be learned, applied arbitrarily to stimulus events, combined, and transferred into networks of stimulus relations of incredible complexity (Dymond & Barnes, 1996). Transformation of stimulus functions provides a behavioral approach for studying emotion and other private events (Friman et al., 1998).

Second, private events can readily acquire discriminative functions. There is some research indicating that generalized responding to stimuli with discriminative function spreads via stimulus generalization to novel stimuli resulting in large but vague relational categories of responses (Fields, Reeve, Adams, & Verhave, 1991). In addition, events in relational classes spread with these stimulus generalization effects. Emotions may become part of the same relational class (DeGrandpre, Bickel, & Higgins, 1992).

Third, anxiety disorders seem to occur with little apparent direct learning or that the amount of direct learning is extraordinarily out of proportion with the amount of responding. It is difficult to examine emotions because they are influenced by indirect relations between events and public and private responses to public and private events (Friman et al. 1998). For example, high levels of anxiety may be experienced by a person because of repeated public and private events involving the process of stimulus generalization, derived relational responding, and transformation of stimulus function.

Fourth, the primary function of anxious behavior is experiential avoidance. Early in life, humans learn a myriad of strategies (e.g., vigilance, withdrawal) for avoiding events (e.g., pain, danger; Friman et al., 1998). As verbal skills develop, their responses to aversive events become more verbal. For example, a child at an amusement park who sees the speed at which a rollercoaster travels (event) may say 'I'm afraid' (response). Through a transformation of function, the response (fear) may become aversive, resulting in two instances of

negative reinforcement: the event (rollercoaster) and the response to it (fear). Therefore, humans, unlike animals, can exhibit experiential avoidance whose primary function is to reduce or eliminate private events such as anxiety or fear (Hayes, Wilson, Gifford, Follette & Strosahl, 1996).

Implications for practice

The typical treatment for emotional-related problems such as anxiety disorders is to repeatedly expose the person to the feared stimulus while engaging in incompatible behaviors (e.g., relaxation) to extinguish the maladaptive avoidance response class. The belief is that extinguishing overt reactions to the feared event or object causes a reduction in private responses such as negative self-talk and emotional overreaction. However, taking into account an expanded view of emotion, treatment would necessarily involve exposure to the private events as well as the external stimuli. The goal would be not only to have a person master being in the presence of a feared event or object but also be free of thinking about or feeling fear. Acceptance and commitment therapy (ACT) is a behaviorally-based approach that focuses on exposing a person to their private verbal events as a way of weakening them (Levin & Hayes, 2011).

Behavior cusps as an alternative to developmental theories

Numerous theories have been put forth to describe, explain, predict, and guide human development: Freud's psychosexual stages, Piaget's cognitive-developmental stages, Kohlberg's stages of moral reasoning, and Maslow's hierarchy of needs, are some of the most well-known. Each of these theorists hypothesized an invariable set of emerging stages that reflect a progression of various intellectual abilities, discriminations, conflicts to be resolved, or products. Children are believed to traverse through these stages to adulthood somewhat analogous a train beginning, stopping at various stations, and eventually ending its journey on a relatively linear path.

Almost every field of psychology endorses, or at least accepts, developmental theories except behavior modification. The closest behavioral theorists come to developmental theory is their basic analytical and empirically-validated behavior-shaping contingencies that are irrespective of any theoretical lifespan patterning (Maag, 2005). The issue for behaviorists is whether there is any systematic pattern to these contingencies. Authors of some college textbooks believe it is possible to discern these types of patterns across the lifespan (e.g., Novak, 1996; Schlinger, 1995). The question is whether these conceptualizations have meaningful implications for behavior analysts. Rosales-Ruiz and Baer (1997) believed they did and coined the term *behavioral cusps* to explain them in an analytic fashion.

A pragmatic concept of behavioral cusps.   A behavioral cusp refers to any behavior change that results in a child's behavior coming into contact with new contingencies that have more far-reaching consequences than the initial ones. The previous discussion on emotion provides an extreme example of the complexity and variety of this process. But within the current context, a cusp is a special instance of behavior change in which the next stimulus in a chain portents a shift in the entire sequence. In other words, a cusp (i.e., behavior change) has an important consequence for a child beyond the initial change it produces (Rosales-Ruiz & Baer, 1997). Grant it, every behavior change results from antecedent changes in interaction between a child and his environment. What makes a behavior change a cusp is that it exposes a child's repertoire to new

environmental contingencies (i.e., antecedents and consequences) that either maintain or destroy those contingencies.

Rosales-Ruiz and Baer (1997) used the context of a baby learning to crawl to illustrate this process. A baby in motion will have increased access to the environment and its contingencies. She can increasingly acquire reinforcing objects, activities, and interactions with family members, but still encounter stumbling blocks (i.e., punitive consequences) – all of which potentiate subsequent stimulus-response chains that shape the scope and breadth of future interactions. Any turning point in the sequence, such as the child walking (i.e., becoming mobile), would be considered a behavioral cusp.

The previous example does not deny the development of many small sequential skills culminating in crawling. Task analysis has long been a mechanism with which behaviorists operationalize shaping (Maag, 2005). The point is that, unlike traditional stage theorists who assume new challenges will suddenly appear, behaviorists observe that each subtask opens the child's world only to the next subtask in a perpetually changing environment. A cusp can be created either by changing one behavior or an entire response class.

Consequences and behavior change.   Similar to stimulus control, the concept of cusps emphasizes how consequences of behavior shape whether certain individuals find stimuli salient. Cusps can either be simple such as asking a question to get access to information or complex such as reading. However, if reading had little relevance (i.e., consequence) beyond the act of reading, it would not be a cusp. The goal would then be to bring reading under the control of contingencies so it leads to broader changes such as the ability to access a dictionary to look up the definition of a word.

Children without disabilities get through many cusps when interacting with their environments, usually through widespread fundamental processes such as imitation and spoken language. They acquire self-regulation skills through prior cusps. Children with developmental disabilities do not get through as many cusps that become problems that attract special education services. The point is that cusps can vary in size, particularly in the length or intensity of their teaching programs, yet have similarly important consequences for what can happen next. The importance of cusps is defined by the degree of behavior change outcomes behaviors produce rather than their complexity. Therefore, teachers may begin to make a list of cusps, chunk them together, and teach the behaviors that produce them. Teaching reading to see its consequences fits the cusp concept whereas awaiting mature skeletal growth does not.

CONCLUSION

There are numerous issues facing behaviorally-oriented educators. Some of those persistent and controversial issues were described in this chapter. They provide central challenges for effective behavior modification with students with disabilities who are educated in a wide range of settings. Students with disabilities who are fully included in general education classrooms require unique interventions that can be tailored to this setting. Acceptance of behavioral techniques for these students requires an increasing emphasis on making functional assessment easy to use, educating teachers on the use of natural contingencies, and learning how behavioral momentum can increase compliance. None of these approaches will be accepted in the absence of social validity. In essence, behaviorists need to enlist the support of educators and show them the practical value of such principles and techniques. Behaviorists have also provided a working model for dealing with emotions

and developmental transitions – both of which are salient to educators.

One of the trends in special education has been to move away from traditional behavior modification and blend it with more constructivist approaches. This eclecticism, although popular, diverts attention away from empirically-based interventions for which behaviorism is at its core. As a result, some of the great strides behavior modification has made, as typified in the issues described in this chapter, are largely ignored or sidetracked into rhetorical debates between positivists and postmodernists. Behaviorists need to go beyond this distraction and present principles and techniques to teachers in an easy-to-understand user-friendly manner. Once teachers experience the effectiveness of behavioral techniques first hand, they are more likely to use them in the future. In essence, their successful use becomes a positive reinforcer for their subsequent use, thereby expanding educators' foundational understanding and willingness to address current and future issues.

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18

Sociocultural Views of Learning

J. S. de Valenzuela

Current conceptualizations of sociocultural theory draw heavily on the work of Vygotsky. However, it would be erroneous to limit understanding of this important influence in educational theory, thought, and practice to the works of one individual. This is a rich area of research and theory, which has had, and will continue to have, a significant impact on the field of special education.

Sociocultural theory attempts to provide a complex description of the dynamic contexts in which and the processes through which learning and development take place. Cognitive development is seen as emerging as a result of interactions within a cultural and historical context, rather than unfolding in a biologically-driven sequence. In this view, learning is seen as leading, or fostering, cognitive development. Sociocultural approaches emphasize the active bidirectional interaction of individuals with their environments and with others around them and the changes in these relationships over time.

IMPACT ON SPECIAL EDUCATION

Many of the innovations based on sociocultural theory are not specific to special education. Rather, they have been developed within the field of education as a whole and adapted to the diverse instructional environments where students with disabilities are educated. Sociocultural theory has been especially influential in the areas of pedagogy, language and communication, and assessment. The zone of proximal development (ZPD) is perhaps the most well-known pedagogical construct and is related to several other instructional innovations, such as scaffolding, joint productive activity, and instructional conversation. These areas will be addressed later in this chapter. Sociocultural theory also provides a much needed perspective on larger instructional reforms, such as the movement toward standards-based curriculum and accountability measures, the debate about the best educational setting for students with disabilities, and the adoption of instructional methods from one context to another, without grounding such methods within the local culture and community.

HISTORY OF SOCIOCULTURAL THEORY

Sociocultural theory is generally considered to be based in the work of Vygotsky, a prominent psychologist who lived and worked in the Soviet Union in the early years of the 1900s. Vygotsky died in 1934, at the age of 38, having worked in the field of psychology for only 10 years. According to Bozhovich, one of his former students, his theory 'never achieved finished form' (1977, p. 5). Due to the political context in the Soviet Union at the time, much of Vygotsky's work was suppressed from the mid to late 1930s until the 1950s (van der Veer & Valsiner, 1994). However, development of sociocultural theory, or cultural-historical theory as it is also known, continued in the Soviet Union through the work of Vygotsky's colleagues and former students.

In the United States, Vygotsky's work was largely unknown until the abridged English translation of

Thought and Language (Vygotsky, 1962), followed by an edited compilation of portions of several different works, entitled *Mind and Society* (Vygotsky, 1978). These publications sparked great interest and had a profound impact on the development of educational theory in the United States, although not without criticism of the selection, editing, and translation of these early works (Gillen, 2000; van der Veer & Valsiner, 1994; van der Veer & Yasnitsky, 2011). Although a good portion of Vygotsky's work was directly related to the development of individuals with disabilities (Kozulin & Gindis, 2007), especially those with moderate learning difficulties and sensory impairments, his publications related to disability that are available in English (e.g., Rieber & Carton, 1993) have not had a significant impact on special education. In 1987, the first of six volumes of collected works by Vygotsky was published and the educational community began to have access to a greater range of Vygotsky's work. As more of Vygotsky's original corpus becomes better known, in particular Volume 2 of the collected works, *The Fundamentals of Defectology* (Rieber & Carton, 1993), those aspects of sociocultural theory that pertain directly to special education may begin to have greater impact.

KEY ASPECTS OF SOCIOCULTURAL THEORY

Vygotsky is perhaps best known for his general genetic[1] law of cultural development:

> We can formulate the general genetic law of cultural development as follows: every function in the cultural development of the child appears on the stage twice, in two planes, first, the social, then the psychological, first between people as an intermental category, then within the child as a [sic] intramental category. This pertains equally to voluntary attention, to logical memory, to the formation of concepts, and to the development of will. (Rieber, 1997, p. 106)

According to Kozulin (1990), Vygotsky's primary objective 'was to identify specifically human aspects of behavior and cognition' (p. 4) via a methodology termed *genetic analysis*. He focused on several different domains of development: human evolution (*phylogenesis*), development of human cultures (*sociocultural history*), individual development (*ontogenesis*) and development which occurs during the course of a learning session or activity or very rapid change in one psychological function (*microgenesis*) (Wertsch, 1991). While genetic analysis involves the examination of the origins and processes of development of higher mental processes within all of these domains, the most common foci of current educational research are ontogenesis and microgenesis. Wertsch and Tulviste (1992) interpreted Vygotsky's concept of the social origin of higher mental functioning as fundamentally distinct from how cognition has been traditionally viewed, as a function of the individual. They argued that 'one can speak equally appropriately of mental processes as occurring *between* people' [italics in original] (p. 549) and that 'his [Vygotsky's] view is one in which mind is understood as "extending beyond the skin." Mind, cognition, memory, and so forth are understood not as attributes or properties of the individual, but as functions that may be carried out intermentally or intramentally' (p. 549). Vygotsky emphasized the importance of 'mediated activity' (1977, p. 71) in the development of higher psychological functions. He identified the potential of both technical/physical tools (directed externally) and psychological tools (directed internally) as mediational means (John-Steiner & Mahn, 1996). However for Vygotsky, psychological tools, particularly language, were of primary concern.

The above is a brief summary of current Western interpretations of Vygotsky's principle thesis. Many of the aspects of Vygotsky's work described above continue to figure prominently in current conceptions of sociocultural theory. However, it must be remembered that limited access to Vygotsky's work has led to

differences in interpretation (Mahn, 1999) and that sociocultural theory has continued to develop over time. One way of understanding this process is from a sociocultural lens: as Koshmanova (2007) argued, interpretations of Vygotsky's work are shaped by the authors' 'cultural, communitarian attitudes, and personal choices' (p. 62). And as new researchers and theoreticians have joined the dialogue, they have come with their own intellectual histories and have grounded their studies and theoretical formulations in different readings and interpretations of Vygotsky's work. This transactional perspective on the continuing development of sociocultural theory recognizes that it is incorrect to use 'sociocultural theory' and 'Vygotsky' synonymously.

Although Vygotsky is often credited with developing sociocultural theory, Yasnitsky (2011) stressed the collaborative nature of his work with multiple individuals, including Leontiev and Luria. Even prior to Vygotsky's death, Leontiev, along with other researchers including Bozhovich, Zaporozhets, and P. Zinchenko, began shifting their focus toward physical or technical tools as mediators, rather than continuing Vygotsky's emphasis on psychological tools. Some, such as Kozulin (1986), see this focus on physical tools as a major divergence between sociocultural theory and the development of what would become known as the 'psychological theory of activity' due to its focus on action and activity. However others, such as Davydov and Zinchenko (1989), see this shift in focus as part of the ongoing development of sociocultural theory. This difference in perspective continues to play a role in ongoing theoretical debates.

RELATIONSHIP TO OTHER MAJOR THEORETICAL APPROACHES

Sociocultural theory and constructivism are often confounded, which is problematic. A number of distinct theoretical positions can be characterized under the umbrella term of constructivism. For example, psychological constructivism, historically linked with Piaget, can be differentiated from social constructivism (Cobb, 1996). While some authors position sociocultural theory within social constructivism, others do not. This conflict in terminology use, as well as identified areas of significant difference between constructivism (especially psychological constructivism) and sociocultural theory argue for avoiding the interchangeable use of 'sociocultural theory' and 'constructivism.'

As previously discussed, sociocultural theory positions social, rather than individual, processes as primary in the development of higher mental functions. Cole and Wertsch (1996) illustrated this focus on social processes and the importance of context in the following:

> Because what we call mind works through artifacts, it cannot be unconditionally bounded by the head nor even by the body but must be seen as distributed in the artifacts which are woven together and which weave together individual human actions in concert with and as a part of the permeable, changing, events of life. (p. 253)

This tenet leads to several related distinctions between sociocultural theory and constructivist perspectives. While psychological constructivists attend to individual processes and socioculturalists to social processes in development, Cobb (2000) elaborated a third position, that taken by social constructivists, where 'equal significance is attributed to individual and communal processes with neither being elevated above the other' (p. 279). Differing perspectives on the relative primacy of social versus individual processes in development parallel differences in the focus of analysis. While the focus of sociocultural analyses 'typically view individuals as participating in broader sociocultural practices' (Cobb & Yackel, 1996, p. 185), constructivists typically take the individual as the unit of analysis. In sociocultural theory, learning is said to lead development. In contrast,

psychological constructivist approaches focus on developmental readiness for learning. Vygotsky's (1977) assertion that 'the first use of tools immediately repudiates the notion that development represents the unfolding of the child's organically predetermined system of activity' (p. 73) appears in direct opposition to Piaget's notion of stages of development. Clearly, genuine differences of position do exist between sociocultural theory and differing constructivist approaches.

CURRENT CONCEPTIONS OF SOCIOCULTURAL THEORY

As additional works by Vygotsky and other sociocultural theorists from the former Soviet Union have become available in English, some aspects of sociocultural theory, as originally interpreted in the US and Europe, have been reconsidered. This has prompted clarification of certain aspects of Vygotsky's original propositions, development of several somewhat distinct traditions within sociocultural theory, as well as attempts to reconcile divergent perspectives, such as socio-historical and activity theory. There is a growing tendency for Western socioculturalists to incorporate perspectives from Dewey and Mead. Others suggest attempting to reconcile aspects of Piaget's theoretical work into a sociocultural perspective.

While many educational theorists work currently within the sociocultural perspective, some have named newer developments within this lineage 'Cultural Historical Activity Theory,' or CHAT (Cole & Engeström, 1993). The development of CHAT is most notably associated with Yrjö Engeström and Cole who, according to Williams, Davis, and Black (2007), now commonly reference this perspective as 'third generation CHAT.' Implicit in this term is the lineage of CHAT from sociocultural (or socio-historical) theory as linked with Vygotsky, through Activity Theory developed by Soviet Psychologists, most notably Leontiev, to current perspectives, which incorporate multiple activity systems and explore boundaries of and across systems (Williams et al., 2007). CHAT may be seen as an extension of sociocultural theory that posits 'object-related practical activity as the proper unit of analysis' (Roth & Lee, 2007, p. 189), rather than privileging psychological tools and social processes, as in traditional sociocultural theory. Roth and Lee stated that 'CHAT addresses the troubling divides between individual and collective, material and mental, biography and history, and praxis and theory' (p. 191). They additionally argued that CHAT is becoming increasingly well-cited in the research literature, a point that is supported by the recent publication of three edited books: *Activity Theory in Practice: Promoting Learning across Boundaries and Agencies* (Daniels, Edwards, Engeström, Gallagher, & Ludvigsen, 2010), *Learning and Expanding with Activity Theory* (Sannino, Daniels, & Gutiérrez, 2009), and *The Transformation of Learning: Advances in Cultural-historical Activity Theory* (van Oers, Wardekker, Elbers, & van der Veer, 2008). Within this developing perspective, each researcher or group of researchers has a unique focus, analytic framework, and theoretical perspective, as well as sharing certain fundamental similarities. Sawyer (2002a, 2002b) suggested that some of these differences stem from (a) differing perspectives on the appropriate unit of analysis and (b) hypothesized relations and interactions between individuals and the social context. The latter refers to the extent to which individuals can be separated from the sociocultural context, both in reality and for analytic purposes, as well as the directionality and mechanisms of influence.

Although critically important, debate at this level of theory has not yet significantly impacted special education. For example, none of the chapters in the three edited volumes listed above deal directly with special

education, although two chapters in the Daniels et al. (2010) volume arguably relate to some extent to individuals with disabilities, with one examining a higher education Department of Physiotherapy Education (Virkkunen, Mäkinen, & Lintula, 2010) and the other the interactions between an elderly woman with mobility difficulties and her paid caregiver (Nummijoki & Engeström, 2010). The predominate impact on special education has come from more general understandings of sociocultural theory, as defined at the beginning of this chapter. Given that the study of individuals with disabilities had a significant influence on the original development of sociocultural theory, it is reasonable to hope that the field of special education could have a reciprocal influence on further refinement of sociocultural theory.

MAJOR INTERPRETATIONS OF SOCIOCULTURAL THEORY IN SPECIAL EDUCATION

Instructional approaches

When considering instructional approaches from sociocultural perspectives, it is vital to remember that sociocultural theory addresses the development of higher psychological processes. Therefore, the focus for instructional activities under a sociocultural framework should be on development, rather than simply skill attainment. This is especially critical in special education, which has traditionally relied on reductionistic, transmission-oriented instructional models. Indeed, Vygotsky compared much of the education of students with disabilities, especially those with intellectual disability, to animal training and argued against 'the effort to limit the entire education of severely retarded children to the training of automatic, reflective habits of movement' (Rieber & Carton, 1993, p. 216). He decried that 'obedience is the first demand made of such children. The automatic performance of useful habits becomes the ideal of all education' (p. 216). He advocated for education that recognizes the role of social relationships in the development of cognition and related concerns about the viability of segregated settings in fostering such necessary social interactions, writing that 'the special school by its very nature is antisocial and encourages antisocialism' (Rieber & Carton, 1993, p. 85). Vygotsky contended segregated education imposes 'underdevelopment in the social sides of behavior as well as underdevelopment in the higher psychological functions, which are formed as social behavior develops' (Rieber & Carton, 1993, p. 256). The following instructional approaches, especially when employed within inclusive settings, foster the cognitive development through social interactions.

Zone of proximal development.   Like all other aspects of sociocultural theory, the ZPD is open to interpretation. According to van de Veer and Yasnitsky (2011), this concept was developed during the final stage of Vygotsky's life and much of what he wrote about this has still not been fully translated into English. Regardless, it is one of the most well-known aspects of sociocultural theory (del Río & Álvarez, 2007), especially in Western educational contexts.

   In general, the ZPD refers to areas of developing, but still immature, cognitive functions, which can be identified through tasks which children can only accomplish with some kind of support or assistance from another, more capable, person. Chaiklin (2003) emphasized that the ZPD 'is not a property of the child … but simply an indication of the presence of certain maturing functions, which can be a target for meaningful, interventive action' (p. 43). Therefore, intervention should be focused on assisting the individual's transition to a higher level of development, not on the acquisition of specific skills. This last point differentiates

instruction based on the ZPD from transmission models of instruction that also utilize interaction with others (i.e., a teacher). The notion of the ZPD also emphasizes another key aspect of sociocultural theory, that development occurs within sociocultural contexts that are mutually constructed by students and teachers; this differs from teacher centered instructional models.

Scaffolding.   Another key aspect of sociocultural theory is the role of mediators (i.e., psychological or technical tools) in the development of higher psychological functions. Scaffolding can provide such mediation. As a means of assisting performance, it can reveal an individual's ZPD and potentially facilitate the development of higher functions. Scaffolding can take a variety of verbal and non verbal forms, including 'gestures, eye gazes, and pauses' (Stone, 1993, p. 176). While some representations of scaffolding in the literature have painted a picture of the 'more competent other' transmitting knowledge and skills to a passive recipient, more recent descriptions emphasize the active role of the child or student in the interaction (Kinginger, 2002). Indeed, Kinginger argued that scaffolding 'implies the eventual handover of interactional control to students' (p. 254) and Stone (1998) emphasized the necessarily transitory nature of the assistance. Stone (1993) additionally suggested that scaffolding must be understood as involving 'a complex set of social and semiotic dynamics' (p. 180), including the complex interpersonal dynamics at play during the scaffolding process. Examinations of these dynamics must go beyond the typical focus on the immediate interaction of participants to 'the social or cultural factors influencing the quality and potential utility of that interaction' (Stone, 1998, p. 349). This again emphasizes the need to consider context and culture when developing interventions.

Joint productive activity.   Tharp and Gallimore (1988) discussed scaffolding as occurring during joint productive activities. Tharp (1997) identified joint productive activity, grounded in sociocultural theory, as 'when experts and novices work together for a common product or goal, and during the activity have opportunities to converse about it' (p. 6), as the context in which 'learning takes place best' (p. 6) and ideal for supporting diverse learners in the classrooms. Joint productive activity emphasizes the importance of interaction between participants in a learning environment and the reciprocal, transactional nature of their interactions. This is critical for all students, even those with the most significant needs for supports. As Vygotsky (Rieber & Carton, 1993) contended, '*the developmental path for a severely retarded child lies through relationships and collaborative activity, with other humans*' [emphasis in original], (p. 218) and 'that which is impossible on the level of individual development becomes possible on the level of social development' (p. 219). Joint productive activity has the possibility of fostering common understandings, particularly when learners are allowed to influence the development of the learning context. This bidirectional influence is especially crucial when students and teachers come from different cultural, socioeconomic, and experiential backgrounds.

Instructional conversation.   The opportunity to engage in conversation is a critical aspect of joint productive activity. This type of dialogue, where students as well as teachers fully participate in the interaction, is termed *instructional conversation* (Goldenberg & Patthey-Chavez, 1995) and is another of Tharp's (1997) pedagogical principles based on sociocultural theory. According to Tharp (1997) 'instructional conversation is the means by which teachers and students relate formal, schooled knowledge to the student's

individual, community, and family knowledge' (p. 12). Instructional conversation is often contrasted with the traditional mode of teacher-student communication, which has been variously termed recitation script or identified by its sequence of teacher initiation, student response, and teacher evaluation (IRE) (Griffin & Mehan, 1981). Key aspects of instructional conversation include: strategic use of questions designed to deepen students' thinking about ideas, rather than 'testing' questions with a predetermined correct answer; teacher comments aimed at stimulating student reflection, rather than information transmission; and a natural evolution of the dialogue without a preset script. Instructional conversation, then, provides the opportunities to use, refine, and acquire their emerging communication abilities that students with disabilities, especially those educated in segregated setting, sorely lack.

COMMUNICATION AND LANGUAGE

Communication and language development. In sociocultural theory, language has a primary role in conveying sociocultural knowledge and mediating cognitive development. This perspective also focuses attention on contextual influences in language development. Language socialization is a more recent approach to the study of language development and is grounded in sociocultural theory (Duff, 2010). This perspective views the development of sociocultural knowledge and language to be (a) mutually constituative and (b) both process and product (Schieffelin & Ochs, 1986). In terms of the latter, Ochs (1986) defined language socialization as 'both socialization through language and socialization to language' (p. 2). By examining cross-cultural variation in ways adults interact with children, this perspective has been fundamental in challenging the notions that maternal engagement and interactional style (e.g., 'motherese') are the same across cultures and that there is one best way to promote language development in all children, in all settings, in all communities. It also highlights the need to take cultural variation in language use into account when working with and assessing students from diverse backgrounds (Duff, 2010).

Language and culture in the classroom. Sociocultural theory fosters more culturally sensitive perspectives on language use in the classroom and reframes differences in culturally and linguistically diverse students' language use from a deficit perspective to one that recognizes the importance of students' home language and culture to their learning and development. Research among diverse cultural groups in the US, such as native Hawaiians, Native Americans, and African Americans, has demonstrated that positive student engagement with the learning context is facilitated when the language use patterns of their home communities are accommodated in the classroom. For example, Suina and Smolkin (1994) discussed the importance for Pueblo[2] students of group consensus and participation, learning through observation, private practice before demonstrating skill acquisition, and group, rather than individual recognition. Taking students' cultural patterns of interaction and communication into account enhances their possibilities for learning.

DYNAMIC ASSESSMENT

Viewing development as arising from social processes, rather than innate abilities, results in distinctively different approaches to assessment. According to Fottland and Matre (2005), adopting this perspective requires that 'process should be assessed as well as product, that understanding should be dynamic rather than

static, and that the social and cultural context of both learning and assessment must be taken into consideration' (p. 505). *Dynamic assessment* refers to a rich and varied group of assessment techniques (Lidz & Elliot, 2000), both formal and informal, that are interactive and focus on students' learning processes (Lidz, 1995). It is grounded in sociocultural theory and is linked to the ZPD construct, as dynamic assessments attempt to identify areas of potential development by examining the effect of mediation and the learning context on student performance. To accomplish this, different variations of dynamic assessment can be used, including: a test-teach-retest format; comparing the effects of different prompts, cues, or scaffolding devices with an individual's unaided performance (termed 'testing to the limits'); or a clinical interview, in which a student is asked questions during the testing, such as 'How did you know?' or 'What do you think would happen if…?'). Dynamic assessments have been used with infants and toddlers, adults, and individuals with disabilities, as well as those with more typical development. It has also been suggested as a more appropriate method of assessing language ability in bilingual students (Peña, 1996).

EPISTEMOLOGICAL ISSUES

Positivism as the dominant paradigm in special education

Bogdan and Kugelmass (1984, pp. 678–679) argued that special education is based on several fundamental assumptions:

1. disability is a condition that individuals have;
2. disability/typical distinction is a useful and objective distinction;
3. special education is a rationally conceived and co-ordinated system of services that help children labeled disabled;
4. progress in the field is made by improving diagnosis, intervention, and technology.

These assumptions represent a positivistic epistemology, which views knowledge as 'objective, valuefree, and "scientific"' (Bennett & LeCompte, 1990, p. 25). In special education, positivism has influenced the development and application of transmission-based instructional strategies, such as direct instruction, the reliance on standardized, norm-referenced assessment instruments, and the positioning of experimental and quasi-experimental designs as the gold-standard for research. The medical, and other deficit perspectives on disability also reside within the positivist paradigm. These perspectives posit disability as an objectively determined limitation of the individual that is directly related to a biological impairment.

In contrast, the idea of disability as a social construction 'distinguishes between the biological fact of disability and the handicapping social environment in which the person disability exists' (Jones, 1996, p. 350). Vygotsky (Rieber & Carton, 1993) presciently foreshadowed this perspective when he stated that disability 'gives rise to a completely unique social setting unlike that in which a normal person lives. Any breach of human "associative activity" … results in the actual disruption of the entire system of social relations' (p. 76) and 'any physical handicap, be it deafness, blindness or inherent mental retardation, not only changes a person's attitude toward the world, but first and foremost affects his relationship with people' (p. 76). Yet, he was concerned that 'questions regarding handicapped children up until now have been posed and decided as mainly a biological problem' (p. 77). Vygotsky argued eloquently against the deficit view of children with disabilities, cautioning that if we view children's differences primarily as a medical condition, 'we never notice

the gold mines of health inherent in each child's organism, no matter what the affliction may be' (Rieber & Carton, 1993, p. 80), and related his concern that the primary focus of special education is 'on the children's illness and not on their health' (p. 80). With this, Vygotsky, and by extension, sociocultural theory, refocuses education on children's strengths and abilities, rather than on remediating perceived deficits. Vygotsky similarly presaged the 'person-first' ideology, writing 'first, a human being and only then, second, an exceptional human being' (Rieber & Carton, 1993, p. 80). Unfortunately, Vygotsky's strong critique of the paradigm underlying special education, echoed by Bogdan and Kugelmass (1984) almost 30 years ago, have arguably not yet shifted the predominate thinking in the field.

IMPACT OF DOMINANT PARADIGM ON ACCEPTANCE OF INNOVATIONS GROUNDED IN SOCIOCULTURAL THEORY

There is continued debate in special education about the validity of alternative paradigms, such as sociocultural theory, the social construction of disability, and critical theory, the positive or negative impact of such alternative paradigms on the ability to address students' educational needs, and even whether a paradigm shift has occurred or not. I contend that one of the obstacles to adoption of innovations grounded in sociocultural theory is the debate within special education surrounding the validity of 'postmodern' paradigms. While not primarily targeted at those coming from a sociocultural perspective, too often, all non-positivistic research and theory is painted with the same brush and summarily dismissed. This is reinforced by the requirement in the United States for instructional methods to be 'research-based,' while concurrently narrowing the definition of what constitutes acceptable evidence in research. This contributes to the international dissemination of research that values findings purportedly generalizable to all or most student learning and development, regardless of geographical, cultural, or linguistic context. In contrast, the sociocultural perspective focuses on the environment surrounding learning and intervention, thus calling into question the wholesale adoption of interventions developed in one context, community, or country to another.

   A challenge for sociocultural theory is to surmount this polarizing debate in ways that allow for thoughtful consideration of potential contributions from a variety of perspectives. Trent, Artiles, and Englert (1998) criticized those on both sides of 'the paradigm wars' for failure to consider methodologies associated with other camps that might be effective. For example, a sociocultural stance does not exclude strategic use of direct instruction for particular learning objectives. Similarly, the sociocultural perspective can foster the move from an emphasis on 'behavior modification,' a reductionistic perspective on behavior, to 'positive behavioral supports,' which locates problem behaviors in the interaction of the individual with the environment.

PROGRESS MADE IN THE ACCEPTANCE OF SOCIOCULTURAL THEORY AND ITS INNOVATIONS

Paradigm wars notwithstanding, sociocultural theory has made inroads into mainstream special education. Ideas which have a basis in or are congruent with sociocultural theory, such as cooperative learning, peer-mediated instruction, and the need to evaluate students' performance within the context of the instructional setting, are all considered fairly non-controversial instructional practices today. There is widespread recognition of the need to address schooling issues related to student backgrounds, although the proposed

approaches differ significantly. Additionally, the idea that context matters in the learning, behavior, and development of individuals is prevalent throughout the field. Nevertheless, before it can be said that special education is grounded in the sociocultural perspective, much remains to be done.

FUTURE DIRECTIONS

Sociocultural theory has the potential to provide a starting point for examining and addressing critical issues in special education, including educational equity for diverse exceptional learners. Educational equity recognizes that equal treatment is not the same as equal opportunity to learn. This is a fundamental principle of special education – a student who is blind yet receives the same textbook as the rest of the class is receiving the same *treatment*, but not the same *opportunity* to access the text. Educational equity requires that students receive the same opportunity to learn as all other students. Nieto and Bode (2012) argued that 'all students must be given the *real possibility of an equality of outcomes*' [emphasis in original] (p. 9). This requires recognition of their unique learning needs. Yet, students who come from cultural and linguistic backgrounds that differ from the school culture are often not provided opportunities to access learning opportunities. Indeed, students who come from diverse backgrounds are at higher risk of being identified with a disability (see Losen & Orfield, 2002 and Donovan & Cross, 2002, for a review of the research on disproportionate representation). Even when such students are appropriately identified as needing special education services, educational needs stemming from cultural and linguistic differences may be assumed to be insignificant in the presence of the disability, resulting in lack of access to alternative languages services, including bilingual education. Research suggests that students from culturally and linguistically diverse backgrounds are more likely to be educated in more segregated settings than their dominant culture peers (de Valenzuela, Copeland, Qi, & Park, 2006; Skiba, Poloni-Staudinger, Gallini, Simmons, & Feggins-Azziz, 2006). Equal access to the general education learning environment is therefore a special challenge for diverse learners identified with disabilities. Yet, as the definition of equity demands, simply getting a foot in the door of the general education classroom is not enough to ensure equity. General education classrooms must be responsive to all students' learning needs, both resulting from their identified disabilities and their cultural and linguistic backgrounds.

Sociocultural theory provides a strong framework to address these issues. When considering how best to prepare teachers to consider issues of equity and inclusion, Florian and Rouse (2009) contended that sociocultural theory is a necessary component. Likewise, Dixon and Verenikina (2007) found sociocultural theory a supportive framework for the movement towards greater inclusion in schools in New South Wales. As discussed earlier in this chapter, sociocultural perspectives emphasize the importance of psychological tools and interaction with others within learning contexts. When students are segregated from their peers, this restricts the possibility of interaction with more knowledgeable others across a variety of contexts and their access to a range of psychological tools, including the use of their home language as a means of instruction, use of alternative and augmentative communication in natural contexts, and literacy instruction in print-rich environments. As Vygotsky (Rieber & Carton, 1993) reminded us, disabilities stem only indirectly from within child differences. Lack of opportunities to learn can have a far more debilitating impact on development than innate characteristics.

However, sociocultural theory may not provide sufficient direction for understanding some obstacles to

improving the lives and education of individuals identified with disabilities, such as systemic differences in access to power. Critical theory may provide an additional useful lens for understanding resistance to reform initiatives aimed at allowing traditionally marginalized groups' voice in the debate and power to select their own path to educational reform. Contemporary critical theory in education focuses on 'asymmetries in power and privilege' (McLaren, 2003, p. 69) and examines the role of schooling in both constructing inequality and providing possibilities for change. As such, critical theory may be particularly useful in deconstructing the political and economic forces involved in recent educational reforms, particularly those embedded within recent contentious accountability-based initiatives that may have particular deleterious effects on students with disabilities, especially those from culturally- and linguistically-diverse homes. These initiatives include the wide-spread adoption of standards-based curriculum; requirements for scripted math and reading programs; implementation of high-stakes testing with severe school-wide consequences; alternative routes to teacher licensure; teacher evaluation tied to high-stakes testing, with ramifications for retention, licensure, and salary; and evaluation of higher education teacher education programs based on test scores of students in the classrooms of their graduates. In addressing these and related educational issues, critical theory and sociocultural theory are compatible perspectives. Sociocultural theory emphasizes the importance of the social context of human development. Critical theory provides the framework to examine the ways in which education practices and policies both limit opportunities for individuals identified with disabilities, especially those from marginalized groups, and serve to sustain an ideology of disability that perpetuates disabling practices. The marriage of both approaches therefore provides a rich foundation for examining issues of educational equity and social justice within special education.

NOTES

1   It is important to note that in sociocultural theory the term 'genetic' is used to indicate 'origin,' not a trait derived from chromosomal make-up.

2   This term refers to the indigenous people and tribes that comprise the 19 Pueblos of New Mexico and distinguishes these tribes from other tribal groups, namely the Apache and Navajo. (C. Sims, personal communication, August 11, 2005)

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19

Educational Neuroscience: Bridging the Gulf between Basic Research and Implications for Practice

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The physiology of learning is studied by neuroscientists, and the mechanisms that they are uncovering are akin to the 'general laws of learning' long sought by psychologists. Once we understand *how* learning occurs in the brain for different domains relevant to education, we can study the effects within a domain of different learning contexts and situations. We can assess directly the effects of different learning environments on brain physiology. In principle, this approach enables the development of an empirical evidence base for investigating the effects of different pedagogies, and of how they will impact learning when they are delivered in different contexts and situations. Eventually, it should be possible to study key educational questions using traditional scientific and neuroscientific approaches.

However, this emergent field of educational neuroscience is a long-term enterprise with few immediate pay-offs. In this chapter, which extends my address to the inaugural meeting of the Centre for Educational Neuroscience in London, I outline a possible conceptual framework for this new field using neuroscientific research on reading/dyslexia as an illustrative example of how neuroscience can help to answer questions of enduring educational interest and relevance. My view is that to make a lasting contribution to education, educational neuroscience must address itself first to very basic research questions. We need to understand how information is coded and transmitted in the brain, and how these physiological processes relate to learning. A good place to begin is with what we already know about the development of cognitive systems relevant to reading acquisition.

WHAT DO WE ALREADY KNOW?

Reading acquisition by children is predicted across languages by individual differences in children's awareness of the phonological (sound-based) structures of speech (Ziegler & Goswami, 2005). This has been demonstrated in psychological and educational research by asking pre-reading and reading children to complete simple oral tasks such as counting the number of syllables in words (2 syllables in 'wigwam', 3 syllables in 'radio'), deciding whether words rhyme ('cat–hat', *yes*, 'cat–cot', *no*) and deciding whether words begin with the same sound ('sea' 'celery', *yes*). Performance in tasks like these are predictive of reading in both alphabetical languages like English and German (e.g., Frith, Wimmer & Landerl, 1998), and in non-alphabetical languages like Chinese (e.g., Siok & Fletcher, 2001). More recently, 'suprasegmental' phonological awareness has also been shown to be important in explaining individual differences in reading (Goswami, Gerson & Astruc, 2010; Whalley & Hansen, 2006; Wood & Terrell, 1998). Suprasegmental awareness is awareness of the prosodic and stress patterns that characterize connected speech, when whole sentences or phrases rather than single words are the unit of phonological analysis. Indeed, research with

infants suggests that as a lexicon of spoken word forms develops, both phonetic ('segmental') and prosodic ('suprasegmental') information is inextricably bound together in the phonological information stored by the brain for each word form (e.g., Pierrehumbert, 2003).

Phonological structure will of course differ across languages, and so some phonological predictors of efficient literacy acquisition will also differ. For example, Chinese is a tonal language. Identical syllables have a different meaning when they are spoken in a different tone (e.g., pitch rising through the syllable versus level pitch throughout the syllable). For languages like Chinese, as might be expected, tone awareness is also an important predictor of literacy acquisition (e.g., McBride-Chang, Shu, Zhou, Wat, & Wagner, 2003). As well as phonological skills, individual differences in other aspects of linguistic awareness can also be important predictors of literacy. An example is morphological awareness, where children have to pay attention to the meanings of words (e.g., 'What is a tree that grows shoes called? A shoe tree'). As can be seen, all these skills that are predictive of literacy are based on oral language processing tasks. The 'input' for analysis by the child is a sound pattern or a group of sound patterns. Across languages, the core perceptual unit reflecting these sound structures is now thought to be the syllable rather than the phoneme (e.g., Greenberg, 2006; Port, 2007).

Further, these different phonological and other skills are believed to be impaired in children who have developmental dyslexia because the best predictor across languages of who will have problems in acquiring the orthography of that language is phonological awareness (Ziegler & Goswami, 2005; Ziegler, Pech-Georgel, Dufau, & Grainger, 2010). This is the case whether the orthographic system is alphabetic and works at the smallest 'grain size' of the phoneme, or uses characters that may correspond to larger 'grain sizes' such as syllables (as in Japanese Kana) or even whole words (as in Chinese Kanji). Children with dyslexia in languages as phonologically and orthographically diverse as English, Italian and Chinese all have phonological difficulties (see Ziegler & Goswami, 2005, for an overview). Despite the phonological and orthographic differences between languages, current work in cognitive neuroscience suggests that the core neural systems that are active during both language processing and orthographic processing (reading) are very similar across languages (see Price & McCrory, 2005, for an overview). The neural networks that are active during language and reading tasks in different languages are largely the same physiological structures. Hence if we wish to understand the sensory processes underpinning the development of the *cognitive* system used as a basis for becoming a reader, which is the spoken language system, one approach is to study how the brain encodes sound inputs, both speech and non-speech. This approach assumes that literacy is parasitic upon the efficiency of oral language processing, and does not draw on completely novel neural processes (e.g., Krafnick, Flowers, Napoliello, & Eden, 2011).

WHICH SENSORY PROCESSES ARE LIKELY TO BE IMPORTANT?

The primary sense underlying speech perception is audition. Recent research has shown that babies are hearing speech even while in the womb, although what they can hear best is the low-frequency modulations in speech. Hearing mainly low-frequency modulations is similar to listening to someone speaking under water – the basic syllable structure of their speech can be distinguished, but not always the exact words. This research suggests that babies are born with some awareness of the characteristic rhythmic patterns of their native

language, the language that they have already heard their mother producing, and neonates can indeed distinguish both their native language from other languages, and languages with contrasting rhythm classes. For example, 4-day-old infants are sensitive to the differences in rhythm and prosody which characterize Dutch versus Japanese (Mehler et al., 1988). Once the baby is interacting with social partners, however, visual information from lip, jaw and cheek cues supplements auditory information in important ways (e.g., Kuhl, 2004). These 'speechreading' skills are important for everyone's efficiency in processing oral language, not only for deaf individuals who may not have access to any auditory information. This can be simply demonstrated by the 'cocktail party effect', that it is easier to follow a conversation at a crowded party when you can see the speaker's mouth as well as hear what she is saying. Interestingly, auditory neuroscience suggests that a key aspect of visual information with respect to speech intelligibility is the low-frequency visuo-spatial information correlated with opening and closing the jaw. As we open and close our jaws to produce syllables, there is low-frequency dynamic visual information centred at around 4 Hz (Chandrasekaran, Trubanova, Stillittano, Caplier, & Ghazanfar, 2009). The low-frequency auditory information in speech yields syllabic structure, and peaks at around 4–6 Hz (Drullman, 2006). Hence auditory and visual physiological mechanisms are converging to increase processing efficiency for language, both in terms of perception, and then motorically as babies learn to produce spoken language that can be interpreted by their social partners.

However, research into individual differences in children's basic auditory processing skills suggests that some key basic auditory processes are impaired in children with developmental dyslexia (see Goswami, 2009, 2012, for an overview).

Over the past decade, we have conducted a number of studies that suggest that the primary auditory difficulties for children with reading or language problems involve amplitude envelope processing (Corriveau & Goswami, 2009; Corriveau, Pasquini, & Goswami, 2007; Goswami, 2009; Goswami, Gerson, & Astruc, 2010; Goswami et al., 2002; Muneaux, Ziegler, Truc, Thomson, & Goswami, 2004; Pasquini, Corriveau, & Goswami, 2007; Richardson, Thomson, Scott, & Goswami, 2004; Thomson, Fryer, Maltby, & Goswami, 2006; Thomson & Goswami, 2008). The amplitude envelope of speech refers to the fluctuations in sound intensity that reach the eardrums when listening to spoken language. As speech is produced, energy (or amplitude, the amount of sound generated by the speaker) rises and falls as syllables are produced and the jaws open and close. The ear then detects the different frequency bands in speech contained in the amplitude envelope and uses both amplitude (sound intensity) and frequency information to encode the signal. Neurally, the auditory system codes amplitude modulation in natural sounds both across different frequency channels and at different time scales (Joris, Schreiner, & Rees, 2004). As a syllable is produced, energy will increase as the mouth opens, and will peak at the production of the vowel, hence syllables can be described as 'energy arcs' (Greenberg, 2006). The rise time to the vowel, namely the onset of the amplitude envelope associated with a particular syllable, is a critical event in the speech signal, facilitating the temporal segmentation of the signal into syllables. Rise time also relates to phonetic characteristics of the syllable: rise time will be fast if a syllable begins with a plosive sound, like BA, and slower if a syllable begins with a more sonorant sound, like WA. Behaviourally, rise time is also related to rhythmic timing, in language and music, across languages from different rhythm classes, in both perception and production (Gordon, 1987; Hoequist, 1983; Morton, Marcus, & Frankish, 1976; Scott, 1998). In our studies, we compare typically-developing children's processing of the rise time, duration, intensity and frequency of non-speech tones with that of children with

developmental dyslexia or specific language impairment (SLI). Our data show that the difficulties in phonological processing found in both of these developmental disorders are strongly associated with inefficient basic auditory processing of rise time.

In our studies, individual differences in the severity of the rise time impairment are strongly predictive of the degree of phonological impairment found in different children. We have interpreted this as evidence that accurate rise time perception is crucial for developing the high-quality phonological representations of language required for the acquisition of literacy.

IS THERE A NEUROSCIENCE MODEL RELEVANT TO DEVELOPMENT?

Auditory neuroscience offers us a range of models for understanding how auditory sensory information may be represented and coded in the areas of the brain that are active during linguistic processing. I will discuss one such model in depth, because in my view it is highly relevant to understanding the causal links between basic auditory sensory processing, the development of phonological awareness and oral language skills, and thereby reading acquisition and dyslexia. This model is the multi-time resolution model of speech processing outlined by Hickok and Poeppel (2007, see also Poeppel, Idsardi, & van Wassenhove, 2008). In their model, which is based on their own and many other data, the cortical organization of speech processing involves two streams, a ventral stream and a dorsal stream. The ventral stream processes speech signals for comprehension, and the dorsal stream maps acoustic speech signals to articulatory networks in the frontal lobe. Speech is a signal that the brain processes over time, and it is a temporally complex signal. Many frequencies are varying at different time scales and at different intensities. Hickok and Poeppel (2007) hence propose that the cortex processes speech simultaneously on multiple time scales. This is thought to be achieved on the basis of neuronal oscillations, which are discussed below. For now, what is notable is that their framework postulates two key temporal rates, a 'suprasegmental' or syllabic rate (with a long temporal integration window of 150–300 ms) and a 'segmental' or 'phonemic' (speech sound) rate, with a short temporal integration window of around 20–50 ms. In their model, the longer time scale carries syllable-boundary and syllabic-rate cues. It also carries tonal information, prosodic cues and stress cues. The shorter time scale is required to determine the order of speech sound segments (e.g., in the words 'pets' versus 'pest'). The shorter time scale also accords with the features that vary as we produce different sounds, such as voice onset time (the difference in the degree of the vibration of the vocal cords as we produce /b/ versus /p/, which varies over around 40 ms). So developmentally, both time scales are linked intimately not only to speech perception (e.g., of syllables versus phonemes), but also to speech production (e.g., of syllables versus phonetic features).

These different temporal scales are thought to be 'bound together' when speech is perceived, enabling input from other sensory modalities to contribute to speech perception (e.g., the visual cues already discussed from lip and cheek movements). (Note that 'binding' is a concept used in a number of different ways in neuroscience studies, and that Hickok and Poeppel, 2007, mean something different from Blomert, 2011, when they discuss binding). Thinking about this model with respect to children's phonological development, it seems likely that at least 3 types of sensory information should be developmentally important. These are temporal integration at the longer time scale of the syllable, temporal integration at the shorter time scale of the phoneme, and cross-modal auditory-visual (AV) integration or AV binding. Accordingly, a neural

inefficiency in processing any one of these aspects of sensory information might be expected to affect the developmental trajectory for phonological development. Again, we need to consider what we already know. In fact, studies with infants suggest that typically-developing babies are processing both time scales in speech from birth. As already discussed, newborn infants can distinguish languages on the basis of their syllabic or rhythmic properties, and infants tested within the first month of life can also distinguish phonetic differences dependent on information within short temporal windows, for example discriminating 'ba' from 'pa' (Eimas, Siqueland, Jusczyk, & Vigorito, 1971). Finally, infants are highly skilled at detecting AV mismatch in speech, for example becoming upset and crying if they are made to view a video of a talking head which is out of synchronization with what they can hear (Dodd, 1979).

How does the brain encode information at these different temporal scales? A series of recent animal studies using single cell recording electrophysiology in early sensory and multisensory cortices have shown that the brain utilizes oscillatory processes at different time scales to maximize the power of information representation. For humans and speech processing, it seems likely that neuroelectric oscillations in different frequency bands effectively segment the incoming speech signal into 'packets' of information at different grain sizes. These packets of information, such as syllable versus phonetic feature, can be matched with stored representations and interpreted. Via neural phase locking (rhythmic entrainment) to incoming frequencies, the brain can track speech dynamics across speaker variability (speech rate will vary across speakers, but the packets of information being conveyed by each speaker are still carried by the different time scales within an individual's speech envelope, e.g., syllables, phonetic features etc). In this way, the auditory cortex tracks and discriminates spoken sentences, enabling speech to be understood.

The animal data suggest that different oscillatory rates do different 'jobs' in integrating sensory input (e.g., Kayser, Petkov, & Logothetis, 2008; Lakatos, Chen, O'Connell, Mills, & Schroeder, 2007). For example, lower-frequency oscillations govern influences from auditory cortex to the multimodal area for AV binding, superior temporal sulcus (STS). Higher-frequency oscillations govern influences from STS to auditory cortex (Kayser & Logothetis, 2009). Temporal coding is thus used in conjunction with spatial coding (i.e., which populations of neurons are active) to maximize the representation of sensory information. We already know that there are different oscillatory frequencies in the human brain, too, from EEG (electroencephalography) studies, which indicate electrical activity in different frequency bands (e.g., Delta, 0.5–4 Hz, Theta, 4–8 Hz, Gamma, 30–80 Hz). More recently, there has been considerable interest in whether different networks of neurons in the brain have preferred oscillatory rates, enabling them to encode incoming sensory information by 'phase locking' or entraining themselves with the same rates in the input. Auditory input has many different temporal frequencies, and visual input has many different spatial frequencies.

During speech perception, cognitive neuroscience studies with adult humans suggest that it is 'phase locking' (when the phase of an oscillator signal is tied to the phase or timing of a reference [input] signal) at the Theta rate in Heschl's gyrus that determines the syllabic parsing of speech and its consequent intelligibility (Luo & Poeppel, 2007). Heschl's gyrus is in primary auditory cortex, and the Theta rate is approximately the rate at which syllables are produced across the world's languages (see Poeppel et al., 2008). Networks of neurons in this area of auditory cortex are thought to use events in the incoming signal such as rise times to reset their oscillatory activity, so that their natural oscillatory rate is in phase with the input, thereby enhancing sensory processing (see Goswami, 2010). In the multi-time resolution model (Hickok & Poeppel,

2007), networks of neurons that sample input at fast rates (Gamma) and slower rates (Theta) are proposed to underpin fast versus slow temporal integration windows for speech. For example, Luo and Poeppel (2007) demonstrated using MEG (magnoencephalography) that the phase pattern of Theta band (4–8 Hz) responses recorded from human auditory cortex reliably tracked and discriminated spoken sentences. The period of Theta oscillation (suggested to be a temporal window of approximately 200 ms) appeared to reset itself on the basis of incoming speech information to track speech dynamics, enabling segmentation of the incoming signal into syllablesized chunks that could be used to access the mental lexicon of spoken word forms. Luo and Poeppel argued from their data that the syllable was a computational primitive in cortical speech processing, a view that is supported by current work in both machine recognition of speech and linguistics (Greenberg, 2006). This view has yet to gain ground in reading education and in behavioural studies of reading, even though it has clear implications for pedagogy.

DOES THE NEUROSCIENCE MODEL ENABLE PREDICTIONS ABOUT BEHAVIOUR?

This conceptual framework from auditory neuroscience can now be used to make predictions about children's behaviour. For example, at the brain level, we can explore whether syllable perception and speech intelligibility are related to the phase pattern of the Theta band, in children and in infants. Infants recognize their own name by 4 months of age, and produce their first words by around 9 months (Bortfeld, Morgan, Golinkoff, & Rathbun, 2005; Fenson et al., 1994). As both Theta and Gamma oscillatory rates appear to be intrinsic to human auditory cortex (Giraud et al., 2008), phase resetting and phase locking phenomena could be studied in the first year of life and related to linguistic and phonological development. Such measures may also provide neural markers of risk for phonological disorders such as dyslexia (Lyytinen et al., 2001), as may rise time sensitivity measured early in development (Goswami, 2009). We can also explore whether the efficiency of phase locking in Heschl's gyrus predicts children's language and phonological development, and whether phase locking to the amplitude envelope of speech is impaired in dyslexia.

At the behavioural level, we might expect children with dyslexia to show phonological difficulties linked to the suprasegmental aspects of speech, such as prosodic and syllable stress difficulties. These phonological difficulties might be apparent with all metrical language tasks (metrical structure refers to the alternation of strong and weak syllable 'beats' as speech is produced). Indeed, difficulties may be apparent in other rhythmic tasks involving metrical structure, such as music tasks, or even in simple rhythmic perception tasks which should also require intact phase locking by auditory networks to rhythmic input. One example is tapping in time with a beat. Recent research supports at least some of these predictions. For example, keeping time with a metronome beat by finger tapping (rhythmic entrainment) appears to be impaired at syllable-relevant rates in developmental dyslexia (Thomson et al., 2006; Thomson & Goswami, 2008).

Understanding learning mechanisms in detail with respect to cognitive systems like language or attention are critical for the discipline of educational neuroscience. By studying sensory processing and by studying how complexity develops via sensory integration beyond infancy, we can test developmental hypotheses, which are critical for optimizing teaching and learning. Previously in developmental research, such phenomena have been explained as 'core knowledge'. For example, it has been argued that the infant brain arrives into the world endowed with four core knowledge systems, one each for representing objects, actions, number and

space (Spelke, 2000). The object core knowledge system represents inanimate objects and their mechanical interactions, the action system represents agents and their goal-directed actions, the number system represents sets and their numerical relations, and the space system represents places in the spatial layout and their geometric relationships (there may also be a fifth core knowledge system for representing social partners, see Spelke & Kinzler, 2007). However, at the level of sensory perception, these types of apparently dissociable 'core knowledge' may be better understood in terms of the rapid development of integrated neural networks for storing perceptual experiences. The infant brain learns correlated sensory information very rapidly in many domains, for example in face processing, speech processing and goal-directed action (e.g., Dehaene-Lambertz et al., 2006; Farroni, Csibra, Simion, & Johnson, 2002; Kuhl, 2004). As expertise develops (i.e., as repeated instances of a particular multisensory event are experienced), top-down knowledge modulates basic sensory processing in a way reminiscent of how conceptual knowledge affects the categorization of individual novel instances in behavioural experiments. Work in infancy has shown repeatedly that if 'prior experience' of a category is manipulated experimentally, it will affect later categorization decisions (Quinn, 2010).

With respect to how prior knowledge affects the perceptual processing of *novel* instances, Riecke and colleagues studied the perceptual basis of the continuity illusion in adults using fMRI (Riecke, van Opstal, Goebel, & Formisano, 2007). If a sound is interrupted by silence, we perceive it as discontinuous, but if a sound is interrupted by a noise burst, it is perceived as continuing through the noise. Riecke et al. measured the BOLD response to tones which evoked a continuity illusion and tones which did not, under different levels of masking noise. The fMRI data were analysed both in terms of the physical stimulus and then subsequently in terms of the perceived stimulus. It was found that stimulus-evoked activity did not correlate with the basic acoustic properties of the stimuli, but instead with their perceived continuity. In other words, *identical* sensory stimuli evoked *different* neural responses depending on the listener's cognition (whether the listener perceived them as continuous or not). Riecke et al. (2007) argued that the brain response was based on the *abstracted dependencies* between the tones and noise rather than on the physical tone/noise pairing that was presented on an actual trial. Prior perceptual experience had been abstracted neurally and this abstraction was modulating basic sensory responding. Similar abstraction effects of prior perceptual experience can be demonstrated in infants (Kaufman, Csibra, & Johnson, 2003).

These illustrative examples are important *in principle* demonstrations that suggest cognitive neuroscience already has the methods for understanding basic processes in cognitive development during learning in real time. For example, AV correspondence is critical for language learning. We already know that babies can hear the differences in phonetic features that discriminate between syllables from birth (Kuhl, 2004), that the cortical structures active in adults are also active in infants when speech is heard (e.g., Broca's area, Dehaene-Lambertz et al., 2006), and that infants focus on mouth and jaw information as they learn speech sounds (for example, infants become distressed by lack of AV correspondence when heard and seen speech are presented out of sync, Dodd, 1979). The impact on the developmental trajectory for language if an infant brain were to be less sensitive to temporal correspondence, or was slower to modulate primary sensory cortical activity on the basis of repeated AV experience, could be profound. Cognitive neuroscience offers us measures and methods for exploring these hypothetical possibilities. The way that the infant brain codes dynamic visuo-spatial information could also be investigated. We know from behavioural studies that certain kinds of visuo-spatial motion (even when the moving objects are geometric shapes like rectangles) gives an impression of

animacy to infant (and adult) viewers. For example, when a rectangle changes direction on a screen, it appears more like an agent if it also changes its orientation (so that the 'leading edge' turns to face the new direction of travel; Tremoulet & Feldman, 2000). Again, these kinds of studies suggest that very basic sensory information could in principle form the basis of conceptual 'core knowledge' (e.g., the animate-inanimate distinction). By hypothesis, an infant brain with less efficient sensory processing of one aspect of this kind of information may therefore develop an atypical cognitive system (e.g., for social cognition). By studying sensory processing and by studying how complexity develops via sensory integration beyond infancy, we can test such developmental hypotheses, which are critical for optimizing teaching and learning.

These examples show one way of exploring the neural basis of 'core knowledge' from a neuroimaging perspective. However, to get closer to underlying causal developmental mechanisms, insights from another area of study in neuroscience, that of oscillatory activity, seem likely to offer a high pay-off. A series of recent studies using single cell recording electrophysiology in early sensory and multisensory cortices have shown that the brain utilizes different temporal processing windows to maximize the power of information representation. Oscillatory patterns of neural activity are used to communicate between groups of neurons, and the responses of individual neurons can be precisely locked ('phase locked') to oscillatory activity, so that coupling of brain rhythms in distant areas of cortex can enable causal interactions between networks. Oscillatory phenomena appear to play a role in top-down modulation, for example in cognitive control (Sauseng et al., 2009). Oscillatory patterns have been studied in physiological detail with respect to multisensory integration, and it has been shown that different oscillatory rates do different 'jobs' in integrating sensory input (e.g., Kayser et al., 2008; Lakatos et al., 2007). For example, visual influence in auditory cortex is mediated by low-frequency oscillations, while faster oscillations appear to underpin multisensory integration in areas like STS. Lower-frequency oscillations govern influences from auditory cortex to STS, whereas higher-frequency oscillations govern influences from STS to auditory cortex (Kayser & Logothetis, 2009). Temporal coding is thus used in conjunction with spatial coding (i.e., which populations of neurons are active) to maximize the representation of sensory information. 'Nested' codes which combine spike-train patterns with the temporal phase of firing yield the highest amount of information (calculated on the basis of information theory). Nested codes are also the most robust to sensory 'noise', and they maximise information at lower frequencies in particular (Kayser, Montemmurro, Logothetis & Panzeri 2009). It is increasingly apparent that lower-frequency phase locking may be critical for higher-level cognition. For example, during speech perception it is phase locking at the Theta rate in Heschl's gyrus that seems to determine the syllabic parsing of speech and its consequent intelligibility (Luo & Poeppel, 2007).

The electrophysiology and MEG studies outlined above suggest that detailed exploration of phase locking and oscillatory mechanisms in the child's brain could yield rich rewards with respect to illuminating the developmental mechanisms whereby sensory perception builds cognitive systems. For example, if low-frequency phase locking in auditory cortex is inefficient (for example, in developmental dyslexia, where Theta and Delta phase locking appears impaired, see Penolazzi, Spironelli, & Angrilli, 2008; Soltesz, Szűcs, Cheah, & Goswami, 2010), this would affect both the sensory representation of speech and potentially have knock-on effects for multisensory integration in STS (and for multisensory attention). Similarly, if a mechanism such as cross-frequency phase synchronization between Theta and Gamma oscillations at posterior parietal recording sites determines the capacity of visual working memory (Sauseng et al., 2009), then impaired phase

synchronization at these sites would seem likely to impair working memory capacity and have consequent effects on cognitive control. In principle, studies exploring very basic aspects of information coding such as phase locking in different neural systems might therefore be very informative with respect to developmental disorders of cognition and learning. They may also illuminate our understanding of the co-morbidities that can be so frequent in developmental learning difficulties. An inefficiency in phase locking within a certain frequency band may occur in more than one neural structure, and thus have measurable knock-on effects for other cortical processes. Understanding the causal links between perceptual learning, sensory processing and cognitive development could explain why certain cognitive features are co-morbid in developmental learning difficulties and others are not.

Eventually, research based on such principles could have an enormous educational pay-off. For example, it is in principle possible that educational interventions could be devised which selectively affected a targeted oscillatory frequency. Such interventions would have important impacts on later developmental trajectories. Technically, this understanding is within our reach, as biofeedback studies have shown that human adults can engage selectively particular oscillatory frequencies in particular areas of cortex to enhance learning (e.g., Rozengurt, Barnea, & Reiner, 2010). This opens the possibility that the conceptual learning that is taught in schools may be amenable to similar neurofeedback effects.

The intervention studies required to test this hypothesis would not necessarily require the future use of biofeedback in schools. The crucial promise of such neuroimaging methods is that we could use tools such as neurofeedback in the laboratory to explore how and where traditional choices of educational intervention have their effects. As a linguistic example, it seems in principle plausible that nursery school activities which focus on rhythmic and metrical language (singing, learning nursery rhymes, reciting metrical poetry) entrain the lower-frequency oscillations in Heschl's gyrus (Theta & Delta) which appear to phase lock to the syllable rate and to the intonational patterning of speech. Hence, enhancing Theta and Delta power during learning nursery rhymes and singing may enhance linguistic development. Being able to explore such hypotheses about oscillatory entrainment empirically could yield rich educational rewards

It is not ridiculous to propose that in the future, we will have the knowledge to investigate how different kinds of classroom environment affect learning in mechanistic detail, for example whether certain kinds of play-centred early educational environments increase the expression of serotonin and oxytocin compared to more formal educational environments. Coupled with studies of how serotonin or oxytocin levels affect learning, this detailed level of understanding will enable principled debate of hotly-contested issues in education, such as whether competition is better for learning than co-operation, or the relative benefits offered by group work versus whole-class teaching.

SOME PRINCIPLES TO GUIDE RESEARCH

Our proposal is therefore that educational neuroscience should prioritize basic research into how sensory processes build cognitive systems, using insights from the whole field of neuroscience (beyond cognitive neuroscience) and studying the whole brain. Although not discussed so far, the motor system is a critical system in this endeavour. Infants and young children learn as much from 'doing' as from seeing and hearing. For example, while valid causal inferences can be made on the basis of perceptual information alone (e.g., that

a larger ball that rolls into a stationary smaller ball should cause the smaller ball to move), active experience is needed to rule out invalid inferences (e.g., if the large ball is very light and the small ball is very heavy, movement of the small ball might not occur). Indeed, it was recognized by Piaget a long time ago that infants first code environmental information using sensory-motor representations (Piaget, 1954). Becoming able to act upon the world enriches infant knowledge systems tremendously, and action-based knowledge remains part of the 'conceptual' representations. Adult brain imaging shows us that even when *reading* movement words, there is activity in the motor system (e.g., reading 'kick' activates neurons in motor cortex that are also active when moving one's legs, reading 'lick' activates neurons that are active when moving one's mouth and tongue; Hauk, Johnsrude, & Pulvermuller, 2004). In principle, all sensory systems associated with learning about a particular kind of action, object or event seem likely to form part of the 'conceptual representation' or our 'conceptual knowledge' of this action, object or event (Barsalou, Simmons, Barbey, & Wilson, 2003). Modern brain imaging is showing us that early sensory-motor representations are not replaced by symbolic knowledge, as Piaget assumed. Rather, symbolic knowledge (concepts, words) always depends on the activation of multiple neural networks across the whole brain, including sensory and motor networks. Accordingly, educational neuroscience needs to investigate *how* what cognitive science calls symbolic knowledge develops, as it is symbolic knowledge that education seeks to affect.

The field needs to move ahead to studying the whole brain and exploring the functional significance of structure-function correlations in terms of cognitive development and educational attainment (Supekar, Musen, & Menon, 2009). Neuroscience is offering a range of methods for exploring functional significance (as illustrated here via oscillatory phase locking) but the field should move towards explaining *how* developmental changes in neural phenomena are connected with behavioural developmental change. In a recent editorial, my colleague, Dénes Szűcs and I (Goswami & Szűcs, 2010) proposed some (preliminary and partial) principles to guide future research in educational neuroscience:

1. The field needs to study over developmental time the neural representation of sensory information, particularly dynamic spatio-temporal information, which might form the neural basis of infant 'core knowledge' as well as be the basis for language and social cognition.
2. The field needs to study directly the multi-modal and distributed nature of the neural representations that develop in response to environmental experiences, studying the whole brain.
3. The field needs to study how the brain builds complexity in developing representational systems that we currently describe as 'symbolic'. For example, it must study how connectivity develops, and how neural integration of information yields higher-level 'knowledge'.
4. The field needs to study directly how top-down modulation actually occurs. Although this is extremely difficult to study, it is critical, as education essentially manipulates top-down effects on learning. For example, education can help children to more efficiently inhibit competing information during reasoning and problem-solving.

Clearly, such a research enterprise requires sustained effort, and will not yield knowledge that is useful for educators in the short-term. On the other hand, the speed at which neuroscience (and cognitive neuroscience) methods are developing, and the innovation already apparent in technical capabilities and new mathematical approaches to handling data, mean that many advances are within our grasp even within the next decade.

WHICH BRAIN IMAGING METHODS ARE RELEVANT TO TRANSLATION AND PEDAGOGY?

Any environmental input, including the learning environments offered in educational settings, will affect

physiological processes in the brain. With respect to the framework developed so far, it seems important to understand whether traditional primary school practices, such as learning nursery rhymes (which are often metrical poems), singing and learning poetry, affect the physiological processes that appear (by the analysis offered here) to be important for perceiving syllable structure and metrical structure in speech. It would be extremely interesting to examine whether early pedagogical practices based on language play (rhyming games, syllable games) or on combining motor movements with language (clapping out syllable rhythms, marching in time to syllable beats), or singing to music (where the temporal structure of music must be co-ordinated with the temporal structure of language by aligning rhythmic structure) modulate the activity of the Theta oscillatory networks measured by Luo and Poeppel (2007). By hypothesis, these activities should entrain the lower-frequency oscillations in Heschl's gyrus (Theta and Delta) which appear to phase lock to the syllable rate and to the intonational patterning of speech. The prediction would be that the efficiency of phase locking (i.e., entrainment) of these Theta oscillators would be improved by children's language play. If these forms of language play do improve Theta phase locking in auditory cortex, and if this is linked to enhanced phonological awareness, then educational neuroscience will have provided strong evidence that such pedagogies are important for effective early years-education in literacy.

CONCLUSION

As has been shown, a neuroscience approach enables the putative developmental causal mechanism to be tested. The efficiency of phase locking would be the dependent variable, language play would be the intervention, and if there was a change in the dependent variable following the intervention, then that would suggest a positive relationship between language play and the operation of the physiological substrate for linguistic encoding. As is usual in developmental studies, possible third variables would have to be ruled out, and it would be important to test the effects of the intervention in different settings and with different populations. The conceptual point is that a neural dependent variable, such as efficiency of phase locking, can be used to compare different forms of early intervention aimed at boosting children's language development, and can tell us which interventions actually have their effects on the neural system for language (rather than, for example, on confidence or self-esteem – which would also be important, but would implicate different developmental mechanisms).

Further, such neuroscience studies could provide a rationale for giving children who may be at risk of reading difficulties extra rhythmic and musical educational experiences, and then for testing whether these actually work on the developing language system. As the brain is a very complex and integrated system, it is possible that during development early experiences that supplement auditory rhythms with (say) motor rhythms (as in marching in time to music) may either strengthen different encoding mechanisms that will support auditory rhythmic entrainment (e.g., via subcortical structures like the cerebellum) or may have a direct effect on the efficiency of oscillatory mechanisms in auditory cortex itself (e.g., via multi-sensory integration). The really important point for education is that these are empirical questions and that they can be tested and then refuted if wrong.

Note further that such measures also provide a tool for exploring the effects of other educational interventions, for example other interventions argued to remediate developmental dyslexia. A neural index

that has been shown to be linked to phonological development, such as (by hypothesis) the efficiency of Theta phase locking, could be used to discriminate between effective and ineffective educational interventions. For example, ineffective interventions would also be expected to lead to changes in physiological processes in the brain, but may have their effects on quite different neural systems, perhaps systems that are completely unrelated to language. As physiological processes are independent of attention and a physiological process like phase locking of neural oscillators cannot (as far as we know) be consciously applied to some stimuli and not others, the systematic study of very basic aspects of information coding such as phase locking in different neural systems has the potential to provide a robust evidence base for education. In this way, basic studies in neuroscience are thought to have real value for education.

The ideas discussed in this chapter offer only one possible framework for linking neuroscience to education (see also Goswami & Szűcs, 2011; Nelson & Bloom, 1997). The aim has been to show the potential for neuroscience to make a useful contribution to education. There is a need to explore the developmental processes that build apparently specialized neural networks in adult brains in order to affect the developmental trajectories and end states of these networks. Once we have greater understanding of causal developmental mechanisms at the sensory level, across the whole brain, we can study how these mechanisms of learning and development relate to individual differences in educational achievement. This should enable us to optimize learning environments, both within and outside schools. It should also enable us to answer some of the questions about the nature of knowledge and how we learn, questions that are of central interest to education.

NOTES

The editor compiled this chapter with the author's approval and permission from the publishers of the paper *Neuroscience and Education: Can we go from basic research to translation? A possible framework from dyslexia research* (Goswami, 2012), and the Goswami & Szücs (2011) editorial, *Educational neuroscience: Developmental mechanisms: Towards a conceptual framework*.

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Research perspectives

20

Comparative and International Perspectives on Special Education

Justin J.W. Powell

CONTEMPORARY CONTEXTS

Special education has been fundamentally affected by societal and educational change. At the same time, these systems and their participants, from students and parents to teachers and professionals, have also transformed societies, especially with regard to understandings of dis/ability and ab/normality. This influence has been visible from the original special schools and classes, established several hundred years ago; often preceding compulsory schooling. Today, widespread recognition of the impact of education for a host of private and public goods – as well as of institutionalized discrimination that people with disabilities face – galvanizes contemporary debates. If special education successfully provided learning opportunities to children previously excluded, in many countries the goal has shifted to inclusive education. In these settings, all children, regardless of their characteristics, attend neighborhood schools and are supported to reach their individual learning goals in heterogeneous classrooms. Yet in much of the world, even the most basic supports and services for students with learning difficulties or children with disabilities are completely lacking, with impairment, poverty, and educational and social exclusion intertwined. Universally, there are children and youth with disabilities and those in need of support in achieving their learning goals; these groups are not conterminous. Traditionally, special education has provided additional support for the diverse group of learners perceived as having 'special educational needs' or labeled and grouped in other categories defined by the clinical and teaching professions.

Global ideals, such as 'education for all' and inclusive education, continue to be prominently discussed, especially as 132 countries have (as of June 2013) ratified the UN Convention on the Rights of People with Disabilities (UNCRPD) (United Nations, 2006, 2013). The Convention's Article 24 extends far beyond schooling, as it mandates inclusive education throughout the life course, challenging all educators and levels of education systems to embrace the diversity of (potential) learners: to 'ensure that persons with disabilities are able to access … education … without discrimination and on an equal basis with others' (Section 5). The UNCRPD's provisions specify necessary changes to facilitate access and meaningful educational opportunities for disadvantaged and disabled learners. Such transformations to enhance equity and overall education system performance affect the political and social contexts in which special education programs seek to offer support, but have considerable implications for all learners.

However, the tremendous variance found in nearly every indicator relating to special (and inclusive) education and disability, even among developed democracies, underscores the legacy of different, path-dependent developmental trajectories of education and social systems. Often benevolent, educational and social policies nevertheless have not yet achieved full inclusion, whether in education or other societal realms.

Rhetorically, many programs worldwide are being euphemistically renamed from 'special' to 'integrative' or 'inclusive' without significant reform of curricular contents or organizational structures. Conversely, diversity agendas are sometimes narrowed to focus on certain categories of impairment instead of more general characteristics of learners. The unintended consequences of such explicit and implicit developments underscore the importance of in-depth comparative cultural and historical analysis to explain continuity and change in education – and obstinate oppression of people with disabilities and disadvantages.

Attempting to make sense of global growth as well as persistent cross-national and intercultural differences in special and inclusive education requires both qualitative and quantitative approaches; ideally longitudinal studies and multiple levels of analysis. Education research, more than ever, will need to take on the challenge of explaining variation within and between national and regional contexts – and the resulting effects on students and social groups (e.g., Artiles, Kozleski & Waitoller, 2011; Booth & Ainscow, 1998). However, most existing research on special and inclusive education has not utilized international and comparative approaches. Similarly, students participating in special education programs are often excluded from large-scale assessments, challenging comparative analyses.

Thus, this chapter begins with a brief overview of why comparative studies are vital for an understanding of the worldwide expansion of special and inclusive education as well as specific rights and resources or disadvantages and stigmatization, in particular places, that have accompanied this rise. Next, central dimensions of comparison across space and time, from classification and categories to learning opportunities and outputs as well as outcomes are discussed. Then, selected contemporary findings, mainly from countries in North America and Europe with long special education traditions, exemplify relevant indicators and emphasize research and policy implications of contrasting school cultures and structures. Identifying contemporary tensions and dilemmas of special education, the next section raises questions that challenge contemporary stakeholders, advocates, and policymakers. Finally, research gaps that demand attention are discussed, as is the future of (comparative) research on special and inclusive education.

WHY COMPARATIVE SPECIAL EDUCATION?

The delineated significant rise of (special) education worldwide and the extraordinary heterogeneity found – from national to regional to local levels – demands explanation. The persistent diversity provides ample justification for comparative studies of special education (in English, see, e.g., Carrier, 1984; Mazurek & Winzer, 1994; McLaughlin & Rouse, 2000; Peters, 1993; Powell, 2009; Winzer & Mazurek 2011; Richardson & Powell, 2011). Diverse rationales have motivated the comparative analysis of special education.

Understanding the origins of educational systems

Especially when explicitly historical, comparative studies provide insights into the origins and evolution of educational systems. In those countries in which special education was first conceived, the founding of influential organizations, usually devoted to serving members of one impairment category, such as blindness or deafness, preceded compulsory schooling (Richardson & Powell 2011, Ch. 1). Taking Margaret Archer's (1979) exhortation to examine educational *systems* seriously, engagement with the development of special education and other attempts to provide learning opportunities to increasingly diverse student bodies sheds

light on the original nation-state principles undergirding the provided right – and duty – to participate in schooling. Where these original schools and institutions still exist, they testify to the durability of special education, the universality of impairment and disability, and different understandings of and provisions for students 'with special educational needs'.

Evaluation of the status quo

Studies in comparative and international education, by providing new frames of reference and relativizing taken-for-granted national narratives, also enable us to evaluate the existing situation in any given space. Often, such comparisons guide policy reforms, either as sources of inspiration or as concrete good or best practices used in policymaking or implementation. Across the globe, but also within regions, education systems and their varying forms of organization to promote learning and provide individualized support differ. For example, in some European systems, almost all students are taught together, such as in Italy and Norway. By contrast, the spatial separation of regular and special education in 'binary' systems of special and regular schools, such as in Belgium, France, Germany, and The Netherlands has been largely retained. Many nation-states in Europe and North America, however, have reformed their systems so that a 'continuum' exists – from segregated to fully inclusive settings (see EADSNE, 2011). Change in most places has been gradual: from complete exclusion to full inclusion along a continuum from segregation (separation between buildings) to separation (separation within a building) to integration (mainstreaming; most of the school day in regular classes) up to fully inclusive classrooms all students may access (Powell, 2011). Even the most segregated systems are moving gradually in this direction – mandated by international charters and regional laws (such as those within the European Union) and encouraged by the naming and shaming of global benchmarks and league tables. Such persistent heterogeneity calls upon comparative and international education to explore differences and explain why these continue to exist in the face of on-going expansion as well as global mandates for inclusive education.

Providing case studies of social constructions of 'dis/ability' and 'ab/normality'

Comparative studies often implicitly or explicitly provide case studies of the social construction of dis/ability (see, e.g., Hacking, 1999). Over the past several decades, the multidisciplinary field of disability studies has grown in many countries to explore the social, cultural, and political conditions and contexts that define impairments and illnesses and disable people (e.g., Albrecht, Seelman & Bury, 2001). Especially at the beginning of the life course, schooling is the primary societal institution that identifies, defines, and reifies differences in particularly-valued abilities (Powell, 2011). As Erving Goffman (1961) and Michel Foucault (1988) have emphasized, examining 'abnormality' is an advantageous strategy to better understand 'normality'. Similarly, if we wish to investigate how 'ability' has been constructed, then studies of 'learning disability,' 'learning difficulties,' and 'special education needs' are useful.

Because we think through institutions and classifications (Douglas, 1986), comparisons of these foundations of social life facilitate the unmasking of taken-for-granted assumptions about schooling and citizenship. The moral imperative to do so derives from the location of special education programs and their

clientele: at the nexus of human rights, disadvantages, and stigmatization. Thrown into stark relief by the human rights revolution, teachers and schools are confronted with dilemmas of difference, disability, and inclusion (see Norwich, 2008). Educational decision-making must adjudicate whether to classify students as having special educational needs, how to prioritize provision of additional resources to access certain curricular offerings, and in which settings to educate students – in general or special schools and classes. Students receiving special education support often suffer stigmatization and low status. At the interactional level, such dilemmas confront individuals, while at the societal level we see the result of aggregated choices about the options provided by various forms of schooling. Comparative approaches facilitate such analyses, yet which aspects and dimensions of special education can usefully be compared internationally and interculturally?

COMPARATIVE DIMENSIONS

Categories and classification

To investigate special and inclusive education and their institutionalization across time and space, first the categories – their definitions and meanings – applied to students must be analyzed. Which social differences are perceived as relevant? In special education, considerable cultural differences and change in dis/ability classification emphasizes the importance of historical analysis. Categorical boundaries between groups of students are continuously being redrawn, given shifting paradigms of normality within education and society (see Davis, 1995), the invention and careers of particular diagnoses and therapies (like attention deficit/hyperactivity disorder, see Malacrida, 2003), and the global diffusion of particular categories, such as the three cross-national categories used by the OECD (2007) in its comparative studies: students with disabilities, with learning difficulties, and with disadvantages.

Categorical boundaries give rise to new groups of students, yet the meanings ascribed to these labels are relative, depending on local contexts. Interculturally, even such a category as 'learning disability' varies dramatically in its relevance and size, from the largest category in the United States or Germany to an unknown category in Japan (Powell, 2011). Moreover, where the US definition refers mainly to a discrepancy between tested IQ and school performance, in Germany, 'learning disability' has little connection to psychometric diagnosis; it has developed as a more legitimate, profession-based label than referring to students' social and cultural disadvantages and it justifies the receipt of additional or specialized resources, but also results in stigmatization and, often, schooling in segregated settings (Pfahl & Powell, 2011).

Over the past century, developments in clinical science and special education as well as the 'medicalization of society' (Conrad, 2005) have led to further specification and differentiation. However, these categories and the elaborate classification systems that they make up have been resolutely critiqued as stigmatizing, as ignoring the contingency and complexity of human diversity, and as hardly beneficial to those so classified (Florian et al., 2006). Ambivalent and often contentious, classification as 'having special educational needs' requires extensive mediation between positive and negative consequences: provision of additional resources and rights, on the one hand, but prevalent stigmatization, even institutionalized discrimination, frequently lasting throughout the life course, on the other. Nevertheless, analyzing these categories is a precondition for grasping the relative power of professional groups and disciplines and for understanding cultural priorities and policies relating to dis/ability in a particular context. Informed by disciplinary knowledge, classification

systems and groupings or tracks based on 'ability' have been organizational, pedagogic, and political responses to the increasing heterogeneity of student bodies.

Learning opportunities, services and supports

Second, in which settings are learning opportunities provided, and with what kinds of services and supports? Once outright exclusion from schooling has been overcome, the question turns to how students are allocated within differentiated educational systems and thus which opportunities to learn they enjoy. Such structures can be grouped in a tripartite typology of dual, multiple, and unitary: countries with two parallel tracks (general schools and legally or organizationally separate special schools); countries providing multiple tracks along a continuum of settings and services; and countries with one school with the goal of educating (almost) all students in inclusive classrooms (EADSNE, 2011). Ranging from segregation and separation to integration and inclusion, these learning opportunity structures have been built to foster learning. Yet they have been shown to both facilitate and hinder learning, especially when participation is (highly) stigmatizing and associated with low expectations, less peer interaction, and reduced curricula. The types of educational organizations and chances to participate meaningfully provided in them greatly affect achievement levels and the resulting attainment, measured in the form of certificates.

While individual characteristics are crucial to educational performance and attainment, the cross-national differences in constructions of and organizational responses to recognized learning support needs emphasize that institutional, not solely individual-based, explanations are required to make sense of group differences across time and space (Powell, 2011). Indeed, large-scale cross-national studies of school performance from TIMSS to PISA repeatedly present immense cross-national variation that calls for more attention to historical, political, and social factors, from principles and values, via curricula and standards, to regulations and rights in educational systems (Baker & LeTendre, 2005). Contextual analyses are needed to explain why these differences developed.

Qualifications, transitions, life courses

Thirdly, focusing on individual educational careers and life courses, what qualifications are earned and how are individuals' transitions structured? Is access to and support within vocational training or higher education given, and with what consequences for labor market integration? What will the future participation and life chances of graduates of these types of educational programs be? These different systems have significant impacts on transitions into training and into labor markets as well as on other outcomes, from health and well-being to political and social participation (e.g., OECD, 2003; Tomlinson 2013). Access to post-secondary education and training has increased not only in developed countries, but around the world (Schofer & Meyer, 2005). With expansion has come the rise in expected educational qualifications, which, in turn, disadvantages less-educated individuals (Solga, 2002). For example, the comparison of Austria, Germany, and Switzerland shows that prevalent segregation and numerous barriers result in limited access to vocational training and higher education for those who participate in special education programs (Powell, Felkendorff, & Hollenweger, 2008). In these countries, most tertiary-level students with disabilities and

chronic illness have attended regular schools, in part because access, even for graduates of special schools, is limited by law. As rights and obligations change from secondary to post-secondary education, those professionals providing supports must collaborate to ensure successful transitions. Addressing these issues beyond schooling, the UNCRPD emphasizes that not only is *de*segregation necessary, but more generally the elimination of discrimination (Article 5) and the enhancement of accessibility (Article 9) – if people with disabilities are to maximize their capabilities throughout the life course.

SELECT FINDINGS FROM COMPARATIVE SPECIAL EDUCATION

In comparing special education around the world today, debates are on-going about how best to organize schooling, to deal with deviant behavior, and to address social disadvantage. We find continuity in the settings in which supports are offered, with segregation and separation still prevalent. At the same time, we find changes, with the gradual strengthening of human rights, 'education for all', and inclusive education becoming transformative in many places. Here, some key developments are sketched, all of which would benefit from further in-depth comparative research.

Firstly, the global and regional variance and change over time demonstrate that the current situation in any given locale does not have to remain so – and there is no clinically-defined necessity for certain school structures or settings in which to provide individualized educational supports. While in many societies, children with disabilities and disadvantages continue to be excluded, in others, nearly all children participate in their local (school) communities, receiving support and services to succeed. Around the world, we find contrasting models that have been implemented. This calls for further exploration of the principles, standards, and policies in these areas – to understand the values and choices undergirding these systems.

Secondly, the continuing rise of education standards, together with recognition of the human right to (inclusive) education, has shown a number of paradoxical consequences. In many countries, despite the laudable expansion of education, we find the increasing stigmatization and labor market marginalization of less-educated young adults (Solga, 2002). The institutional linkages between education and employment systems and interactions between special and inclusive education challenge comprehensive reform agendas like that of the UNCRPD. Indeed, 'resistance to inclusive education stems not only from a web of ideological positions, entrenched interests, and education and social policies, but also from the organizational location of special education: at the nexus of education and social policies, a row ahead of social assistance and labor market programs for disadvantaged youth and young adults with disabilities, and parallel to the juvenile justice system' (Richardson & Powell, 2011, p. 280). Thus, reforms of special and inclusive education imply significant changes in other fields and organizations. Given the lack of societal engagement with or policy-makers' attention even to educational transformations of such magnitude, sustained efforts are needed to analyze these institutional complementarities – and to gauge the foreseen and unintended consequences of such reforms.

Thirdly, the vulnerable 'Achilles heel' of special education – disproportionality in participation rates of certain social groups – endures. Worldwide, we find persistent overrepresentation of some groups of migrant and ethnic minority youth, children from families with low socioeconomic status, and boys in special education (see, e.g., Artiles & Bal, 2008; Dyson & Gallannaugh, 2008; Gabel, Curcic, Powell, Kader, &

Albee, 2009; Losen & Orfield, 2002). On the one hand, this exemplifies the significant additional resources and supports offered through special education programs as well as special education's considerable authority. Often, the resources are only available to those students officially classified. On the other hand, classification as 'having special educational needs' may serve to legitimate differentiation into stigmatized categories and the allocation to low-status tracks, when such placements on the basis of other characteristics could be and regularly are considered discriminatory treatment. Certainly, the awareness, recognition, and appreciation of diversity and equalized participation, as envisioned in international charters and best practice models, looks very different from contemporary realities in many places.

Fourthly, both returns to education and the costs of educational exclusion and segregation over the life course have thus far not been sufficiently calculated. The enormous costs resulting from the lack of education in the resulting labor market marginalization (and the ensuing social assistance transfer payments) must be estimated (Tomlinson, 2013). Yet the vital benefits of education and training are not only economical, but reflect fundamental social and individual values, such as citizenship and societal participation. While few would dispute that investments in education are significant for both the enhancement of individual capabilities and the amelioration of social problems, often education reforms have been blocked with reference to lacking finances. Yet violations of human rights – including the right to inclusive education – cannot be justified by such arguments.

Fifthly, the implementation of inclusive education programs implies, to varying extents, the *de*institutionalization of special educational systems (e.g., Powell, 2011; Skrtic, 1991; Tomlinson, 2013). The struggle for control over the interpretation of the global norms relating to inclusive education and implementation processes must acknowledge special education's embeddedness in the overall education system. Reforms of this magnitude call forth resistance of powerful groups, such as administrators and special educators invested in the status quo, that mobilize to counter such changes.

Finally, the fundamental transformation required to realize inclusive education systems is justified by the belief that development of an inclusive society requires an inclusive education system. Core educational goals of democratic society are not compatible with on-going stigmatization or segregation of particular groups. In sum, persistent disparities and disproportionality, rising standards alongside recognized human rights, the long-term individual and societal costs of exclusion and discrimination as well as needed investments in schooling and individualized supports set the stage for continued tensions as societies negotiate the complex relationship between special and inclusive education.

TENSIONS AND DILEMMAS OF SPECIAL AND INCLUSIVE EDUCATION

A lasting dilemma of special education, and a source of ambivalence, is that its professional and institutional practices, contrary to popular belief, have hardly been shown to be conducive to either educational excellence or equity. Instead, as Skrtic (1991, 1995) has persuasively argued, an 'adhocracy' that stresses collaboration and problem-solving in responding to individual learners would be far more beneficial to reach both of these fundamental goals of schooling. Similarly, international charters from UNESCO's Salamanca statement (1994) to the UNCRDP, discussed above, have called into question the taken-for-grantedness of special education settings. If organizational forms that segregate or separate students are losing legitimacy, they

nevertheless remain ubiquitous in most nations where elaborated special education systems exist. Thus far, fully inclusive education systems – going beyond the focus on impairments, difficulties, or disabilities to embrace and learn from diversity – have been realized in few countries. Yet the UNCRPD emphasizes accessibility and a range of other measures to ensure students' educational and social participation, regardless of their dis/ability status, thus including children, youth, and adults of different social and educational, ethnic, or migration backgrounds and of different genders. In mandating inclusive education for all, including vocational training, higher education, and lifelong learning, the UNCRPD challenges the legitimacy of segregated schooling even as it demands that policymakers address myriad structural and cultural barriers to inclusion.

This shift towards inclusive education occurs at the same time that rising common academic standards and output measures of achievement and attainment place pressure on general education to increase school performance levels and accountability (Baker & LeTendre, 2005). Not only the cross-nationally comparative OECD-PISA studies (OECD, 2000) have led to the exclusion of learners who do not test well or require additional support to reach their learning goals. The rising popularity of benchmarks, league tables, and rankings of all kinds often reduces comparisons to descriptions that cannot address, much less answer, the questions of *why* these differences came to be. Further, such exclusions from large-scale assessments make comparisons across countries more challenging, highlighting the need for culturally and historically sensitive studies that address contextual factors instead of seeking answers only from aggregated individual-level data.

These forces in different directions have led to a seeming paradox: the simultaneous rise in rates of both segregated schooling and inclusive education (Richardson & Powell, 2011). These contrary developments are embedded in the larger phenomenon of education's growth everywhere and at all levels. Increasing participation in formal schooling has led to ever-higher attainment rates in secondary and tertiary education and ever-longer careers in schooling. Rising standards reveal starkly those who do not achieve (much) school success. With ever more students classified as 'having special educational needs' and the diffusion of the global norms of 'education for all' and inclusive education, the rates of segregated and inclusive schooling rise at the same time.

Increasing inclusive education rates do not automatically reduce segregation rates. For example, in Germany, where the UNCRPD took effect in 2009 and inclusive education has been developed and practiced in some states (*Länder*) for decades, attendance in special schools continues to grow, especially rapidly in Eastern Germany. In 2008, more students than ever before, 480,000, or 6% of all students of compulsory schooling age, received some special education support. Of those, 89,000 (18%) attended regular schools. With that, Germany is one of the European countries with the highest levels of school segregation (EADSNE, 2011; Powell, 2011). Thus far, in terms of schooling, Germany has made few and gradual changes toward meeting its commitment to the UNCRPD; this is so especially due to the institutionalization of special schools, professional interests, and federal governance. In another federal country, the United States, there is a long tradition of special classes within regular schools. Indeed, as one of the countries first committed to achieving inclusive education, the US has a much higher inclusion rate – over half of all students with special educational needs spend most of their school day in the regular classroom – and less than 4% of students with special educational needs attend special schools or residential institutions (Powell, 2011). Whereas Germany has a special education system built upon interschool segregation, the US system is

organized around intraschool separation. Professions, parents' associations and social movements have proved successful, but not in transforming the 'institutional logic' of the education system: from separation (US) or segregation (Germany) to (full) inclusion (Powell, 2009). The UNCRPD strengthens the advocates of sustainable inclusive education, but implementation is mostly an incremental, path-dependent process, not one of fundamental transformation. Especially in federal countries such as Germany and the US, there is a persistence of state and local disparities. Despite international objectives, standards, and treaties – and recent advances in inclusive education practices – neither country's education system is fully inclusive as the UNCRPD mandates.

Such dilemmas cannot be explained solely by analyzing inclusive *or* special education, whether conceptually or empirically. Rather, we must explore the drivers of change in these two fields jointly – and beyond them. The domain of special education stretches far beyond the boundaries of general education, as its organizational field includes health care systems, vocational training programs and transition planning, and labor markets (Richardson & Powell, 2011). Because special education serves many of the most disadvantaged youth, it also shares an organizational community with the juvenile justice system. Special education thus contributes to the functioning of these other systems and vice versa. This interconnectedness of special education to such a variety of neighboring institutions makes proposals for transformative change more difficult to achieve. Particular groups of teachers, administrators, and other professionals have little interest in systemic shifts that would limit their autonomy or require them to assume additional roles, especially when political support for financing such reforms is lacking. Thus, despite manifest good intentions and dedication to serve, considerable inequalities in learning opportunities and institutionalized discrimination persist.

In many countries, segregated settings are still among the dominant modes of providing special education support and services; however, such organizational forms have been called into question. Indeed, segregated schooling has become synonymous with limitations, exclusion, and low social status (e.g., Tomlinson, 2013). More than ever before, being disabled remains linked to being less educated than one's peers. Conversely, attaining less education leads to an increased risk of becoming disabled, of experiencing poverty, and of suffering social exclusion (see, e.g., OECD, 2003, 2004, 2007). Indeed, following educational expansion, youth with less education are increasingly identifiable and stigmatized, which leads employers, who more than ever believe that school performance is the most trustworthy indicator of future labor market success, to exclude them from the start (Pfahl & Powell, 2011; Solga, 2002). Recent increases in rates of classification into special education, for example in North America and Europe, will likely exacerbate labor market marginalization of youth with disabilities and disadvantages (see Tomlinson, 2013).

Yet international comparisons show that some countries successfully implement inclusive education reforms, even when this demands the transformation of their education systems. Within Europe or among the OECD countries, the rates of inclusive education vary from under 10% to more than 90% (EADSNE, 2011; OECD, 2007). This range emphasizes the gap between the global rhetoric of inclusive education and the realities of institutionalized organizational forms in special education, whether special schools, as found in Germany, or special classrooms, prevalent in the United States. Such variation even among economically-dominant, democratic countries underscores the continuity in special education and the persistence of particular organizational forms, which results from interconnections with other institutions and cultural values, such as individualism or collectivism. Whereas many societies emphasize group belonging regardless of

student characteristics, others have favored individual education rights and choices. Further, individuals and groups differ in whether they value the resources special education offers more than they fear the stigmatizing effects of its labels – or vice versa.

Inclusive education promises to more fully utilize the diversity of interests and abilities found among all groups of children to develop each individual's intellectual and social competencies. Responding to these principles and global trends, supranational governments, nation-states and (non-)governmental organizations around the world – such as the European Union, UNESCO, The World Bank, or the Open Society Foundation – have committed themselves to 'education for all' and to inclusive education (e.g., Peters, 2003). Globally, inclusive education continues to broadly spread as an objective and as a norm. Locally, advocates and activists in the disability rights movement have succeeded in increasing access to integrated schools or even inclusive classrooms.

However, transformative education reforms that would do most to enable inclusive schooling have thus far been hindered by ideological, normative, and political resistance. This is partially because the paradigm shift toward inclusive education not only affects special education deeply, but also challenges the status quo, as elaborated in interconnected education, economic, and justice systems (Richardson & Powell, 2011). Thus, in many countries, battles continue at the nexus of education and social policy (Allmendinger & Leibfried, 2003). The results of these conflicts influence whether and when countries around the world will achieve their shared goal of inclusive education.

The concurrent growth of segregation and inclusion rates emphasizes not individual characteristics, but rather contrasting organizational forms that provide learning opportunities. The coexistence of school segregation and inclusion depends on continued expansion in the group of children and youth who are labeled and, once officially classified, receive additional resources to access the curriculum. However, the logic of segregation that posits separation as necessary to provide such individualized learning supports contradicts the powerful idea, codified in international human rights charters, that to strengthen democracy and enable active citizenship requires nothing less than inclusive education for all. Research in education and related fields has shown that inclusive education, when understood as a complete educational concept guided by established principles, has been shown to be beneficial in creating a community for all learners (e.g., Sapon-Shevin, 2007).

Interdependencies between special education, general education, and other institutions along with vested professional interests have thus far hindered the transformations needed to realize inclusive education for all. Yet the considerable differences between and within nation-states also demonstrate that change is not only possible, but also that on-going education reforms and shifts in local practice have achieved inclusive schooling in many regions of the world.

RESEARCH GAPS AND THE FUTURE OF (COMPARATIVE) RESEARCH ON SPECIAL AND INCLUSIVE EDUCATION

Transformative education reforms need broad societal support and expressions of political will, locally and nationally. Comparisons of the conditions and consequences of educational reforms are needed. Given the encompassing challenges brought about by the UNCRPD, monitoring its implementation must proceed on multiple levels of analysis, from the supranational and national to the regional and local, especially in countries

with decentralized political control of educational policymaking, such as Canada, Germany, the United Kingdom, or the United States. The perspectives of social groups and individuals most affected by reforms based on its principles deserve more attention than they have garnered. Such multilevel analyses are necessary, since supranational charters, objectives, and norms must be interpreted – and will lead to diverse results at lower levels.

Relevant disciplines should make connections between the macro, meso, and micro levels to draw a comprehensive picture of the on-going reforms of special education and inclusive education – and their consequences for educational achievement, equity, and attainment. Thus far, the division of labor between disciplines has led to too little synthesis and accumulation of scientific results. Discourse analyses, combined with examination of educational and social policies at international, national and local levels and with enquiries into institutions and organizations are needed to reveal the forces of persistence and change. Investigations of educational processes, whether in formal or informal learning environments, and interactions between members of different social groups can show how to improve supports and services. Research into selection mechanisms and, especially longitudinally, the consequences of participation in different learning environments are needed to understand the costs and benefits of contrasting educational settings.

The activities of the global disability movement and advocacy coalitions that mobilized to devise the UNCRPD and ensure its enactment ought to be further explored and brought up-to-date (see, e.g., Charlton, 1998; Quinn & Degener, 2002). Further, participatory research approaches – under the motto 'nothing about us, without us' – would ensure that the expertise and experiences of stakeholders in identifying and implementing needed improvements increases the relevance and potential of reforms. Estimates, both quantitative and qualitative, of the enormous long-term costs of exclusion, segregation and stigmatization and lack of education are urgently needed, as are legal studies of how the UNCRPD has been effectively implemented, even when confronting barriers in governance. As we continue to improve education systems and catalog the numerous and complex barriers to inclusion, whether among more 'individualist' or 'collectivist' societies or among countries at different levels of development, we should also identify – via cross-national and cross-cultural studies – those factors most suitable to ameliorate exclusion and those which have contributed most to achieve educational and social inclusion.

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21

A Disability Studies Frame for Research Approaches in Special Education

Douglas Biklen, Fernanda Orsati, and Jessica Bacon

INTRODUCTION

In 1960, disability scholar Burton Blatt claimed, 'We do not know how to evaluate special education because we, as yet, do not know what special education should be … Experimentation with new and unorthodox methods and materials must be encouraged' (p. 55). Blatt's research on institutional abuse, deinstitutionalization, and inclusive schooling for all children used research tools designed to uncover special education's complexity. His work would today be seen in the traditions of autoethnography, photographic essays, and historical methods, reframing understandings of disability. Blatt and Kaplan's (1966) groundbreaking exposé, *Christmas in Purgatory*, used photography as a qualitative methodology. In vivid, reflective essays and photographs, they captured the abuses of institutional 'back wards' where people with developmental disabilities languished. Herein Blatt foreshadowed the emergence of disability studies and its influence on research related to education of students with disabilities.

The field of special education originated from good intentions (Gallagher, 1998), to at once educate students with disabilities *and* maintain the norms of regular education. Late 19th-century compulsory attendance laws brought many children into schools that were viewed by educators as difficult to teach. 'Special Education', first introduced in the U.S. at a meeting of the National Educational Association in 1902, comprised specialized and segregated classes dedicated to the education of students labeled as disabled (Osgood, 2005).

In this context, researchers asked: What is normal? How can we measure it? How can we treat what is not normal? Early researchers, including Binet and Goddard, advocated using 'intelligence tests' to locate disability. As eugenic philosophies emerged, disability and poor intelligence test scores began to be linked with negative cultural value (Danforth, 2009). As Skrtic (1995) explains, social professionals in modern society assume the 'authority to interpret normality, and thus the power to define and classify others as abnormal and to treat their bodies and minds' (p. 41) subjecting bodies into investigation, surveillance and treatment with practices of medicalization, objectification, confinement, and exclusion. Segregation followed from two fundamental arguments: it would be efficient for classroom and school operations, and separate programs would be in disabled children's best educational and psychological interests (Osgood, 2005).

During most of the 20th century, logical-positivism undergirded the field's knowledge base (Paul, Fowler, & Cranston-Gingras, 2007, p. 425). The scientific method evolved as a presumed pathway for reaching truth, including the discovery of interventions necessary for improving the student's functioning (Gallagher, 1998). The idea was that through special education, students 'will arrive at the point where the course of our teaching processes can be predicted and controlled' (Gallagher, 1998, p. 495). The knowledge base that emerged out of

logical-positivism continues to dominate the field of special education (Skrtic, 1986), however, the field of disability studies now threatens that dominance by dramatically shifting research conversations in special education.

DISABILITY STUDIES

A central tenant of disability studies is 'the idea that disability is a social phenomenon' (Taylor, 2006, p. xiii) where, as Gabel explains (2005), 'disability is understood as a form of oppression' (Gabel, 2005, p. 2). Gabel prefers the term 'social interpretation' to 'social model', arguing that social interpretation captures a 'wide array of disability theories (e.g., disability identity, disability embodiment, disability discourse)' (Gabel, 2005, p. 2). In either case, disability studies defines disability as *embodied*, meaning that while disabilities (e.g., cerebral palsy, autism, and deafness) have a physicality to them, disability is, fundamentally, 'created' in social and cultural experience. Therefore, the *meaning* of the disabled body, as any body, shifts across contexts, historical moments, and ideological frames. Thus a body can be read as having an intellectual disability or not, depending on prevailing definitions at the time, or as requiring segregation or not depending on geographic location, or as being impaired as a direct result of ethnicity if living in a time of virulent racism.

The field of disability studies emerged parallel with the minority status/disability rights advocacy of the 1970s. It revised the disability rights perspective, arguing more forcefully against clinical authority. Erevelles (2005) critiques the medical model, explaining that it is not that the body does not exist or that there are not differences in bodies, but the body gets 'read' by others, and in the case of disability, is often handed over to clinical specialists for diagnosis, educational prognoses, and placement. The social model of disability rejects this pattern of clinical authority, arguing instead that understandings of disability are imposed on impaired or different bodies and enforce unnecessary and unwanted isolation and exclusion.

Thus, disability studies disrupts the traditional narrative, which typically seeks to locate the problems as residing within the individual. Instead it asks different research questions. What is behind normative practices, beliefs, and assumptions about disability in special education? (Ware, 2009). What are the results of relying on a medicalized understanding of disability, especially utilizing it to diagnose, prescribe, and treat conditions? How does institutionalized oppression affect special education systems? (Gabel, 2009). How is clinical knowledge itself shaped by socio-cultural understandings?

THE PROMISE OF A DISABILITY STUDIES APPROACH TO RESEARCH

Along with new questions about special education have come new research approaches to answering these questions. Disability studies provides and emphasizes methods which offer a chance to; a) foster a democratic ethos; b) question a static view of difference; c) address policy and socio-cultural context as distinct from clinical; d) use interdisciplinary approaches and; e) draw on narratives to presume competence.

FOSTERING A DEMOCRATIC ETHOS

In an essay entitled *Disability Studies and Inclusive Education*, Connor, Gabel, Gallagher, and Morton (2008) outline the tenets of disability studies in education (DSE) where a democratizing research agenda often includes and/or is led by people with disabilities. Connor and his colleagues argue for a literature that

'privilege(s) the interests, agendas, and voices of people labeled with disability/disabled people', driven by a commitment to 'full and meaningful access' in all aspects of society, written from perspectives that 'assume competence and reject deficit models of disability' (Connor et al., 2008, p. 448). Researchers without disabilities should always assume an 'emancipatory stance for example', they argue, 'working *with* people with disabilities as informed participants or co-researchers, not 'subjects'" (p. 448).

Other researchers and disability activists have championed this 'nothing-about-us-without-us' idea (Charlton, 1998; Kitchen, 2000). Krogh and Lindsay (1999) utilize participatory and action research, where research is approached as a partnership between the researcher and the participant, and immediate practical steps for creating change based on research are outlined. In this study, Krogh (researcher) and Lesley (person with a mobility disability) partnered to create and implement the research plan, revealing how Lesley uses alternative augmentative communication devices to engage social media. Together they analyzed, wrote, and disseminated the research.

A similar self-conscious, reflexive orientation, characterized by a back-and-forth between researcher and the person with a disability occurs throughout Biklen's *Autism and the myth of the person alone* (2005), where Rubin, Mukhopadhyay, and others converse with the ethnographer/researcher to elucidate how they experience autism in the world. A related form of research that informs special education is the autoethnography, beautifully illustrated by Valente (2011) in his book, *d/Deaf and d/Dumb: A portrait of a deaf kid as a young superhero*. Valente casts himself in the genre of scientific storytelling, explaining how he experiences deafness in a hearing culture and how children are brought up to know or not know Deaf culture. He injects himself into the middle of the work – 'I chose autobiographical narrative to create a dialogic mirror', (p. 14). His choice of autoethnography is not merely a literary device, but acknowledges the politics of his position/stance as an affected person: 'I am simply not ready to offer any concessions to the machinations of hearing-world domination' (p. 13).

Other elements of the democratic framework call for research to view disability as an element of human diversity, to embrace multiculturalism, to acknowledge the disability rights movement, and for disability history to be taught, leading to a conceptualization of a 'positive disability identity' (Connor et al., 2008 p. 449). This signals a withdrawal from the historical practice of granting clinicians nearly exclusive clinical authority, turning instead to dialogue in which people with disabilities have a prominent voice.

Gabel represents this new balance of voices by asking, 'How can students with significant educational needs get an appropriate education (i.e., benefitting from clinical expertise) while simultaneously remaining full citizens of the school community?' (Gabel, 2005, p. 10) Far from contradicting the world of clinical technique, disability studies has the potential to inform and even transform it, making it more democratic.

QUESTIONING A STATIC VIEW OF DIFFERENCE

Disability studies interrogates disability labels and aspects of identity as nuanced and complex. Too often in research, categorization is seen as a primary element around which choices are made about students, with difference seen as a static feature (Ferri & Connor, 2006), where disability labels can cause substantive harm to students (Smith, 2010). Michalko (2001, 2002) exemplifies the complexity of disability when he integrates his experiences as a blind person in interaction with others. For Michalko, 'Disability is not a static entity

amenable to definition in the empirical sense' (Michalko, 2002, p. 14), but a set of conditions that are fluid and always shifting (Michalko, 2002).

Another example of the concept of disability as fluid comes from Goode in his now classic article, '*Who Is Bobby*' (1992). Here, Goode attempts to answer the question of the title by analyzing and manipulating videotapes of Bobby's interactions in a variety of settings, including the Sin San board and care facility where he lives. Official records of Bobby documented only a lack of competency. When investigated more thoroughly, the researchers saw patterns of Bobby's complex reactions to the social situations he encountered. Goode and his team were thus directed away from seeing Bobby as deficient and instead 'towards a person like ourselves who happened to have deficits in some areas and skills in others' (p. 211). This research paved the way for the adoption of research methods which acknowledge the power of context, embrace a lens of assuming competence, and provide a vantage for seeing people beyond a clinical or medical label.

In another field research study, Collins, like Goode, unmasks competence where official definitions see only deficits (2003). Collins (2003) describes the development of her relationship with Jay, an African American student labeled as having emotional disturbance. Through ethnography, she discovers how a description of the student based on a disability label, highly determined by racial profiling determine a teacher's expectations and reaction towards him, limiting any chance for him to excel in class. In contrast, Collins (2003) steps outside the deficit discourse, and comes to understand Jay in a variety of settings where he demonstrates exceptional abilities. She operates from an ethic of care, similar to Goode's 'emic' perspective (1992) showing how he can be viewed as 'at promise' and not 'at risk' (Collins, 2003, p. 194).

ADDRESSING POLICY AND SOCIO-CULTURAL CONTEXT

Law and policy invest professions with authority to make diagnoses and, often, determinations over access to social institutions (e.g., public education, classrooms with nondisabled peers), social interaction, residential location (e.g., institutionalization, group home, independent living), and employment (e.g., The Rehabilitation Act of 1973 [RA], 29 U.S.C. 701; The Americans with Disabilities Act of 1990 [ADA], 42 U.S.C.; Individuals with Disabilities Education Improvement Act of 2004 [IDEIA], 20 U.S.C. 1400; the Special Educational Needs and Disability Act in England of 2001; and the Home and Community-Based Services of 1915 Section [c]).

Early seeds of disability studies influenced the field of special education law. Disability activists, law reform advocates, certain parent associations and disability scholars banded together to make civil rights arguments about disability, demanding access to education (*PARC v. Commonwealth of Pennsylvania*, 1971) and access to community living (*NYARC v. Carey*, 1972). At a surface level at least, they challenged the authority of clinical diagnosis to deny access to education or to justify placement in dead-end, total institutions (Goffman, 1961). These laws and regulations provide a means for negotiating opportunity. In the case of IDEIA (United States Department of Education, 2004), for example, the key elements of this framework are due process, individualized planning, access to specialized services, requirements for state review, and a guarantee of free education, all primarily guided towards the provision of quality education for students with disabilities.

A variety of other research has pushed the field to understand that disability exists within an ideological and political context. Goffman's (1961) classic text on total institutions continues to shape the way policy makers

understand segregation and institutionalization for people with disabilities. Dexter's *On the politics and sociology of stupidity in our society* (1962) is an account of the political nature of disability. A more current version of his argument is found in *Smart culture: Myths of intelligence* (Hayman, 1998), a critique of the idea of mental retardation that shows the class and race connections to the everyday, as well as professional uses of the term 'retarded'. In the 1970s, Blatt also described how the political economy of disability encourages separate disability schools and classrooms, specialized associations, differential reporting structures for regular and special education teachers, and funding formulas that suggest students with disabilities are an expensive drain on school budgets (Blatt, 1977). These works influenced the policy constructions of disability towards more inclusive and democratic practices.

Unfortunately, in major special education litigation, plaintiffs' claims, court decisions and settlements have not endorsed a wholesale abandonment of clinical authority (medical model). In right-to-education and deinstitutionalization cases, the core principle that legal advocates embraced and promoted was the notion that individuals with disabilities should be served in the 'least restrictive settings' possible. As seemingly liberating as this possibility was, in reality it meant that parents, disability rights advocates and disabled people themselves needed to make case-by-case arguments to win inclusion, often in the shadow of prejudicial clinical assessments that opposed their desires and vision. Evidence abounds that legal policy is in fact insufficient to provide equity for labeled students (Barnes & Mercer, 2010) (see for example *Board of Education of Hendrick Hudson School District v. Rowley*, 1982; *Hartmann v. Loudoun County Board of Education*, 1997). Thus, disability studies prefers a legal position that sees students with a disability as akin to other discriminated-against groups (Biklen, 1988).

A recent narrowing of the definition of acceptable methodology to determine 'what works' in special education has emerged as an area of concern to disability studies scholars. The No Child Left Behind Act requires that valid research must be 'scientifically based' and defines the acceptable methodological approaches narrowly. Policy has the potential to threaten the proliferation of disability studies work being accepted as legitimate when research is narrowly defined. Giangreco and Taylor (2003) argue that this precludes a variety of approaches that otherwise inform us about the experiences of students and teachers in special education.

INTERDISCIPLINARY OPPORTUNITIES

Another promising aspect of a disability studies perspective on special education research is that it embraces multiple disciplines: 'social constructionist or interpretivist, materialist, postmodernist, poststructuralist, legal, and even structural-functionalist perspectives and draws on disciplines as diverse as sociology, literature, critical theory, economics, law, history, art, philosophy, and others' (Taylor, 2006, p. xiii). Connor et al. (2008) further suggest that disability studies' interdisciplinary orientation interfaces 'with multicultural education, the humanities, social sciences, philosophy, cultural studies, etc.' (p. 449).

Because this field of disability studies is itself so interdisciplinary, it has at its disposal a wide range of research tools and theoretical viewpoints by which to understand special education. An example of this comes from Slee (1997). At a time crucial to changes being made internationally in special education policy, he calls for the application of a sociological analysis to the field of special education in order to move away from a functionalist approach. Another example of interdisciplinary work comes from Reid & Knight (2006). They

practice what they refer to as a 'critical history grounded in disability studies' (p. 18). The authors document the ways that disability has been conflated with other identity categories, and has been built around ideologies of normalcy, contributing to the problems of disproportionality and segregation in special education. A final example of successful interdisciplinary work was evident at the Second City Conference on DSE. In 2009, the fields of special education law and disability studies merged to hold a collaborative conference. Highlights from this conference included keynotes by Martha Minow, professor of law, and Thomas Skrtic, professor of special education.

DRAWING ON NARRATIVES TO PRESUME COMPETENCE

Autobiographical accounts by people with disabilities proliferate within the field of disabilities studies. For example Asch (Asch, Rousso, & Jefferies, 2001), Mooney (2007), Linneman (2001), Wilensky (1999), Gabel (2005), and Longmore (1987) draw heavily on narrative to teach readers about in-depth experiences of having a disability. These firsthand accounts give authority for critical arguments describing subjugation, isolation, and exclusion of people with disabilities, as well as race and class-based discrimination.

Narratives also reveal how students with disabilities experience special education. The autobiographical works of Burke (2005), Mooney (2007), Jackson (2002), Williams (1994), Blackman (1999), and Bissonnette (2005) are exemplary. Each offers specific references to issues of performance, including for example managing anxiety, using technology instead of speech to communicate, fidgeting when others are quiet, and reacting to events in completely unconventional ways. Yet in each is a claim to be seen as fully entitled, to be not only accepted but also appreciated. Burke (2005) describes how schools did not always understand his deep desire to learn and his yearning to speak intelligibly. They mostly viewed him as incompetent because of different bodily and communicative responses during school. Mooney (2007) recalls feeling battered by teachers' assaults on him to silence his hyperactive body, so much so that he felt lost. Rubin (Rubin et al., 2001), who after years of being told she was retarded, concedes that she thought her communication and other performance difficulties were what retardation *is*.

Narratives challenge an essentialist interpretation of individuals (Rubin et al., 2001; Grandin & Scariano, 1986; Brown, 1970; Jackson, 2002; Michalko, 2002) and affirm the human experience, while providing a critical lens on society. Examples include Mackay (2003) describing his experience in a doctor's office, Kuusisto (1997) talking about his encounters with education and friendship, and Burke (2005) describing how his typed narratives are sometimes not accepted as communication. All the aforementioned authors confirm the importance of being given the benefit of the doubt in education, what has been referred to as the educability of intelligence (Blatt, 1999), the social construction of humanness (Bogdan & Taylor, 1989), mindedness (Linneman, 2001), 'the least dangerous assumption' (Donnellan, 1984) and presuming competence (Biklen, 1990). The principle is to shift the onus of demonstrating learning from being the sole responsibility of students to being something that emerges from contexts in which individuals interact with others.

Ethnographic research uncovers complex situational information, for example where McIlroy and Storbeck (2011) explore the identity development of deaf individuals in either mainstream or special schools for the deaf. Using a postmodern theoretical framework, the authors, considered themselves biculturally 'Deaf,

introducing an autoethnographic account to their study. They suggest that:

> deaf identity is a complex ongoing quest for belonging, a quest bound up with the acceptance of being deaf while 'finding one's voice' in a hearing-dominant society. Through the use of dialogue and narrative tools, the study challenges educators, parents, and researchers to 'broaden their understanding of how deaf identity, and the dignity associated with being a deaf person is constructed'. (p. 494)

Others use narratives to illustrate a relationship of disability constructions to political and economic forces, leading to such life conditions as segregated schooling, institutionalization, and joblessness (Charlton, 1998; Ferri & Connor, 2006; Garland-Thomson, 1997; Linton, 2006). Linton describes how people with disabilities struggle with professional authority: 'It is not the neutral, universal position from which disabled people deviate, rather, it is a category of people whose power and cultural capital keep them at the center' (Linton, 2006, p. 170). As Linton explains, disability studies attempts to reposition people with disabilities to the center, away from an image of passivity to one of control, problematizing the idea of normal by applying Garland-Thomson's reference of 'normate' to the nondisabled.

Finally, the use of narrative in research has led scholars to conceptualize reformation of schools toward inclusion of students with disabilities as part of a larger fabric of equity for all (Capper, Theoharis & Sebastian, 2006; Theoharis, 2009), as well as to critically analyze issues of race (Ferri & Connor, 2006) and other intersectionalities of oppression, topics addressed below.

DISABILITY STUDIES AND TRANSFORMATIVE INFLUENCE

Disability studies influences the understanding and practice in special education by its examination of two issues that have dominated the field over the past four decades: intersections of disability with race, ethnicity, and social class; and inclusive education.

INTERSECTIONALITY

A core agenda of research in disability studies is 'overrepresentation' (Blanchett, 2006). Dunn (1968) describes how 60% to 80% of all students served by special education teachers are from low income and minority backgrounds. It is perhaps this reality that led researchers to change the definition of mental retardation in 1973, expunging the diagnosis of 'borderline,' a category dramatically over-populated by economically impoverished children and youth. Now, consider more recent U.S. school placement in relation to skin color. The 30th Annual Report to Congress Office of Special Education Programs (United States Department of Education, 2008), finds that black students are 2.75 times more likely to be identified as intellectually-disabled and 2.28 times more likely to be identified as emotionally-disturbed than any other ethnic group. Moreover, the percentage of students classified under the IDEIA 'who were served *inside the regular class 80% or more of the day* accounted for at least 50 percent of the students in each of the racial/ethnic groups except for the black group' (p. 61). In other words, far from interrupting historic patterns of racial discrimination, including segregated schooling and inadequate teaching, special education policy may actually be used to perpetuate it (Ferri & Connor, 2004; see also Fierros & Conroy, 2002, p. 41). Unfortunately, Dunn's 1968 observation survives four decades.

Losen and Orfield (2002) explore patterns of overrepresentation of minority children by disability category

and suggest that in the U.S., the wide differences for Black and Latino students cannot be explained by social background, ability, or poverty. What exists is a 'mismatch of chasm proportion between the social, political, and cultural background experiences of its knowledge producers and the minority learners studied, placed and overrepresented in special education classes' (Patton, 1998, p. 166). Harry and Klingner's (2006) research asks the important question of why are so many minority students placed in special education? Drawing on national, state and local data as well as interviews and observations, they conclude: 'it is a result of a series of social processes that' reflects 'a set of social beliefs and values, political agendas, and historical events that combine to construct identities that will become the official version of who these children are' (p. 7). Citing 'emotional disability' as particularly open to subjective assumptions, they conclude that special education is 'fraught with ambiguity and contradiction, (where) the search for a disability results in errors that have lasting, detrimental effects on children' (p. 183). Parrish (2002) similarly finds evidence of subjectivity and inconsistency in identification practices and notes inequitable funding between urban and suburban districts that further intensifies overrepresentation of students with disabilities in the category of mental retardation. Thus, because the field of special education has moved too 'cautiously in its embrace of a research agenda or practices anchored in socio-cultural frameworks' (McCray & Garcia, 2011, p. 601), disproportionate representation has remained a persistent problem.

Overall, the critical lens of disability studies creates a crisis in special education, putting its knowledge, practices, and discourses into question (see Ferguson, 2004; Ferri & Connor, 2006; Gabel, 2009; Reid & Knight, 2006; Skrtic, 1995). Social inequalities persist in special education because they rely on stereotypical representations, encouraging bodies to conform to normalcy, creating an image of the disabled body as flawed (Garland-Thomson, 2002). Arguing against a narrow clinical perspective, McCray and Garcia (2011) say that 'without a multiplicity of voices and epistemologies at work … the complexities of … disability issues, including disproportionate representation, cannot be explored in ways that shed new light on the problem' (p. 600). They call for legitimization and multiplicity of voices; validation of culturally and linguistically responsive special education models of service delivery; and multicultural preparation of special educators. Similarly, Petersen (2006) believes that when the field of special education is able to discuss various standpoints and consider ways in which race, ethnicity, disability and gender 'intersect, rely on and succumb to each other we may begin to understand the larger picture' (p. 732). According to Smith (2010), ultimately 'disability studies understands that people with disabilities are systematically oppressed and marginalized by a dominating, hegemonic culture, founded in an essentializing ableism' (p. 7).

INCLUSIVE EDUCATION

Research in disability studies stands squarely behind an inclusion agenda as a philosophy that 'challenges ableism' (Connor & Ferri, 2007, p. 64), requiring the culture to recognize and address social injustices created by it (Valle & Connor, 2011). Hehir (2005) notes that 'education plays a central role in the integration of disabled people in all aspects of society both by giving children the education they need to compete and by demonstrating to nondisabled children that disability is a natural aspect of life' (p. 69). Inclusive education in its deepest sense is a model of democracy at work (Valle & Connor, 2011). The provision of quality education greatly enhances and maximizes opportunities for participation in society (Hehir, 2005, 2007).

Currently, 60% of almost 6 million students served under IDEA spend 80% or more time in general education (Data Accountability Center, 2010). This percentage is an improvement on past practice, due largely to the inclusive movement, in many cases spearheaded by the effort of parents (Data Accountability Center, 2010; McLeskey, 2007). However, 40% of all students labeled as having a disability are still being educated in segregated environments. Gallagher (2009) blames some of the segregation on policies where teachers' work is tied to overly scripted curricula and demands that they 'teach to the test'. Ware (2004) calls for three kinds of transformation: 1) changes led by policy and definitions of school effectiveness; 2) structural modifications to school environments and curriculum; and 3) change in the values and cultural systems of society.

Speaking to those changes MacArthur (2004) suggests that inclusive education models have to be grounded in everyday experiences of regular education, rather an expert-focused ideology of special education. Research in inclusive education brings together a broad range of interests and tools as a 'new sociology of education, critical theory and pedagogy, poststructuralist and postmodernism philosophy, feminist research, disability studies and postcolonial studies' (Allan & Slee, 2008, p. 33). Engagement with a disability studies inquiry would, in Ware's estimation, 'interrupt the "authorized" silence among educators […] in unexamined schooling practices' (2009, p. 108). With this critical perspective research and practices in special education would finally be able to tackle its unexamined discourses of cure, care, and compliance around disability (Ware, 2009). In keeping with the 'nothing-about-us-without-us' slogan of disability rights activists, methods in disability studies and inclusive education need the participation of 'disabled people and (should) use their expertise … in their struggle against oppression' (Oliver, 1992), should include collaboration with parents and teachers (MacArthur, 2004), and should incorporate reflection and analysis of the researcher's ideologies and goals (Allan & Slee, 2008) with the aim for an authentic inclusive education (Gallagher, 2009).

A great deal of research on inclusive education has begun to incorporate these goals. Various authors have documented the positive peer relationships that emerge when students with disabilities are included in regular education settings (Diamond, Hestenes, Capenter, & Innes, 1997; Hunt, Farron-Davis, Becksted, Curtis, & Goetz, 1994; Kennedy, Shikla, & Fryxell, 1997). It has also been noted that students with disabilities academically outperform their segregated peers (Baker, Wang, & Walberg, 1995; Fisher, Roach, & Frey, 2002; Giangreco, Cloninger, & Iverson, 1993). Moreover, research indicates that students without disabilities make impressive academic strides when they are learning in inclusive environments (Cole, Waldron, & Majd, 2004).

Other literature has investigated how to successfully implement inclusive practices. Causton-Theoharis, Theoharis, Bull, Cosier, and Dempf-Aldrich (2010) report on experiences of teachers and major stakeholders involved in school reform efforts. They find schools improve when teachers express beliefs that: all students are members of general education, inclusive services benefit all students, and teachers and specialists, including assistants must collaborate. The participants also describe barriers to an inclusive model: lack of time to collaborate, negative teacher attitudes influencing school climate, and lack of shared understanding and reflection on inclusion. Similarly, in a study of inclusion involving students classified as intellectually impaired, Ashby (2010) finds that there is a profound construction and internalization of normalcy operating in the school, even by the students. Ashby suggests that student differences should be explored and dealt with in an open way by recommending that 'school personnel must first acknowledge how unexamined norms work to

exclude certain students and move towards a broader and more inclusive conceptualization of performance' (p. 356).

Related to this, recent research suggests that traditional rationales for separate education are not in fact borne out in practice (Causton-Theoharis, Theoharis, Cosier, & Orsati, 2011) According to this research in segregated settings, issues surrounding community, distraction-free environments, specialized curriculum/instruction and behavior management are often not adequately addressed. Thus the stance that teachers adopt regarding students with disabilities shapes what teachers consider possible. Giangreco (2007) describes how a teacher's 'ability for teaching students with disabilities grew out of her belief that the core of teaching and learning was the same, regardless of whether a student had a disability label' (p. 35). Giangreco (2007) explores two approaches for effective inclusion: multilevel curriculum and curriculum overlap. Both adaptations of curricula involve planning for a diverse ability-level group of same-age students, where all students share an activity, and each student has an individual learning outcome, with appropriate level of difficulty for them.

Researchers have also connected investigations of the effectiveness of multicultural education with special education and inclusive education (Sapon-Shevin, 1996). Sleeter and Stillman (2007) use interviews and observations to describe high-performing teachers in racially and economically diverse classrooms that navigate accountability pressures and yet meet student's diverse needs. The authors called their use of standards *strategic*, balancing between covering everything and engaging all students deeply in meaningful learning (Sleeter & Stillman, 2007).

CONCLUSION

Considering Blatt's early questioning of special education, much has happened since. At the heart of this transformation has been the movement within the research community to a multidisciplinary framework that admits, even embraces, complexity, subjectivity, and critique, as well as problematizing assumptions related to how disability is defined, understood, and 'practiced'.

The new landscape of research in special education reveals a series of findings:

- While traditional special education research focused on defining the boundaries of normal, and treatments to address the abnormal, disability studies research examines the historical and contemporary meanings of normal, the interests served by particular constructions of normal, and the possibility that disability or difference itself could be reframed as normal.
- Disability studies examines disability through a social model that acknowledges that bodies differ but that how the body interacts with society and how society/social policy/professional practice interact with the body also vary. Ideas about disability change over time, sometimes radically, not because the body changes, but because societies alter their constructions of difference and notions of the normal. Disability studies questions a static view of disability or difference. Even a person's reputation as competent or incompetent changes according to location and its disability-politics.
- Disability studies researchers ask a new set of questions, for example, 'What are normative practices and why or how might they have developed, to serve what interests?' 'How is clinical practice influenced by socio-cultural understandings and practices?' 'In what ways are children and adults with disabilities regulated differently than others?' 'How does the identity of disability connect to other marginalized identities (e.g., race, sexual preference, economic status)?'
- Researchers working in this new tradition envision their scholarship happening within a democratic tradition. They assume the competence of people with disabilities. They seek out the voices and perspectives of people with disabilities, often working collaboratively. They imagine the possibility that disability can be viewed positively within society, that full citizenship in education can occur.

- Disability studies research always addresses social policy and institutional practices in a way that strictly clinical research rarely does, and envisions itself as playing a role in fostering change toward democratic ends. Early forms of disability studies can be seen in testimony in right-to-education and deinstitutionalization/community integration litigation, for example. However, this work has proven difficult, for public policy still privileges clinical research findings and narrowly defined 'science' over work that derives from multidisciplinary inquiry or from fields seen as non-clinical, e.g., humanities, law, social sciences, epistemology/philosophy, policy analysis, and cultural studies.
- Autobiographical narratives and autoethnography have become highly visible components to disability studies research, providing richly drawn narratives addressing how students experience schooling, including exclusion and inclusion, how individuals with disabilities negotiate normative regulations of their existence, and what society might look like if it understood disability as normal.

Even at this early stage of its development as a field, and in relation to special education, it is already apparent that disability studies is profoundly altering understandings of special education, including interpretations and definitions of specific disabilities (e.g., autism, Down syndrome, deafness, blindness) as well as the seemingly inviolable concept of normal. Special education has much to thank disability studies for intruding itself into its midst.

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22

The Applied Science of Special Education: Quantitative Approaches, the Questions They Address, and How They Inform Practice

Samuel L. Odom and Kathleen Lynne Lane

In the second decade of the 21st century, leaders in the field of special education have placed their faith in science as the venue through which educational improvement will occur. Knowledge in special education has been derived from many places (e.g., neuroscience, theory, practice), but currently, the major emphasis has been to base instruction and intervention on the science of efficacy. That is, there is a belief that instructional and intervention approaches must have some evidence demonstrating positive effects when used with students having disabilities. In fact, in the United States, the current *No Child Left Behind* law (NCLB) repeatedly states that scientifically-based practices will be used in schools with all children.

Although educational researchers, policy makers, and practitioners do not always agree on the definitions of the terms 'science, research, and evidence' (Tseng, 2012), there is general agreement in the field that 'evidence' has to show a 'causal' relationship between an instructional approach or intervention and student outcomes. Education science, as it has evolved over the past decade, has begun to specify the 'rules' for demonstrating such a causal effect, and leaders have further specified the amount of causal evidence necessary for determining a practice is evidence-based (Odom et al., 2004). Although qualitative and descriptive research provide important, and even essential, information about educational practices, there is agreement among many that certain types of quantitative research are the bases upon which one can make causal inferences (Shavelson & Towne, 2002).

In this chapter, we propose that research questions dictate the methodologies ideally employed in education research and describe the types of questions being asked by researchers, policy makers, and practitioners in the field. We examine quantitative research methodologies used in special education, the logic of the methodologies, and the strengths and weaknesses of each. Next, we describe strategies for aggregating or summarizing research to provide evidence of special educational practices. We conclude with a discussion of the role of educational research in promoting effective practices in the field and the promise of implementation science for moving research into practice.

KEY QUESTIONS IN SPECIAL EDUCATION

While the focus of this chapter is on research questions addressing causal inferences between instruction or intervention and student outcomes, it is important to understand the context in which causal questions occur. Moreover, different types of scientific inquiry and methodology are needed to develop and refine the knowledge base within the field of special education. Shavelson and Towne (2002) suggest research can be placed into three, interrelated categories: descriptive, causal, and process. In the following sections we briefly

describe each category of questions, illustrating how they connect.

Descriptive inquiry: What is happening?

Descriptive research serves a number of functions, pursing the question of: What is happening? For example, when a given area has limited knowledge, investigators can begin to develop a line of inquiry by conducting careful descriptions to develop initial impressions. Moreover, descriptive studies can (a) characterize a group of students (e.g., students with antisocial behavior tendencies, limited impulse control, and poor reading skills); (b) understand the context in which a problem occurs as well as the magnitude of problems (e.g., the nature of teacher-student interactions); (c) develop a theory regarding the problem (e.g., the relation between academic underachievement and problem behavior); or (d) examine how change occurs over time (e.g., academic or behavioral performance). Descriptive research may employ qualitative or correlational methodology. For example, such studies may include rich case studies that elucidate a given phenomenon or quantitative studies examining associations among key variables (e.g., rates of praise, instances of aggression, and levels of engagement). Findings from descriptive studies contribute meaningful insights to the base of scientific knowledge and inform causal inquiry (Shavelson & Towne, 2002).

Causal inquiry: Is there an effect?

Causal studies focus on determining the extent to which *x* (e.g., a strategy or practice) influences *y* (e.g., a student outcome such as engagement or academic performance). Causal inquiry is grounded in theory and descriptive studies, providing 'the intellectual foundation for understanding relationships' (Shavelson & Towne, 2002, p. 108). Quite often a correlation between variables (e.g., academic underachievement in reading skills and externalizing behaviors) is identified, which then leads to causal inquiry to understand the directionality of the relation between these variables (e.g., Does academic underachievement in reading lead to externalizing behavior problems, or does externalizing behavior problems lead to academic underachievement in reading?). Randomized controlled trials (RCTs) have long been considered the 'gold standard' among methodologies that address causal questions in education research (Torgerson & Torgerson, 2002). RCTs, however, are sometimes not feasible. For example, research may be conducted with a low-prevalence population and there may not be enough participants to power a randomized design, or it might not be ethical to assign participants to a nontreatment-control condition. Other nonrandomized designs, such as quasi-experimental designs, single case designs, and regression discontinuity designs, have also been developed to address causal questions. All of these designs will be addressed in subsequent sections.

Process or mechanism: Why or how is it happening?

The final set of questions focus on understanding the process or mechanism by which by which *x* causes *y*. These studies model how various components of systems converge and diverge to yield the causal relation established in the previous category of questions (e.g., what variables mediate or moderate intervention outcomes?). While process studies can be conducted following causal investigations, they can also occur before a causal relation has been established. Regardless of sequence, these studies must be grounded in theory with a

goal of developing an explanation for the events of interest. In terms of methodology, these studies may involve correlational, qualitative, or mixed-method designs.

For the remainder of this chapter, we consider the designs associated with the second research question: Is there an effect? Specifically, we will examine the quality features of four designs just identified as being used in special education to answer efficacy questions.

QUANTITATIVE RESEARCH DESIGNS IN SPECIAL EDUCATION

In their report, the Council for Exceptional Education – Division of Research (CEC-DR) Task Force on Quality Indicators for Special Education Research (Odom et al., 2004) identified four methodologies used in special education research: experimental/quasi-experimental, correlational, single case, and qualitative. In these sections, we will review briefly variation on group design methodologies, single case design methodologies, and regression discontinuity designs.

Group comparison designs

RCTs. Once called 'true' experimental designs (Campbell & Stanley, 1963) or randomized experimental group designs, the term used most currently is Randomized Control Design or taking from the medical literature, RCT. Simply stated, researchers randomly assign participants (e.g., students, teachers, families) to conditions, often with one condition being a treatment of interest (e.g., a reading instruction approach) and the other being a 'counterfactual' or an appropriate control condition (e.g., standard educational practice). In this design, researchers compare the performances of the participants in each group, either by assessing change that occurred between a pretest and posttest (i.e., a randomized pre-post experimental design) or just assessing difference on posttest scores (i.e., a randomized posttest only design). The feature of this design that makes it 'true experimental' is the random assignment of participants to groups before the study begins. As noted in the field of educational research, RCTs are sometimes called the 'gold standard' for experimental methodology because they control for most threats to internal validity (Shadish, Cook, & Campbell, 2002).

The logic for random assignment is it will create groups of participants who are equivalent on variables about which the researcher is aware (e.g., the dependent variables in the study and variables found in previous research to be associated with the dependent variable). Also, through randomization, the researcher may also control for variables that may exert an influence on the dependent variables but about which the researcher is not aware. In most cases, researchers will collect pretest data to test the assumption of equivalence when they conduct RCTs, but Shadish et al. (2002) do identify randomized posttest designs as true experimental designs with the rationale that random assignment will create equivalence. As noted, most researchers agree RCTs provide control for the greatest number of threats to internal validity (Ary, Jacobs, Razavieh. & Sorenson, 2006).

Unit of randomization. An issue in educational research is with concordance between the unit of randomization and the unit of analysis. In school settings, students are usually not randomly assigned to classes, so if random assignment is to be used, it would have to occur at the classroom or school building, or potentially even, the district level. In older special education research, a relatively small number of classes were

randomly assigned to conditions but the analysis occurred at the student level – that is scores were aggregated across classrooms in each condition and group means were compared (Fuchs et al., 2002; Odom et al., 1999). The advent and increased use of multilevel designs (Bickel, 2007) has led to the commonly accepted practice of randomly assigning at the classroom or even building level, and controlling for the effects of 'nesting' within classrooms (e.g., students nested within classrooms, classrooms nested in school, and schools nested in districts). The implication is, however, that one now may need to have 60 or more classes available for random assignment rather than 60 students (i.e., with all this depending on a power analysis that estimates sufficient sample sizes to detect a significant effect). Fortunately, funding agencies in the United States (e.g., the Institute of Education Sciences, IES) have recognized this need and are now providing sufficient funding levels to conduct this magnitude of research, which is often quite costly.

Knowing the unknown.   In some ways, RCTs could be said to have a 'faith-based' design feature, if faith is defined as belief without verification. That is, if the logic holds that RCTs are rigorous, in part, because they control for unknown variables that may affect treatment outcomes, then there is no way to verify if the randomization worked to counter those unknown threats (i.e., one has to assume that it is happening). Educational researchers running RCTs sometimes find that even when an RCT sample size is as large as 100 classrooms, there are still pretest differences between treatment and control groups on dependent variables for which the researcher has to statistically adjust (e.g., using pretest scores as covariates). Researchers may assume such pretest differences between groups on the unknown variables may occur at times, but have faith that in most cases, with an adequate sample size, randomization will control for potential confounds presented by unknown variables.

Reactivity of random assignment.   The tradition of random assignment in educational research has emerged from, or at least been influenced by, the clinical trial research in medicine. However, in special education research, when teachers or practitioners are randomly assigned to learn and implement an intervention or instructional strategy, they bring to the study a set of beliefs and educational philosophies. These beliefs and philosophies may be consistent with or counter to the treatment to which they were assigned and required to implement. In such cases, random assignment may have a reactive effect in the sense teachers with conflicting philosophies may implement the intervention poorly (i.e., at low-level or low-quality of treatment integrity) or experience increased degrees of burnout. In a randomized efficacy study of a preschool readiness curriculum, Lieber et al. (2000) found one theme characterizing low-implementers of the curriculum was disagreeing with the philosophy of the curriculum. Other researchers have found significant association between teacher burnout and incongruence in teacher philosophy and treatment approach (Jennet, Harris, & Mesibov, 2003). It should be noted that when researchers and research staff are the implementers of the treatment conditions rather than teachers in schools (as occurs in some efficacy studies) the issue of reactivity is reduced because one assumes researchers will have more control over the individuals selected to deliver the intervention.

Quasi-experimental designs.   Sometimes random assignment is not feasible because of the setting, characteristics of students, or ethical considerations, to name but a few examples. In such circumstances, educational researchers may conduct a quasi-experimental design study, which would not involve

randomization. Shadish et al. (2002) noted that 'Quasi-experiments share with all other experiments a similar purpose – to test descriptive causal hypotheses about manipulable causes – as well as many structural details. By definition quasi-experimental designs lack randomization and assignment to condition is by self-selection or administrator selection' (p. 14). For these designs, the researcher has greater responsibility for demonstrating that threats to internal validity are adequately controlled, as compared to researchers employing RCTs.

One primary threat to internal validity is selection; namely, the researcher has to demonstrate treatment and control groups are equivalent on key variables. Close scrutiny may be paid to participant characteristics and participant performance on dependent variables of interest before treatment is administered. Unlike RCTs, which can have a posttest only option, quasi-experimental designs need to have a pretest to demonstrate equivalence on dependent variables (Gersten et al., 2005). In cases where there are pretest differences, researchers may control those through analyses of covariance or other regression analyses. It should be noted these same techniques can be followed for RCTs when there are pretest differences.

The advantage of quasi-experimental designs is that in educational settings, it may be more feasible to work with existing groups than to attempt to randomly assign students or classrooms to groups (Martella, Nelson, & Marchand-Martella, 1999). For example, Lancaster, Schumaker, Lancaster, and Deshler (2009) used a quasi-experimental design involving students in intact classes to determine the effects of a computerized program for promoting test-taking strategies for secondary students with disabilities. Also, if researchers expect random assignment to be reactive, selecting teachers or classes already implementing an intervention approach and carefully selecting individuals not implementing the approach or implementing a different treatment (in a treatment comparison study) may be a feasible alternative. Essential features of this latter strategy are (a) rigorous assessment of treatment fidelity in both the treatment and control classes, and (b) a generic measure of the type of instruction/intervention occurring in the control classes. In their quasi-experimental design efficacy study of two comprehensive treatment models for preschool children with autism and a business as usual condition, Boyd et al. (2012) selected teachers/classes that had been implementing the TEACCH and LEAP models for a 2-year period, and a set of teachers implementing high-quality special education services for preschoolers with autism. In their study, they designed reliable fidelity measures for each condition, documenting high fidelity of implementation in each treatment condition.

Instrumental variables.   The disadvantage of quasi-experimental designs is that one cannot rule out other unknown confounding variables potentially impacting outcomes for participants, which of course is the value of randomization. That is, the vigilant researchers will identify from the literature all variables associated with the outcome variable and build them in as covariates in the statistical analysis, but there may be associations not yet appearing in the literature. Using a technique rooted in econometrics, some researchers have employed 'instrumental variables' to infer causal relationships when random assignment is not possible and a quasi-experimental approach is utilized (Angrist, Imbens, & Rubin, 1996). In such analyses, a third variable, associated with an acknowledged covariate and logically identified as a distal measure of treatment outcome, is used as an inference of a causal relationship. For example, smoking is correlated with lung cancer, but one cannot randomly assign individuals to a smoking or nonsmoking condition. However, taxes on cigarettes are variable, and one might infer that if a negative correlation is found between cigarette taxes and incidence of

lung cancer, then a causal linkage may be suggested (Angrist et al., 1996). To examine the relationship between student attendance and academic achievement in urban elementary and high schools, Gottfried (2010) used an instrumental variable (i.e., distance from the school) analysis for students in the Philadelphia public schools.

Longitudinal designs.   Group comparison designs, be they RCTs or quasi-experimental designs, can vary in length. Moreover, treatment-outcome studies can vary in terms of the length of time over which an intervention occurs. For example, some intervention outcomes may span over the course of one academic quarter (Kalberg, Lane, & Lambert, 2012); whereas others may occur over the course of an academic year; (e.g., Lane, Kalberg, Mofield, Wehby, & Parks, 2009). In addition, studies can also vary in the length of time during which maintenance and/or generalization data are collected. For example, studies may involve pre-post designs; whereas others may involve short-term (e.g., 1 month) and long-term (e.g., 3 months, 1 year) maintenance.

When conducting longitudinal designs, it is important to consider the same issues discussed previous for RCTs and quasi-experimental designs. However, it is also important to consider issues such as the consequences of having a true control group not receiving an intervention for an extended period of time. For example, one criticism of treatment-outcome studies is the absence of long-term maintenance of intervention effects. However, it is difficult to enlist support from district-level adminisrators to identify students with specific needs (e.g., students with behavior problems who are also sub-average readers) and then make the case for conducting an RCT to explore the impact of supplemental reading intervention with long-term maintenance measures that requires students in the control condition to *not* receive the intervention or other supplementary supports for an extended time.

Another salient issue is attrition. Attrition is the loss of participants, which can involve losing teachers as interventionists (e.g., when teachers move, go on maternity leave, change jobs, etc.) or students as participants (e.g., when students move or district re-zoning impacts students attending schools). For example, when conducting longitudinal treatment-outcome studies, researchers must consider how to protect against and then methodologically deal with attrition (e.g., managing missing data and shrinking sample sizes). Finally, as key leaders shift positions (e.g., changes in superintendents), there can be large scale changes such as the adoption of new standards (e.g., common core standards), core programmatic and philosophical changes (e.g., movement to full inclusion), and changes in data management systems (e.g., changing how discipline referral data are monitored), that all impact ongoing longitudinal inquiry. While there are multiple challenges associated with longitudinal research, these are but a few issues for consideration.

SINGLE CASE DESIGNS (SCDs)

Originating in the field of applied behavior analysis (Sidman, 1960), SCDs have become a mainstay of research in special education (Gast, 2010; Kazdin, 2011). SCD is a bit of a misnomer in that a 'case' may be an individual, a class of students, a school, or even a community. Like group designs, the unit of analyses may vary in size and complexity, although most often the case is an individual participant. The logic of the methodology is built on four basic features. First, the individual case (participant) serves as the control for him/her/itself – that is, SCDs are all 'within subjects' designs. Second, the designs depend on systematic

implementation of the independent variable resulting in reliable changes in the dependent variables. This functional relation between the two must be demonstrated on three occasions in a design framework at three different points in time (Horner et al., 2005). Third, measurement of the dependent variable occurs repeated across time, rather than at the beginning and end of the study as occurs with group designs. This allows treatment effects to be detected by changes in trends in the data across time, changes in levels (i.e., immediate increase or decrease in performance when an intervention is implemented), and changes in stability (variability) across time, or all three. Fourth, systematic visual inspection is the primary analyses of treatment effects (Kazdin, 2011), although there has been much work over the years and especially recently, to design statistical analyses. Randomization is not generally viewed as an essential feature of single case designs, but some researchers propose it may strengthen the methodology (Kratochwill & Levin, 2010).

Different types of single case designs have been developed, but all have the same purpose of controlling for threats to internal validity. The three primary types of designs are multiple baseline (MBD), withdrawal of treatment, and alternating treatment. In MBDs, at least three individuals, settings, or behaviors are the focus of a study (See Figure 22.1). After a baseline that provides an assessment of functioning before the intervention is implemented, an intervention is implemented in one 'tier' (e.g., with one person) while the other two tiers remain in baseline conditions. When an effect in one tier occurs, implementation occurs in the second, and eventually in the third tier. Researchers have found MBDs tend to be used most often in special education (Odom & Strain, 2002). For example, Vasquez and Slocum (2012) used a MBD across participants to efficacy of supplemental reading instruction on oral reading rates for four 9th-grade students.

In a withdrawal of treatment design (see Figure 22.1), the researcher again assesses participant performance in a baseline phase of the study, which is followed by the treatment being implemented, which is in turn followed by the treatment being withdrawn, and then finally followed by the treatment being implemented again. In each case, there should be changes in the predicted direction in the dependent variable when the treatment is implemented or withdrawn (i.e., either increases for behaviors to be learned or decreases in challenging behavior). For example, Bryan and Gast (2000) used a withdrawal of treatment design to investigate the impact of a graduated guidance and visual activity schedule intervention on on-task and on-schedule performance of children with autism.

In the two previous designs, the purpose generally is to answer the basic efficacy question of whether a treatment is effective compared to a baseline (counterfactual) condition. In the third design, called an alternating treatment design (ATD), two treatments are implemented in an alternating fashion (i.e., usually on a randomly-alternating basis), and the participant's performance in each of the treatment conditions is compared. The ATD is most appropriate for interventions that have an immediate effect on behavior but are not likely to affect the behavior when the contrasting experimental condition is implemented (i.e., that there is not a cumulative learning effect that would affect performance across treatment). For example, LaGrow and Murray (1992) used an ADT to evaluate the effects of different print sizes and graphic contrasts on the speed of map reading for children with low vision.

Advantages.   There are many strengths to SCD, which perhaps is why it is used so frequently in special education. A study can be conducted with a small number of participants, which is necessary when research focuses on low-prevalence conditions as often occurs in special education research. SCD allows examination

of the pattern of treatment results across individual participants across time, which may allow more understanding of the process of intervention than is usually possible with group designs (i.e., which yield only performance information at the beginning and end of the study). Also, SCDs are flexible so that if an intervention may not have worked well initially, a feature may be added to strengthen the intervention, and the impact of that treatment may be systematically analyzes.

Disadvantages.   From a traditional research perspective, the problem with SCDs is that they, by definition, include a small number of participants, so the potential for generalizing results of a single study to the larger population is limited. Researchers may speculate about the implications of their SCD study of a special education practice, but external validity for study findings is built through replication of treatment effects in other studies. Although SCD researchers focus on the use of visual inspection as the analytic method of choice, some also propose more active use of statistical analyses (Parker, Vannest, Davis, & Sauber, 2011). Experts from the field have not agreed on the statistical method that is most useful (Kratochwill et al., 2013). SCDs are designed to demonstrate the efficacy of an intervention, but they cannot tell us if an intervention is not efficacious. That is, the design logic is built around demonstration of experimental control, and when that is absent, the study is not acceptable as experimental research. Group designs also face this challenge, but they can be set up in a way allowing a detection of and conclusions about no difference between or among groups in a study (e.g., null hypothesis stated in advance, elevated alpha level for statistical analysis).

Withdrawal of treatment design
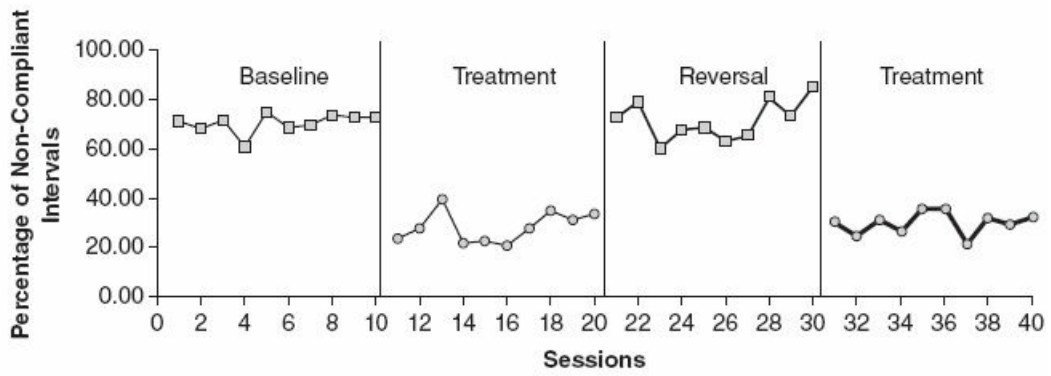
Multiple baseline design

354
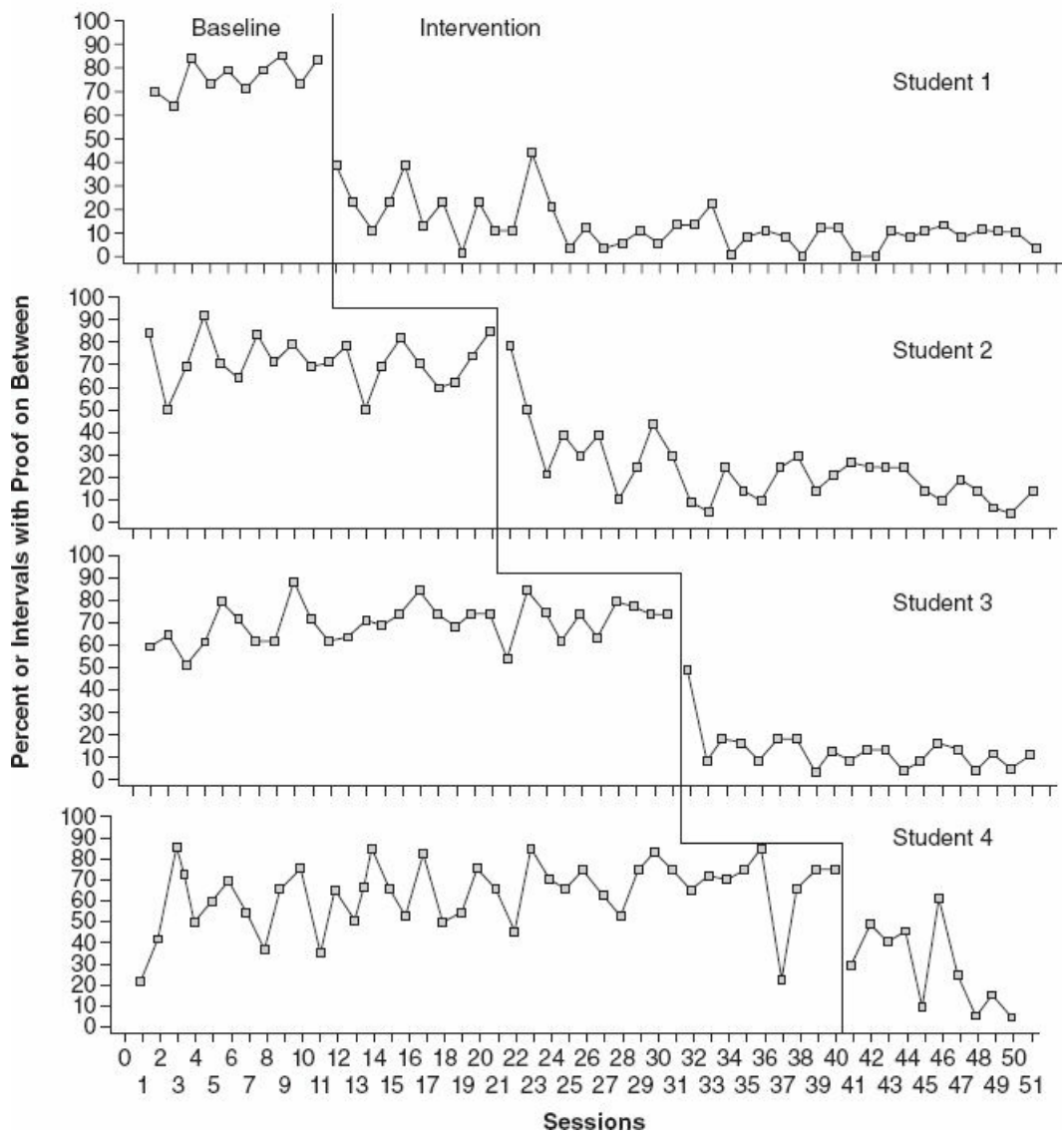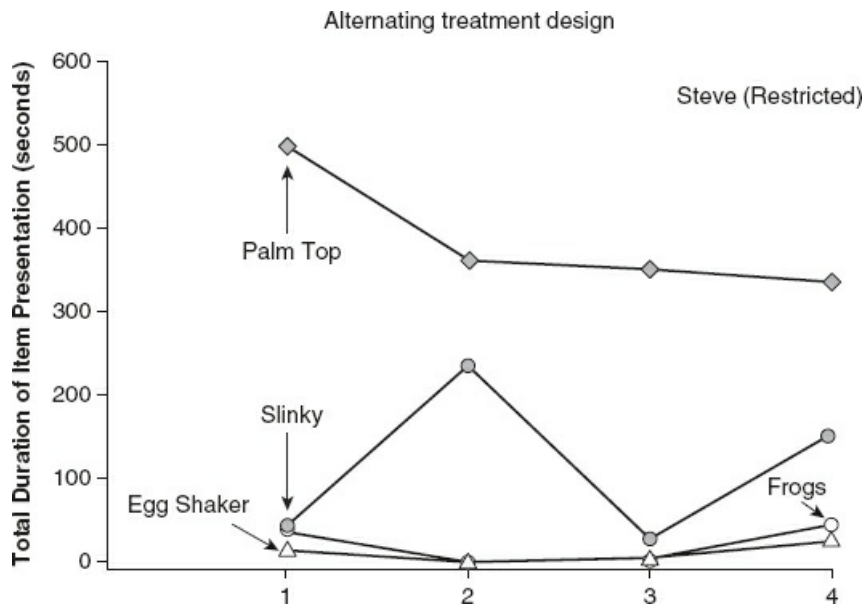
Figure 22.1   Examples of single case designs

Source: Swoboda, Kratochwill, Horner, Levin, & Albin (2012). Reproduced with permission from Robert H. Horner.

REGRESSION-DISCONTINUITY DESIGN (RDD)

RDDs will be mentioned briefly in this chapter because they are just now beginning to be used in special education research (Peters, Housand, & Matthews, 2012), spurred on in part by IES's determination that RDDs are acceptable for addressing causal questions. RDD is considered a quasi-experimental design because it does not involve random assignment; yet, is designed to generate causal conclusions (Shadish et al., 2002). In an RDD design, participants are assigned to a treatment group based upon a 'cutoff' or criterion score on a continuous variable, such as an achievement, adaptive behavior, or intellectual functioning. The treatment is applied for individuals in the group who are above or below the cutoff score, depending on the research question. The logic of the model is that the performances of individuals in the control or counterfactual group will generate a pattern of performance allowing a regression line to be calculated and predicting performance for individuals in the treatment group if they had not received the treatment (Imbens & Lemieux, 2008). A similar regression line is calculated for individuals in the treatment group, and an experimental effect is detected when the two regression lines are substantially and significantly different.
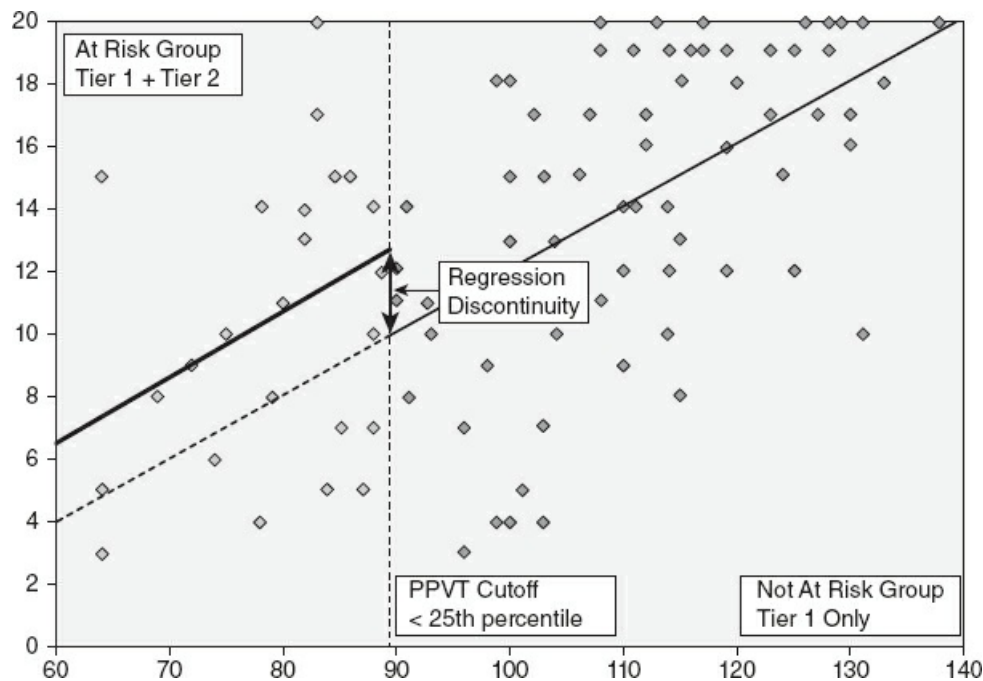
Figure 22.2   Regression lines of comparison and treatment groups

An example may be productive here. In a study of a Response to Intervention (RTI) approach to promoting literacy, Tuckwiller, Pullen, and Coyne (2010) assigned students who scored below the cutoff score of 90 on the PPVT (i.e., identified as the At Risk group) to a Tier 1 plus Tier 2 condition. Students scoring above the cutoff were identified as the Not At Risk Group and received only the Tier 1 intervention (i.e., the counterfactual condition). The predicted performance for the At Risk group, based on the Not At Risk Group Score, was substantially different from their performance after having received the Tier 1+2 treatment (See Figure 22.2).

Advantages.   The clear advantage of RDDs is that they do not require random assignment, which as noted may be difficult in many situations in special education. With RDDs, one can construct a counterfactual from a group that would not typical receive the treatment that is being examined. The RDD analysis can generate an effect size that is comparable to effect size metrics used to evaluate RCTs (Shadish et al., 2002). Also, the RDD has been used across disciplines, such as psychology, education, and economics, which lends credibility to the approach (Imbens & Lemieux, 2008).

Disadvantages.   There are, however, some cautions or disadvantages. RDDs require a larger sample size (i.e., as much as a factor of 3 or 4) than do RCTs in order to be sufficiently powered to detect significant differences (Schochet, 2009). Second, although not usually acknowledged, if there are characteristics associated with the 'cutoff variable' potentially affecting the dependent variable in the study, it may invalidate the counterfactual prediction from the control group. For example, for students with Autism Spectrum Disorders (ASD), one could create groups with and without intellectual disability based on an IQ score or IQ + Adaptive Behavior score. However, there are characteristics associated with intellectual disability and ASD that make it a very different group from individuals having ASD but without intellectual disability (i.e., incidence of stereotypic behavior, frequency of nonverbal language impairment, etc.). So, creating a

counterfactual based on projected regressions of either group might be inaccurate. Nevertheless, RDDs in specific circumstances may be a valuable methodology when random assignment is not possible.

MIXED-METHOD DESIGNS (MMDS)

Researchers may choose to use both quantitative and qualitative methodology in the same study in mixed method designs (MMDs; Onwuegbuzie & Combs, 2011). The potential utility of MMDs is considerable and can be manifest in different ways (Johnson & Onwuegbuzie, 2004). In their typology of rationales for using MMDs in special education, Collins, Onwuegbuzie and Sutton (2006) proposed that MMDs would enhance participant enrichment, instrument fidelity, treatment integrity, and significance. For example, an investigator may examine efficacy in a quantitative study and use qualitative methodology to understand the process that may be operating to explain treatment effects or other outcomes that may have occurred but were not detected by quantitative methodology. Alternatively, a researcher may conduct a qualitative study, develop and examine grounded hypotheses, detect reliable themes in the data, and then examine the hypotheses through a quantitative methodology.

MMDs work well when one methodology informs the other and there is an interplay between the two methods in an iterative and progressive way (Caracelli & Greene, 1997). For example, in their study of inclusion for preschool children with disabilities, Odom, Zercher, Li, Marquart, and Sandall (2006) collected a variety of quantitative measures (i.e., observational, peer ratings, teacher ratings) and qualitative data (e.g., case summaries, field notes, interviews). They used the data in a complementary and iterative fashion to determine the characteristics of children with disabilities who were socially accepted and rejected by their peers. In their study of the Collaborative Strategic Reading approach with middle school students with reading disabilities, Klingner and Broadman (2011) collected quantitative data on student outcomes and qualitative data on instructional practices to learn about the instructional process, the influence of students' cultural background on the process, features that appeared to affect learning, and modifications that could strengthen the impact of the intervention.

Advantages.   The advantage of MMD in special education is that it can allow a deeper understanding of the instruction or intervention process than could be obtained with either type of methodology used in isolation. Although MMD can address efficacy questions, it has an even greater potential for addressing the process questions implied by Shavelson and Towne's (2002) third question (i.e., why is it happening).

Disadvantages.   A potential disadvantage with MMD is that the research has to establish rigorous methodology from two different research paradigms, and meet the quality indicator requirements of each. The sophistication of the MMD approaches in special education is advancing (e.g., Collins et al., 2006), but formal training in MMD in the field of special education is rare.

USING QUANTITATIVE RESEARCH TO IDENTIFY EVIDENCE-BASED PRACTICE

In the United States, special education research addresses all of the questions Shavelson and Towne (2002) stated as pertinent in the larger field of educational research; however, as noted previously, there has been a

predominant focus on the second question: Is there an effect? Pushed by the *NCLB* law in the United States, which specifies an emphasis on research-based practices, much attention is now directed toward the identification of instructional or intervention practices that have empirical evidence of their efficacy (Odom et al., 2005). The search for evidence-based practice has precedence in the field of medicine and health care. In the 1960s, Archie Cochrane, a physician in the United Kingdom, initiated the evidence-based medicine movement by assembling research reviews of evidence about medical practice and care that was efficacious, with the intent such information would influence physicians' practices with patients. This system of review developed into the Cochrane Collaboration (www.cochrane.org), which now consists of reviews on a variety of practices. The evidence-based medicine movement continued to evolve through the work of Sackett and colleagues in Canada (Sackett, Rosenberry, Gray, Haynes, & Richardson, 1996), and in the last decade scholars in the field of education have begun discuss the need for evidence-based education (Davies, 1999). Organizations similar to the Cochrane Collaboration, such as the Campbell Collaboration (www.campbellcollaboration.org), the What Works Clearinghouse (ies.ed.gov./ncee/wwc), and the Institute for Education Evidence for Policy and Practice Information and Coordinating Centre (www.eppi.ioe.ac.uk), have been established to review and summarize research that supports the efficacy, or lack thereof, for educational practice.

A critical feature in the process of identifying evidence-based practice is the criteria scholars employ in the review process – that is, how and what kind of evidence is enough to call a practice evidence-based. There is nearly uniform agreement that research has to be quantitative and designed to generate causal inferences. The RCT designs, quasi-experimental designs, SCDs, and RDD all generate causal inferences if they are methodological acceptable (Shadish et al., 2002), although it is important to note some review groups only consider RCTs as a legitimate methodology for establishing efficacy (Vanderbilt Evidence-Based Practice Center, medicineandpublichealth.vanderbilt.edu/center.php?userid=1043409&home=1). A second, generally accepted criterion is that research evidence is published in peer-review journals.

The amount of evidence necessary for qualifying a practice as evidence-based varies across review groups. Division 12 of the American Psychological Association was one of the first organizations to specify the number of studies needed to be considered efficacious (i.e., evidence-based) and also to include SCD studies as legitimate sources of evidence (Chambless et al., 1996; Lonigan, Elbert, & Johnson, 1998). Influenced by this work, CEC-DR, in the United States, established a task force to identify quality indicators of rigorous research methodologies in special education research and the number of methodologically acceptable studies necessary for a practice to qualify as evidence-based (Odom et al., 2004). To qualify as evidence-based, a practice had to be shown as efficacious in least two high-quality group design studies (Gersten et al., 2005) or five high-quality SCD studies conducted by researchers at three different sites and involving a total of 20 or more participants (Horner et al., 2005). In subsequent research, these criteria have been used to identify evidence-based practices appropriate for children and youth with specific types of disabilities such as ASDs (Odom, Collet-Klingenberg, Rogers, & Hatton, 2010).

Two qualifications need to be made here. First, in the past meta-analysis has been a primary mode for aggregating research and determining effect sizes (Glass, McGaw, & Smith, 1981). The late Kenneth Kavale (2007) wrote an excellent chapter on meta-analysis in special education research for the first edition of this book. The methods he described are still current and important. Currently, the focus on establishing

evidence-based practice has emphasized more the identification of practices rather than comparison among practices. In addition, as noted previously, a considerable proportion of special education research is SCD and there is not an agreed upon standard for calculating effect sizes for SCD studies or integrating those effect sizes if calculated with effect sizes from group design (Lane & Carter, in press).

A second and somewhat different point is that scholars in the field also talk about 'practice-based evidence' (i.e., knowledge generated from application of EBPs in real world settings) and the necessity of incorporating practitioner and family knowledge in the application of EBPs, especially when there is limited evidence in some areas (Buysse & Wesley, 2005). Indeed, Whitehurst (2002), the first Director of IES, defined evidence-based education as 'integration of professional wisdom with the best available empirical evidence in making decisions about how to deliver instruction'.

WHEN EVIDENCE IS NOT ENOUGH: THE IMPORTANCE OF IMPLEMENTATION SCIENCE

The gap between research and practice has always been a concern in special education (Carnine, 1997), and indeed is indicative of the entire field of education. In her review of research projects funded by the W. T. Grant foundation to determine the use of research in educational practices, Tseng (2012) noted that researchers and policy makers/practitioners (i.e., potential consumers of research) have different definitions for 'research' and that there is little convergence between the research and practitioner communities. Commenting on this article, Cadigan (2012) confirmed researchers and practitioners operate in different professional cultures, with communication across the two groups being a challenge. An operating assumption by some researchers is the following: if efficacious practices are determined through quantitative research, the field will naturally choose to employ them. However, it is apparent, that just providing the evidence is not enough.

The emerging field of implementation science (Fixsen, Naoom, Blase, Friedman, & Wallace, 2005) holds promise for moving the results of quantitative efficacy studies and identification of EBPs directly in to practice (Odom, 2009). Following a systems model for promoting utilization of EBPs, Fixsen, Blase, Metz, and Van Dyke (2013) have proposed a model that views implementation of EBP in special education occurring in stages (i.e., exploration, installation, initial implementation, final implementation). The model follows a process for systems wide use of EBP that includes external support from purveyors, a state management team supporting policy for professional development, a system of technical assistance or coaching complementing direct training on EPBs, and a feedback loop between implementation at the local level and policy at the state and district level. To support the use of EBPs in programs for students with ASD, Odom, Cox, Brock and NPDC Research Group (2013) have incorporated the principles of EBP and features of the Fixsen et al. (2013) model and found changes in program quality, teacher use of EBPs, and students' goal attainment.

CONCLUSION

Quantitative research is the bedrock of special education. This field has always had a research-based, data-driven orientation. The articulation of key research questions in the field and current focus on causal inferences related to efficacy has set the stage for selection of applicable and appropriate quantitative methods.

Although not in complete agreement, many scholars in the field are beginning to accept a range of quantitative methodologies (i.e., RCTs, quasi-experimental design, SCDs, RDDs) that may generate causal interpretations of efficacy, especially when evidence is replicated across studies. However, there is growing knowledge that a generation of research evidence alone is not sufficient for improving practice and associated outcomes for children and youth with disabilities. Without a systematic and concerted effort to provide initial training, ongoing support for implementation, and social policy support at the state and district level, the evidence generated from quantitative research in special education will lie fallow in the journals in which it is published.

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23

Researching Inclusive Classroom Practices: The Framework for Participation

Kristine Black-Hawkins

This chapter examines the important but complex task of undertaking research into inclusive classroom practices. It does so by looking in detail at the Framework of Participation, which offers one particular approach to this work. The Framework is a research tool intended to support teachers (and other researchers), who seek to understand how and why their classroom practices do, and do not, support the inclusion and achievement of all learners. First, the over-arching structure of the Framework is presented, and then the principles underpinning this are discussed. The chapter ends with a description of using the Framework in practice. Throughout the methodological implications and challenges of researching in this area are explored.

CHALLENGING RESEARCH INTO INCLUSIVE CLASSROOM PRACTICES

During the last decades of the 20th century, as well as more recently, governments of many countries have introduced legislation expected to promote more inclusive education systems. Yet, despite these changes to national policies, the necessary corresponding developments in classroom practices do not seem to have been so easily achieved. Numerous studies indicate that whilst the majority of teachers are highly committed to the principles of inclusive education, they are anxious about working with classes that comprise an increasingly diverse range of learners (e.g. Avramidis, Bayliss, & Burden, 2000; Blecker & Boakes, 2010; Jordan, Schwartz, & McGhie-Richmond, 2009; Lopes, Monteiro, & Sil, 2004; Lyser, Kapperman, & Keller 1994; Ross-Hill, 2009).

In particular, teachers believe they do not have the necessary specialist knowledge, skills and expertise to meet the needs of students identified as having special needs and disabilities. These studies indicate that teachers' concerns about inclusive classroom practices are enduring in nature, consistent across different national settings, and shared by more and less experienced colleagues. Such findings have serious consequences for both teachers and learners. It seems clear that a commitment to inclusive education, as expressed in national policies, is of limited value unless it can be 'translated into working practices that enable successful learning outcomes to be achieved' (Rose, Shevlin, Winter, & O'Raw, 2010, p. 370).

This deep-rooted professional unease clearly raises difficult questions about how governments should support the changing professional needs of teachers. However, it also presents substantial challenges to those of us who undertake research into inclusive classroom practices. What should be the focus of our work? (Artiles, Kozleski, Dorn, & Christensen, 2006; Thomas, 2013) How can our findings contribute to a greater understanding of classroom practices that recognize and respond to the individual differences of all learners but do not marginalize or stigmatize some because of their particular needs? Furthermore, how can the research approaches developed in these studies be made meaningful for teachers who wish to undertake

research into their own practices, and in ways that take proper account of the demands of the daily routines of classroom life? What, then, are the methodological challenges involved, and what might we learn from our previous efforts?

BACKGROUND TO THE FRAMEWORK FOR PARTICIPATION

The Framework has developed over a period of about 10 years (see Black-Hawkins, 2010, for a discussion of its origins and evolution.) Much of this work has been in collaboration with school and university colleagues as we have endeavoured to address the conceptual and methodological challenges outlined above. It was originally devised to support a study into the relationship between educational inclusion and achievement in schools as institutions (see Black-Hawkins, Florian, & Rouse, 2007). More recently, it was adapted for use in classroom-based studies of inclusive pedagogy (see Florian & Black-Hawkins, 2012). Indeed, the findings from both these studies (discussed later in the chapter) have contributed significantly to the Framework presented here. Thus, even though its underlying principles and methodological purposes have not changed over time, its detail has evolved in response to new insights and information about inclusive practices. This has allowed an important iterative process to take place because, in using a revised Framework to support further research, any such conceptual developments are then afforded additional scrutiny.

Table 23.1　Key sections of the framework

1. Participation and *access*: being there
2. Participation and *collaboration*: learning and working together
3. Participation and *achievement*: supporting everyone's learning
4. Participation and *diversity*: recognizing and accepting difference

Table 23.2　Who? What? and Why? of classroom participation

- **WHO** does and does not participate? And, who decides?
- **WHAT** are the classroom practices that promote participation? What are the classroom practices that reinforce barriers to participation?
- **WHY** do these practices that promote participation take place (values and beliefs in the classroom community)? Why do these practices that are barriers to participation take place (values and beliefs in the classroom community)?

PURPOSES AND STRUCTURE OF THE FRAMEWORK FOR PARTICIPATION

The Framework is a research tool, or methodological lens, that provides a flexible approach to the collection, analysis and presentation of evidence about inclusive classroom practices. Its particular purpose is to provide teachers with a manageable structure for collecting evidence about their existing classroom practices to inform their future actions and decision-making. It acts as a scaffold to support the direction of research by prompting systematic and theoretically rigorous reflection. It can also be used by university researchers who wish to develop a more nuanced understanding of classroom inclusive practices, by working closely with practitioners. The Framework explores not only what teachers do, but also, more importantly, how and why.

Its main structure comprises four key sections, each relating to an aspect of classroom participation: (i)

access, (ii) *collaboration*, (iii) *achievement* and (iv) *diversity* (see Table 23.1). These are then supplemented by a series of questions that are intended to support decisions about data collection, formulated around *who, what* and *why* (see Table 23.2). In many ways it is the *why* questions that are most pertinent because, in addressing these, the evidence underlying *who* and *what* is also likely to be revealed. Nevertheless, to make sense of *why* requires a careful exploration of the values and beliefs which shape, and are shaped by, the policies, practices and everyday interactions that comprise much of classroom life. Whilst such scrutiny is a complex task, without doing so, the findings of the research may be of limited worth. This requires researchers (including teachers) to be reflexive about their own values and beliefs and not only those of the children and adults in classes.

The next stage of the Framework's structure is shown in Table 23.3. Here, the four main sections have been sub-divided into a number of related elements and accompanied by a series of questions based on the ones shown in Table 23.2. The purpose of this Table is to help researchers to identify aspects of classroom practice on which they wish to focus their attention. It is through these key sections, elements and questions that the following kinds of methodological decisions can begin to be made:

- asking questions (who and what to ask);
- observing classroom activities (who to see, where and what to record);
- scrutinizing documentary/archival sources, including statistical data (what to collect, from where and whom).

The order of the four sections is not hierarchical: indeed, there is likely to be considerable overlap between them in terms of the processes of, and barriers to, participation that comprise the day-to-day experiences of children and adults. Therefore, decisions about how and where to gather evidence is not always straightforward, but this reflects the complex nature of classrooms. In particular, the fourth section on 'Participation and *diversity*' permeates all aspects of classroom practices. For example, decisions about *access* are partly based on understandings of and attitudes towards learner diversity. Similarly, *collaboration* is partly dependent upon a belief that the range of experiences and expertise amongst members of a class is a resource for learning rather than simply a problem to be overcome. And, the section of *achievement* is predicated on a view that everyone can learn and that many different forms of progress should be valued. Finally, of the four key sections *diversity* is also especially difficult to address with regards to identifying processes of and barriers to participation, because the values and beliefs which help to shape relationships between members of a classroom are often covert and unquestioned by adults and children alike.

EXPLORING THE RELEVANCE OF PARTICIPATION TO THE FRAMEWORK

The concept of participation has informed a wide range of research and practices relating to the experiences of children and young people, and across many different contexts, locally, nationally and internationally. Whilst this diversity makes the ideas underpinning participation susceptible to ambiguous and uncertain interpretations (Thomas & Percy-Smith, 2010, p. 3), there are some key themes, embedded in much of this work, that relate strongly to the Framework and particularly, in relationship to the understandings of inclusive classroom practices therein. The purpose of this section of the chapter is to consider these further. It describes how and why the concept of participation was used in the development of the Framework, when it was used

to collect evidence for a study into the relationship between inclusion and achievement in schools. The section then briefly considers other research, which has also drawn on this concept in ways which resonate with the key principles of the Framework. Three overarching themes emerging from much of this work are highlighted: first, participation as decision-making and having choices; second, a concern with the participation of marginalized individuals and groups; third, research that draws on participation as a way of examining the social and collective aspects of classroom teaching and learning.

Table 23.3   Sections, elements and questions of the framework for participation 1 Participation and access: Being there

1. Joining the class
   - Staying in the class
   - Accessing spaces and places in the class
   - Accessing the curriculum
     - Who is given access and who is denied access? By whom?
     - What classroom practices promote access? What classroom practices reinforce barriers to access?
     - Why within the values and beliefs of the classroom community is greater access afforded to some individuals/groups? And, why is access withheld from some?
2. **Participation and collaboration: Learning and working together**
   - Children learning together in the class
   - Members of staff learning together in the class
   - Members of staff learning with others from beyond the class
     - Who learns together and who does not learn together?
     - What classroom practices promote collaboration? What classroom practices reinforce barriers to collaboration?
     - Why within the values and beliefs of the classroom community do some individuals/groups learn together? And, why are there barriers to some learning together?
3. **Participation and achievement: Supporting everyone's learning**
   - Regarding progress in learning as an everyday expectation
   - Valuing and rewarding a range of achievements
   - Focusing on what learners can do rather than what they can not
   - Using formative assessment to support learning
     - Who achieves? Who does not achieve?
     - What classroom practices promote achievement for all? What classroom practices reinforce barriers to achievement?
     - Why within the values and beliefs of the classroom community do some individuals/groups achieve? And, why are there barriers to the achievement of some?
4. **Participation and diversity: Recognizing and accepting difference**
   - Recognizing and accepting children, by staff
   - Recognizing and accepting staff, by staff
   - Recognizing and accepting children, by children
     - Who is recognized and accepted as a person and by whom? Who is not recognized and accepted as a person and by whom?
     - What practices promote recognition and acceptance? What practices form barriers to recognition and acceptance?
     - Why within the values and beliefs of the classroom community are some individuals/groups recognized and accepted? And, why are there barriers to the recognition and acceptance of some?

Achievement and inclusion

The Framework was developed to support the collection, analysis and presentation of evidence for a study

which sought to examine the relationship between educational achievement and inclusion in schools (Black-Hawkins et al., 2007). We were interested in understanding more fully the enduring and widespread perception amongst some policy-makers and practitioners that the inclusion of certain children in mainstream schools and classrooms has a detrimental effect on the academic achievement of all other children (e.g. Audit Commission, 2002; House of Commons Select Committee Report, 2006). However, our findings indicated that high levels of inclusion (in terms of a school's diverse learner intake) can be compatible with high levels of learners' achievement. That is, in such schools staff viewed inclusion as having a commitment to finding ways to recognize, support and reward the achievements of all learners. Thus, we developed the idea of participation as a way of bringing together, understanding and re-defining the relationship between the concepts of inclusion and achievement. In terms of understanding classroom participation, it would, therefore, be a misnomer to describe any child, or group of children, as being 'included' in a class, unless doing so involved genuine opportunities for them, individually and collectively, to achieve and to learn as members of their classroom community. This understanding of participation underpins all four sections of the Framework.

Supporting decision-making

Turning to other studies that draw on participation to help to explore the experiences of children and young people, a key theme running through much of the work concerns the development of authentic opportunities for them to engage (or participate) in making decisions about their own lives. In particular, such research focuses on finding ways of doing so that are meaningful to the children and young people, rather than being tokenistic and/or adult-centric (Taylor & Robinson, 2009).

Applying these ideas to developing inclusive classroom practices relates closely to research on student voice that involves supporting learners to make choices about how and what they learn, as well as finding ways to make genuine contributions to communal decisions about the learning that is undertaken as a class (e.g. Hart, Dixon, Drummond, & McIntyre, 2004; Pedder & McIntyre, 2004; Rogoff, Turkanis, & Barlett, 2001; Rudduck, 2002).

Focusing on marginalized individuals and groups

A second key theme that informs much of the work that draws on the concept of participation is a sharp focus on individuals and groups of children and young people who are most at risk of being marginalized or stigmatized socially and/or economically. Underlying reasons for this include, for example: poverty, class, disability, gender, ethnicity, sexuality and mental health. Research in these areas has important parallels with studies that seek to understand and develop inclusive classroom practices. Thus, whilst the Framework is concerned with the learning of everyone in a class, it is especially vigilant about recognizing and responding to those who are most vulnerable to processes of exclusion for whatever reasons, whether they have an identified special need or disability or because of, say, their age, gender, ethnicity, sexuality and/or class. The Framework therefore encourages researchers to consider a more nuanced understanding of the 'complex experiences and interactions which are the reality of children's lives' and the ways in which 'inequalities are interlinked' (Alexander, 2010). For example, Gillborn and Youdell (2000) have explored the interplay between poverty,

class, ethnicity, and gender in the educational experiences of learners (see also Artiles et al., 2006; Lave, 1996; Youdell, 2006).

Teaching and learning as social and collective phenomena

This concern with supporting the participation of those who are more vulnerable to processes of exclusion is not intended to support a reductionist view of learners, or the nature of inclusive classroom practices. As a counter to this it is helpful to draw on Sfard's conceptualization of participation as a 'metaphor' for classroom learning because it 'promotes an interest in people in action rather than in people "as such"' (Sfard, 1998, p. 8). This seems particularly useful because the notion of 'people in action' emphasizes 'the collective experience of classroom learning' (Kershner, 2009, p. 53), including the roles of, and relationships between, everyone in a class, all children and all adults, and the values and beliefs that shape their actions and attitudes.

The complex and ever-shifting nature of classrooms also challenges mechanistic understandings of teaching as merely 'tools and techniques' (Lave, 1996, p. 157). Rather, as Lave goes on to argue in her analysis of teaching and learning, 'there are ways of becoming a participant, ways of participating, and ways in which participants and practices change' (p. 157). Similarly, Rogoff (1994) conceptualizes 'learning [as] a process *of transformation of participation* itself' rather than as 'either a product of *transmission of knowledge* from others or of *acquisition or discovery of knowledge* by oneself' (p. 209, emphasis in original). In her later work, she describes this transformation of participation as 'learning to collaborate, with appropriate demeanor and responsibility, as well as learning information and skills, [and] to be responsible contributors belonging in the community' (Rogoff, 2007, p. 412). This communal responsibility for teaching and learning is shared by everyone, all adults and all children.

Finally, if participation concerns the social and collective nature of classroom teaching and learning then it must also acknowledge the importance of classroom relationships: amongst children, amongst adults, and between adults and children. This then requires that research into inclusive practices takes account of the emotional aspects of classroom experiences (Hart et al., 2004; Urquhart, 2009). This is not to promote a sentimental view of participation, but rather to recognize that if feelings such as fear, humiliation, failure, intolerance and anger are disregarded, then barriers to participation are strengthened. Similarly, processes of participation cannot be developed if pleasure, success, happiness and confidence are not valued and if respect, responsibility, kindness and resilience are not encouraged. The ordinariness of everyday classroom life can invoke all these emotions in children and adults (O'Hanlon, 2000).

BRINGING TOGETHER THE PRINCIPLES OF PARTICIPATION IN THE FRAMEWORK

Booth (2002, p. 2) argues that:

> Participation in education involves going beyond access. It implies learning alongside others and collaborating with them in shared lessons. It involves active engagement with what is learnt and taught, and having a say in how education is experienced. But participation also involves being recognised for oneself and being accepted for oneself. I participate with you, when you recognise me as a person like yourself, and accept me for who I am.

This view of participation helps to capture some of the key principles, embedded in the Framework, that have been threaded throughout the chapter so far. In so doing, it highlights the need to examine inclusive classroom practices in ways that go well beyond a simple scrutiny of teaching techniques and programmes intended for learners identified with special needs and disabilities. The Framework supports such research by encouraging careful consideration of the complex nature of classrooms and by focusing on how the values and beliefs of children and adults are revealed through the practices and activities in which they engage, as well as the countless interactions and relationships that take place between them (see Tables 23.2 and 23.3).

There is no doubt that participation is a difficult concept to pin down: whilst it can seem an attractively all-encompassing term, it can also be rather bland, even uncomfortably cosy (Woodhead, 2010, p. xxi). Similarly, Pirrie and Head (2007) are right to be scathing about the use and misuse of the term in education by both governments and academics. They are particularly critical of the notion of 'full participation', describing it as a 'chimera' (p. 24). However, the Framework does not promote the idea that 'full participation' in the classroom is ever attainable. It is not a *state* that can somehow be achieved but a series of ever-shifting *processes* that require careful attention.

The principles that underpin the conceptualization of participation, as used in Framework, are summarized below:

1. Participation concerns all members of a class and all aspects of classroom life.
2. Participation, and barriers to participation, are inter-connected and continual processes.
3. Participation is concerned with responses to learner diversity.
4. Participation requires learning to be active and collaborative.
5. Participation is based on relationships of mutual recognition and acceptance.

Further details are provided in Table 23.4. Whilst these are grouped under five headings, as is clear from the discussion so far, they are all closely interrelated. From a researcher's point of view it is important to recognize and examine these connections.

Drawing on the framework to research inclusive classroom practices

This section of the chapter describes how the Framework was used to structure the collection and analysis of data in a recent study (Florian & Black-Hawkins, 2011). Doing so offers a practical example of how this tool can support research into inclusive classroom practices. Furthermore, findings from this study have contributed to recent developments of the Framework. Most notably, revisions have subsequently been made to section 3 (see Table 23.3) so as to strengthen its focus on 'supporting everyone's learning' and the relationship between learners' inclusion and their achievements.

Table 23.4   Summary of the framework's principles of participation

1. **Participation concerns all members of a class and all aspects of classroom life:**
   Because participation recognizes the interdependence of inclusion and achievement, it concerns the experiences of all members of a class, and not only those learners identified as having special needs and disabilities, although their inclusion and achievement are, of course, important too. Participation also concerns not just the formal teaching and learning which occurs, but all aspects of classroom life, including the countless informal everyday interactions that take place amongst all its members.

2. **Participation, and barriers to participation, are inter-connected and continual processes:**

   Participation is a series of processes that are closely related to barriers to participation: increasing participation reduces barriers to participation and vice versa. These processes can be complex, ambiguous, and opaque: classroom activities that increase participation for some may reinforce barriers to participation for others. These inter-connected and never-ending processes are constantly shifting and can be difficult to change. Whilst there is no such class as a fully participatory one, it is an aspiration well worth pursuing.

3. **Participation is concerned with responses to diversity:**

   Every class is diverse in its membership, and participation is concerned with understandings of, and attitudes towards, all children and adults in relationship to their age, gender, ethnicity, sexuality, class/economic status and/or (dis)ability. Discrimination can be subtle and complex, sometimes unintended, and rarely straightforward. However, the marginalization or stigmatization of anyone, for whatever reasons, forms a barrier to their participation. This is not to deny differences between learners, but to ensure equitability for all. It also seeks to recognize that diversity in a class can be a rich resource to support everyone's learning.

4. **Participation requires learning to be active and collaborative:**

   Participation recognizes that learning, and teaching, is a social and collective activity, at the heart of classroom life. It is not simply about tools and techniques but requires all classroom members to be actively involved in making choices about what and how they learn, including how they learn together as a community; this also extends to staff participating in active and collaborative learning with colleagues. To do so involves drawing on available resources in creative ways: acknowledging, encouraging and welcoming the range of experiences, expertise, and interests that different children and adults can contribute.

5. **Participation is based on relationships of mutual recognition and acceptance:**

   The quality of all classroom relationships is crucial, including those amongst children and amongst adults, as well as those between children and adults. The nature of these relationships are enacted not only in the more formal practices of teaching and learning, but also in the countless informal personal interactions that take place on a daily basis in any classroom. All classroom relationships require a willingness to recognize and accept the rights and responsibilities of oneself and others. Thus, all members have the right to be themselves whilst accepting the responsibility for valuing others. They also have the right and a responsibility to participate in learning alongside and with others, and a right and a responsibility to participate in decision-making processes.

Background to the study

The aim of the research was to develop a deeper theoretical understanding of inclusive pedagogy: in particular, what teachers do (and why) when learners experience difficulties and how they respond to differences between children in ways that avoid the stigmatizing effects of marking some children as different. The study's overall concern was to identify inclusive classroom practices that include all learners in, rather than exclude them from, what is ordinarily available in the daily life of the classroom. The research was shaped by two main questions. These were: (i) what teaching strategies help to increase the inclusion and achievement of all children, including those identified as having special educational needs or requiring additional support for learning? And, (ii) how can examples of inclusive pedagogy in action be articulated in ways that are useful to other teachers and supportive of their practice? That is, it was important to be able to 'translate' the findings into working examples that would not only be clearly recognizable to the teachers involved in the study, but would also be meaningful to other teachers who wished to develop their own inclusive classroom practices.

The study involved nine teachers and their classes, comprising children ranging in age from 3 to 11 years, working in two primary schools in Scotland. The data collection took place in two main stages: detailed classroom observations followed by extended teacher interviews in which the teachers were encouraged to reflect on the practices that had been observed. This combination provided opportunities not only to appreciate the complexity of the teachers' classroom work (Eraut, 2007), but also the thinking which underpinned their actions (Hagger & McIntyre, 2006). Thus the interviews allowed a detailed examination of the teachers' values and beliefs about learning and learners, as emphasized in the *why* questions of the

Framework. At the same time, to avoid overly generalized discussions about inclusion, a sharp focus was maintained on the examples of their inclusive classroom practices that had been observed.

USING THE FRAMEWORK IN PRACTICE

The Framework's sections, elements and questions (see Table 23.3) were crucial in supporting the classroom observations. Although, of course, classrooms are busy and complex places, it was essential to allow the richness and variety of the teachers' classroom practices to be central to the findings, including the professional dilemmas and difficulties with which the teachers necessarily engaged as part of their day to day work. This was necessary because of the study's aim that its findings should resonate with the classrooms experiences of other teachers. Therefore, we were keen to 'capture' detailed examples of teaching strategies, rather than reduce the process of observation to a simplistic checklist approach.

Each section of the Framework, and the detail of their elements, was used to structure the observations of the teachers' practices. At the same time, we were careful to maintain a strong interest in the *strategies* used by the teachers that seemed likely to promote the inclusion and achievements of all learners in the class. Doing so helped to make the task of observing more manageable as well as ensuring that the data collected was relevant to the intentions of the research. Crucially, the questions relating to *who, what* and *why* supported us to record sufficiently detailed evidence for each of the Framework's sections. These questions were also very helpful in challenging our assumptions as researchers about what we had, or what we thought we had, observed, by identifying where gaps or ambiguities existed in our understandings.

Three particular methodological challenges were encountered during the observations, in terms of identifying strategies that the teachers used to support the inclusion and achievement of all learners in their classes:

- Sometimes a strategy might be missed because a teacher would be responding to learners' individual differences while also doing other things.
- Observers do not necessarily have sufficiently detailed knowledge about the context of a teacher's actions (e.g. planning, prior knowledge and experience, etc.) to make judgments about how far they were supporting the inclusion and achievement of all learners.
- It was not always easy to discern when a teacher was intentionally using a strategy to extend opportunities for inclusion and achievement to all learners because, inevitably, the observations focused on how that teacher responded to differences between individuals and groups of learners.

However, the Framework also helped to address these concerns. When writing up the field notes we returned to its questions and, if we were not able to articulate a clear response to *who, what* and *why*, we realized that further evidence was required. Then, either informal conversations took place with the class teachers involved and/or additional observations were undertaken.

After the observations were completed, the Framework also supported the next stage of the data analysis. The aim here was to identify strategies that were tangible examples of the teachers' inclusive classroom practices. In particular, connections were sought between the Framework's four sections to help make final decisions about which one or two strategies would most usefully address the study's research questions. These identified strategies then became the basis of the extended interviews with the teachers, and so we returned again to the Framework's *who, what* and *why* questions to support this task. Doing so enabled each teacher to

talk in depth about the practices that had been observed, creating narratives of their activities that provided us with important contextual understandings of their professional decision-making and, as discussed earlier, the values and beliefs that shaped them.

The nature of the data that emerged from the interviews (and as developed from the observations) has enabled us not only to extend our theoretical understanding of inclusive pedagogy but also to construct professional development materials that we now use in our own teaching about inclusive classroom practices. In these, based on the teachers' accounts of their work, theory and practice are threaded together. Therefore, this helped to address the second research aim regarding the articulation of inclusive pedagogy in ways that are useful to teachers and supportive of their practice. (Further details about the study, including extract from the teachers' accounts can be found in Black-Hawkins & Florian, (2012), and Florian & Black-Hawkins, 2011).

After the study

Whilst this study was undertaken by university researchers working with teachers in schools, the methods used (classroom observations and teacher interviews) are relatively straightforward for teachers to collect evidence about their own classroom practices, especially if undertaken in collaboration with colleagues and/or supplemented with reflective journals. Indeed, the Framework is currently being used in similar ways to support professional development activities with trainee and qualified teachers. Nonetheless, the Framework is intended to be approached in a flexible manner. Therefore, although the study described here did not seek the views of children or parents, nor did it draw on other forms of data that are readily available in classrooms such as, say, documentary or statistical analysis, it has been used in these, and other ways, elsewhere. Meanwhile, aspects of the Framework have also contributed to larger-scale research approaches. Notably, it has helped to shape the setting of indictors on 'participation for inclusive education' at individual, classroom, school, local and national levels (European Agency for Development, 2011).

RESEARCHING INCLUSIVE CLASSROOM PRACTICES: SOME REFLECTIONS

In their international review of inclusive education research, Artiles and his colleagues highlight how 'classroom-based' studies have been predominantly concerned with two areas. These are 'the experience of inclusive classrooms for students with and without disabilities, as well as their general and special education teacher' and 'studies about what and how to assess and teach in specific content areas' (Artiles et al., 2006, p. 89). They criticize both for focusing (albeit in rather different ways) on too narrow a view of inclusion: often just a single variable. They argue that doing so ignores how 'multiple dimensions of the classroom context flavour and complicate the process of teaching and learning'. They are highly critical of much of this work, suggesting that it 'runs the risk of shaping practice with unintended yet pernicious consequences' (Artiles et al., 2006, p. 89).

It seems that two interrelated assumptions underpin much research in this area. First, that inclusive classroom practices are about certain learners only: that is, those identified as having a special need or disability and/or those assessed as being 'behind' their peers in the acquisition of certain skills, such as literacy and numeracy. And, second, that such learners require something different from, or additional to, that which is ordinarily made available for most other learners in the class. This separating out of 'inclusive' classroom

practices (for some children) from 'ordinary' classroom practices (for most children) is a conceptual contradiction, if 'inclusion' is genuinely to be understood as being about all members of a class and all aspects of classroom life. Furthermore, these assumptions do not take account of broader understandings of diversity, and the multifaceted ways in which educational experiences can 'reify social inequalities' amongst some children through other forms of marginalization relating to age, gender, ethnicity, class and so forth (Kozleski & Waitoller, 2010).

Thus, research which seeks to examine inclusive classroom practices must take account of the rich and complex context in which teaching and learning occurs. This requires an explicit concern with the collective experience of classroom learning, as well as a broader understanding of the ways in which such learning can be shaped by inclusionary and exclusionary processes. It must also pay close attention to the experiences of everyone in the class. In particular, it seems necessary to shift the focus of research away from individuals identified as having special needs and/or disabilities, not least because doing so reinforces teachers' beliefs about their lack of specialist knowledge and discourages them from developing 'approaches to inclusive practice which are about all children' (Allan, 2010, p. 206). As Thomas (2013) suggests, it is time now for ideas about inclusion to move away from narrow concerns and 'to fold around a range of matters concerning learning, community, identity and belonging' (p. 474).

Gardner rightly insists that all educational research must be 'authoritative' – that is, 'methodologically and conceptually sound' – but also 'accessible, relevant, persuasive [and] credible' if it is to influence practice (2011, p. 559). Bridging this 'theory-practice gap' through research into inclusive practices seems essential if the findings of such work are to lead to sustainable and worthwhile developments in classrooms (McIntyre, 2009, p. 608). However, McIntyre suggests that for this to be accomplished researchers must adopt an 'open and exploratory approach based on a deep respect for the work that teachers do' (McIntyre, 2009, p. 608). The Framework is a research tool that offers just one contribution to this on-going task.

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24

Research and Pupil Voice

Jill Porter

INTRODUCTION

The place of the child's voice is enshrined in a series of international charters, and yet, despite this agreement, there continues to be a gap between the rhetoric and the practice, both at national level and at local level (Lewis, 2004; Lundy, 2007; Morgan 2011). Some have analysed this shortfall in relation to perspectives and theories of children and childhood and the underlying confidence in children's capacity to inform decision-making. In contrast, others have demonstrated the ways in which children can and should be involved at all stages of the research process. Despite the increasing use of participatory approaches and plethora of creative methods for generating and illuminating the views of children, there remain a number of tensions. Some voices are more readily heard than others and much research continues to focus on consensus with individual differences easily ignored. Furthermore, where the hardest to access require the greatest research resources, there is a delicate balance required between idealism and pragmatism (Sin & Fong, 2010).

The focus of this chapter lies with the methodological challenges for the researcher, set within an assumption that research should make a difference, and mindful of the criticisms that voice can be seen as promoting a 'sloppy and sentimental' approach, where learning about experiences does not always equate to removing the barriers that disabled children encounter (Barnes & Sheldon, 2007). Just as we recognize the ways in which the environment shapes the experience of an impairment so we need to recognize the impact of the context of the research process and on the voices that are heard. As we argued in the earlier edition of this chapter the limits to representing pupil views ebb and flow with different methodological perspectives and tools and these are not automatically offset by their combined used. Different methods can reveal seemingly paradoxical data that can require the researcher to foreground one set of data over another. Situating the child's responses within the cultural and contextual nature of the data collection process can help us to understand better multiple and competing versions of pupil views.

The chapter begins by recognizing the extensive influence of the rights agenda and the implications this has for the research process. These in turn lead to highlighting the ethical issues that underpin research and the ways in which our response to these may further marginalize some pupil views. The following sections explore the ways in which the decisions of researchers can pre-determine the responses children make. The chapter concludes by calling for researchers to develop 'ethical radar' (Skånfors, 2009) and contextual sensitivity to the ways in which their research decisions contribute to understanding children's lived experiences of disability.

BACKGROUND

The UN Convention on the Rights of the Child (UNCRC), called for State parties to: 'assure to the child who is capable of forming his or her own views the right to express those views freely in all matters affecting

the child, the views of the child being given due weight in accordance with the age and maturity of the child' (Office of the United Nations High Commissioner for Human Rights, 1990, Article 12). Following from this, there has been a torrent of initiatives worldwide involving hearing children's views in matters that concern them. These range from formal procedures, often taking a rights emphasis (UNICEF, 2004), through to the development of children as participants or co-researchers with their involvement in national and local evaluations of their provision (e.g., NECF in the UK). Many but not all have included hearing the views of the disabled child. UNICEF (2004) reports on the proliferation of independent national institutions for children's rights, such as a commissioner or ombudsman offices for children. However, there is a danger that such mechanisms over-formalise the hearing of children's views and interestingly UNICEF notes: 'Now it [the movement towards having spokes-persons for children] can only gain from rigorous evaluation-by children and young people among others- to inform the strengthening of existing institutions and the continuing development of new ones' (UNICEF, 2004, p. 10).

In parallel, there has been a worldwide movement to recognize the rights of the disabled. A landmark treaty, the United Nations Convention on the Rights of the Disabled Person came into force in 2008 and established disability as a development priority for nations. This drive is also evident in the 2010 report on the Millennium Development Goals, which makes explicit reference to the marginalization of the disabled child in education. The global concern for the Rights of the Disabled is given further direction in the recent World Report on Disability where the voice of disabled people frames each chapter (WHO & World Bank, 2011). At the heart of the report is a recommendation for access to data that will drive the disability rights agenda (Birckenbach, 2011). The spirit of the report is set out in the introduction marking the 'moral duty to remove the barriers to participation', placing the *experience* of impairment at the heart of the data collection process. Within the report, there is a priority recommendation to 'consult and involve children in decisions about their education' (p. 227). The voices of disabled people are therefore central to the Rights agenda, setting a moral imperative to privilege their views. As Felce (2002), once noted, 'Obtaining the views of people with learning difficulties – even those with severe or profound intellectual impairment – is becoming a ubiquitous imperative'. The place and value of subjective views have been surfaced.

PARTICIPATORY APPROACHES TO RESEARCH

Within this context of rights and the privileging of the lived experience of disabled children, participatory approaches of research have found many champions. These approaches have been seen as a way of creating a more reciprocal research relationship, with the potential for involving children in each stage of the research design process; setting the research agenda, advising on the conduct of the project, collecting and analysing the data, and reporting on the outcomes. The approach can be viewed as a continuum with emancipatory designs embodying most stages. Barnes & Sheldon (2007) argue with regard to children with SEN that it is unlikely that they would ever be 'in a position to control both the funding and the agenda' of research but there is an increasing expectation of funders that children would have a strong advisory role in the design and conduct of the research. Equally, it can be argued that *all* disabled children should be able to participate in the research, and no views excluded because they were too difficult or challenging to access. Sin and Fong (2010) provide an illuminating account of the practical challenges faced by the Disability Rights Commission in

contracting research on disabled children. They reveal the logistical difficulties in forming a representative advisory group, with timelines and pressures often leading to recruitment based on existing networks. They note the potential for misunderstandings, the need for ground rules and for flexibility in styles and forms of interaction. However, they also argue that 'fear of doing it badly should not prevent us from attempting it' (pp. 20–21).

ETHICAL ISSUES

The development of participatory approaches foregrounds a number of ethical issues. Sin and Fong (2010) notes that the involvement of disabled children in policy related research can at best be described as patchy, partly because the dominant discourse in social policy concerns their vulnerability, or as Aldridge (2012) states, a belief in their limited capacity for self-protection, thereby creating a tension with the Rights agenda. One consequence has been that the gatekeepers are the arbiters of the research, so that Local Authority or school level agreement together with parental consent determine the inclusion of children in the research process. In this way, children's views can be collected (or not) without their active consent and often without an understanding of the purpose of the research. If the researcher does not actively gain the consent from the child then they are reinforcing a notion (often unwittingly) that the child does not have a voice or that only certain views are worth listening to.

The practice of participatory research raises important ethical questions about the extent to which children fully understand what is expected of their involvement in all phases of the research. Consent should be seen as an on-going process with children consulted at each step along the way rather than a single hurdle that the researcher has to go through (Knox, Mok, & Permenter, 2000; Rodgers 1999), recognizing also that the exact end product and the way the research will be used by others is often not fully known at the outset (Sin & Fong, 2010). Even where the child is unable to give informed consent, there should be opportunities for assent and *dissent* to ensure that their inclusion in the study is voluntary and not as a result of coercion. Researchers need what Skånfors (2009) describe as an ethical radar – especially in schools where children are expected to comply with adult requests and staff in turn expect to direct and control activities. As Skånfors illustrates, there are many behavioural ways in which children may show 'no', making observation difficult, such as not answering a question, or leaving a room. Tozer (2003) provided children with ASD with a stop symbol with reminders that they could use it to control whether the interview continued. In our own research (Parsons, Daniels, Porter, & Robertson, 2006; Porter, Aspinall, Parsons, Simmonds, & Wood, 2005), participants were given control over the recorder, thereby being able to terminate the interview at any point they wished. One of the outcomes of this is that some groups of pupils are more likely to actively dissent than others, and we need to reflect on the implications of this both for the format and content of research. Poor ethical procedures can easily lead to the further marginalization of groups of pupils. This highlights the power relations that are inevitably present to some degree in all child research.

Further issues are raised at the point of dissemination. Beresford (2012) asks 'who knows best?' when researchers with greater life experience see a disparity between the children's contented view of their lives and their own observations and interpretations that this results from low expectations. This raises an important tension for researchers in the way the data is portrayed to reflect children's views.

Fielding (2004) poses a number of significant questions that can enable the researcher to be forewarned about potential dilemmas:

- Do we recognize the plurality of voices?
- Do we down play the voices that seem too strident and foreground those that most readily make sense to us? Are we genuinely attentive to criticism?
- How does our professional and adult status frame our perspective?
- How confident can we be that our research does not perpetuate the status quo? Can we be sure that our data will not be ultimately used for the purposes of control?

He argues that what is needed is a transformation of roles – we need to rethink what it means to be a pupil and therefore our own professional position and responsibilities.

ASSUMPTIONS ABOUT THE RESEARCH PROCESS

We can add some further dimensions to Fielding's questions as we start to consider some of the assumptions that lie behind collecting children's views, namely, that:

1. Children and young people are interested in the topic that is being addressed;
2. They have views about this topic;
3. They are willing to share these views with the researcher and believe that they will hear and understand what they are saying;
4. They are able to communicate the meaning to others;
5. They have the motivation to enable the researcher to understand their point of view.

The following quote from a young person completing a questionnaire on the barriers and supports to learning reminds us of the importance of carefully examining each of these assumptions:

I don't like it, but don't get offended. But I'll give you a tip about kids. NEVER MAKE THEM WRITE ENYTHING AS YOU WON'T UNDERSTAND. (Year 7 pupil's view about the questionnaire)

RESEARCH AS A SITUATED PROCESS

Each decision the investigator makes in the approach to collecting data frames the possibilities and potentialities of the communication of pupil views. While this is more readily apparent to the qualitative researcher, it is also true of those who choose more structured methods that include the collection of quantitative data. Denzin and Lincoln (2000, p. 4), in a highly quoted text, state that 'each practice makes the world visible in a different way'. This produces the possibility for multiple versions of pupil views which unless they are situated within the context of the data collection process might be seen to be competing accounts. The following section sets out to illustrate the need for contextual sensitivity in the collection, analysis and portrayal of the data, illustrating the need for vigilance in recognising the ways in which decisions concerning the format and form of the data collection activity impact on pupils' responses and responsiveness.

METHODOLOGICAL DECISION-MAKING AND PUPIL RESPONSES

One early decision that researchers are often called on to make is whether the data collection process will take place in an individual or group setting. Georgeson (2012) illustrates that individual responses collected

through questionnaires are often preferred by teachers as a time-efficient method of asking all pupils for their views with online versions quickly providing a report of the data, but their limitations should be recognized. Although questionnaires provide anonymity and can reduce the imbalance of power, there is little opportunity for targeted follow-up unless pupils are explicitly encouraged to come forward through being asked who they would like to talk to and to volunteer their name. Opportunities for follow-up are important as questionnaires can provide incomplete insights as the responses are often terse and limited to one- or two-word written responses. Equally, many pupils may elect not to give responses at all. This could indicate that pupils have little interest in the topic or have nothing to say or that they are not convinced that their views if offered would be addressed. It is important that where questionnaires are used, pupils are confident that their views are valued and that action will occur as a result. Schools therefore need to share the overall outcomes of the questionnaire (whilst being mindful of issues of confidentiality) and to indicate what changes will happen as a result. There is some research to suggest that pupils write more when the questionnaire is online and the presence of the researcher is less apparent (Hill, 2006; Porter, Daniels, Georgeson, Hacker, & Gallop, 2008).

In contrast, group methods provide possibilities for the creation of a consensus over and above that of the aggregation of individual views. The social setting of the group creates its own culture for disclosure with individuals checking out what it is permissible and advisable to say. Massey (2011, p. 24) observes: 'Participants are likely to limit their conversation to content that exposes them to least controversy'.

A group setting may well involve some kind of rule setting promoting listening to one another. The following instructions by a teacher–researcher illustrate the boundaries that might be set: *Listen to each other No put downs like in Circle time Recognize that we all have different ideas about what helps and what gets in the way. It's really important that everyone gets a say.*

A group endeavour has many strengths and is consistent with a focus on making organizational changes to provide a more inclusive learning environment rather than focusing on individual needs. Groups help children to prod one another's memory, the presence of friends gives confidence and the activity can be more fun (Punch, 2002). They also grant the relative safety for the novice researcher of making it more likely that some views will be given and avoid the downward spiral of discussion descending into question and answer with 'the questions getting longer and the answers shorter' (Ravet, 2007). There is evidence to suggest that mainstream children may prefer group settings especially when talking generally about problems (Punch, 2002) and single-sex groups can be better for girls, although not for boys (Curtis, Roberts, Copperman, Downie, & Liabo, 2004; Porter et al., 2008).

Using a method that combines individual and group processes offers a number of advantages. The format of Nominal Group Technique (NGT) usually combines cycles of individual and group activity as individuals start by thinking or representing in some way their own ideas prior to sharing them with the group (if they wish) one at a time in a round robin. When all the ideas have been given they are clarified for the group through discussion and then prioritized through multivoting. Given the difficulty of managing focus groups to ensure that all feel able to contribute and one member does not dominate, the structure of NGT is helpful for the novice data gatherer (MacPhail, 2001).

Porter (2012) in a study of how views are maintained, modified or rejected during NGT illustrates the social processes that contribute to both individual and group views and notes some of the advantages of the method. The rounds of activity provide extended space for pupils to reflect and this may be particularly

important where pupils are less articulate, less confident or require more time. The group setting stimulates pupils to engage with the question and to consider a wide range of aspects, indeed new aspects can arise in the course of presentation that have not occurred to individuals when they considered the topic on their own. There is an avenue for participants to keep some views between the facilitator and themselves. This is particularly important where the topic is sensitive and where the individual does not consider that their view is likely to be reflected in those of others. The opportunity to vote on both the group suggestions and on those individually generated acknowledges that consensus is not the only valued outcome and recognizes the importance of individual differences.

Group settings, however, may not be an appropriate context for those with more significant communication difficulties including those who require a more individualised approach (Woolfson, Harker, Lowe, Shields, & Mackintosh, 2007) and for those who find it difficult to take turns, are shy or who can get angry or impatient with their peers (Curtis et al., 2004). An individual setting can provide space to talk about more private or potentially embarrassing things and without the possibility of being interrupted (Punch, 2002) and the style of interaction can be tailored to the individual.

COMMUNICATION

Researchers are often interested in abstract concepts, learning, wellbeing, relationships, which they then have to operationalize to devise situations that will elicit relevant information. Finding the right language to do this so that it is relevant and understood as intended by all children can be tricky (Deed, 2008; Punch, 2002). The actual phrasing of questions or comments, the sequence and order of questions, all have the potential for surfacing some views over others. Where pupils are articulate, they can check whether they have understood, however not all children will have the skills or feel in a position to do so.

Studies based on an analysis of forensic interviews, using both naturalistic field work (e.g., Cederburg, Orbach, Sterberg, & Lamb, 2000; Lamb & Fauchier, 2001) and simulated studies (e.g., Bruck, Ceci, & Hembrooke, 2002; Krahenbuhl & Blades, 2006; Orbach & Lamb, 2001) reveal the impact of repeated questioning, being asked either the same or similar questions. The research has supported the use of open questions with children likely to respond with accurate information and less likely to produce contradictory statements; however they are also less likely to be complete answers (Lamb & Fauchier, 2001). Open prompts ('tell me more about that?') are then a good response. In contrast, option-posing questions (often used with the least articulate), together with suggestive or leading questions, are much more likely to produce inaccurate responses. Repeating a question leads to a decrease in accuracy (Krahenbuhl & Blades, 2006), and this is particularly the case for questions that are unanswerable, which children will try and answer rather than replying that they don't know. A similar finding occurs but to a slightly lesser degree with responses that require an opinion. Quite reasonably, children appear to assume that adults ask them questions for which they should know the answer, and if adults are not happy with the one they received, then they ask again.

This research provides an insight into the difficulties faced when children are less articulate, either because of having communication difficulties or language difficulties or learning difficulties. Booth and Booth (1996), however, also write about the place of closed questions and the importance of listening to silence. What children don't say can also be revealing.

There is a popular account in the literature of the tendency of people with learning difficulties to acquiesce (or say yes) (Finlay & Lyons, 2002; Sigelman, Budd, Spanhel, & Schoenrock, 1981) with explanations of their greater suggestibility or desire to please. This characteristic is not, however, specific to this group, it also happens when children don't have an opinion, when a question is too complex, or they have been asked an unanswerable question. Research also illustrates the ways in which children and young people with learning difficulties may be more likely to say they like rather than dislike providing views that sometimes contradict the opinions and observations of others (Germain, 2005; Wright, 2008). This is also reflected in research with young typically-developing children (Fritzley & Lee, 2003). Fritley and Lee give some interesting suggestions of why children may find a particular response more salient than another, including that it may be seen as an effective way to stop adults questioning. We need to consider whether such agreement therefore is an artefact of the interrogative force of a question, or one that involves an abstract concept or a judgement that is too difficult, or whether we are demanding an opinion about something that has never been considered in detail before. Lewis (2004) draws our attention to the importance of children feeling that they can ask for clarification or say simply that they don't know. Some interviewers use a device, such as a squeaky toy, which the child pushes to signal 'don't know'. Equally, it is important that the setting does not suggest that the adult knows the answer or indeed that there is a right response.

Children's cognitive skills also play an important role, in particular memory as children are less likely to be interviewed about events as they happen. It is therefore important to consider the time lag between an event and being asked about views, and to recognize that cognitive demands vary between being asked to describe an event that has just happened, to anticipate something that will shortly happen and to make a longer term prediction (Dockrell, 2004). Much research with young children and those with learning difficulties uses a range of stimulus material, often photographs to prompt the child drawing on our knowledge of the differential ease of recognition over recall. There is however a body of research reviewed by Dockrell (2004) that indicates how hard it may be to recall emotions accurately with a tendency to overstate an initial emotional reaction if the event has been successfully responded to. How researchers respond to these linguistic and cognitive challenges shape the responses and responsiveness of pupils.

There are many pitfalls to be navigated in the ways in which support is given to avoid pre-determining what is communicated to the researcher. The following is taken from an observation of a special school assistant trying to interview Oliver in year 7 of a special school, following a structured set of questions that were part of a school designed questionnaire. The transcript illustrates the ways in which faced by a difficult task, the interviewer provides 'a supportive cradle' (Antaki, Young, & Finlay, 2002). She rewords questions in a way that she feels is more likely to elicit a response, often referring to something that she explicitly knows. As a result, the child eventually produces the 'right' answer and previous responses are forgotten. This illustrates the dangers of trying to change what is for the child an essentially unanswerable question into a kind of dialogue.

QUESTIONNAIRE ITEM: DO YOU HAVE FRIENDS AT SCHOOL?

Teaching Assistant asks: *Who's your friend Mrs….?*

Oliver: *Joyce Jac*

Teaching Assistant: *Who do you run round the playground with?*

Oliver: *Naomi*
Teaching Assistant: *So you have friends*
Oliver: *No*
Teaching Assistant: *Have you got friends at school?*
Oliver: *No*
Teaching Assistant: asks again
Oliver: *Yes*

(This was recorded by the member of staff as asking the question twice and answering yes)

The transcript reveals the tendency for her to repeat questions that have a surprising answer – in one sense, this is a natural response to check for misunderstanding, however, it can also suggest to the child that it wasn't the right answer. She asks the friend question three times – he should in her view be able to answer this. While this approach can be seen as shaping the child's answers it also illustrates the ways in which the assistant tries to contextualize the questions to make them more meaningful to the child, more personalized, and more answerable. One of the challenges for her is then to find a way of portraying the context for his views in her records.

If we turn now to consider children with only limited independent ability to use a formal linguistic code, we are likely to rely on others to make inferences about meaning and to distinguish between intentional and non-intentional communicative acts. This group of children are not well placed to contradict an interpretation (Grove, Porter, Bunning, & Olsson, 1999). Clearly, researchers who do not know the child are disadvantaged not only in understanding the child, but when liaising with others being certain about the ownership of the message. Researchers have debated the veracity of data collected through a third party (Hatton & Ager, 2002; Schalock et al., 2002; Schwartz & Rabinovitz, 2003) and have recognized that surrogates *may* consider the standpoint of the individual including their interests preferences, values and past experiences (Freedman, 2001) or make a response that reflects their own position. While staff (and parents) may assume that they can provide this information by proxy, research has consistently indicated that there may well be divergences between these sources of information (Porter, Downs, Morgan, & Ouvry, 2001; Wright, 2008). If facilitators or proxies are used, then any report needs to acknowledge how views were collected so that the reader/listener can make a judgement about whether the conduit for views may have distorted the evidence. Rigorous and systematic checking of the data including a search for contradictory evidence are important parts of the validation process (Porter, 2003).

These potential difficulties may lead researchers or professionals to conclude that it is preferable to use indirect methods (such as observation of the child in particular contexts) in order to gauge children's views, particularly of those with profound or multiple learning difficulties (Ware, 2004) or asking others to speak on behalf of the child. Research on the use of advocates gives us some important further suggestions for the characteristics needed by someone who supports them. These include being seen as independent, willing to put forward views that they do not share, having time and respect, and lastly inspiring confidence (Dalrymple, 2005). Facilitators who are well-known to the child may be reassuring, but may also inhibit the child from expressing negative views about, for example, experiences in school. Facilitators need to liaise with researchers/interviewers beforehand about the purpose of the interview and how much to lead. They also need ample time before the interview to consider how best to sign a point/question so that it is more likely to be

understood/interpreted appropriately by the child.

DEVISING ACTIVITIES

Concern with children's engagement will prompt researchers to consider the extent to which methods stimulate thought and facilitate reflection. One important option is to give children a choice, and research suggests that one of their prime concerns is about fairness and inclusiveness, methods need to be accessible to all (Hill, 2006). Curtis et al. (2004) write about a cautious and unrushed approach to research with disabled children. During the course of a previous study, a number of children in different settings stated that they didn't like assemblies or 'mat' time and when asked why, said they were just about talking (Porter et al., 2008). Activities therefore provide interest in what might otherwise be seen as a dull task. The use of puppets, mapping, photography, role play, drama, dance and art all provide vehicles for both engaging children and accessing and representing their views through alternative media. These are well documented in the literature (e.g., Bragg, 2007; Clark & Moss, 2001; Fargas-Malet, McSherry, Larkin, & Robinson, 2010; Kirby, 1999). These materials vary in the extent to which they incorporate approaches applicable to all disabled children and young people, but there have been a number of notable projects that have specifically addressed the needs of children with significant communication difficulties (Aitken & Millar, 2004; Watson, Feiler, & Tarleton, 2007).

In selecting options, the researcher needs to consider how the activity frames the child's understanding of what the research is about and what they are consenting (or assenting) to be part of. A further question for the researcher is to consider how they will validate their interpretation of the pupils' responses.

If we take photography as an example of a method well used to collect children's views, one needs to consider the contextual forces that influence what constitutes a 'good' picture (the composition, the sharpness and clarity of the focus, whether people are smiling, who will see it, what others will find interesting) and this may impact on the extent to which a researcher can be confident of how it represents a pupils views. These issues are only partially offset by enabling pupils to select which ones to share with others. The investigator then needs to consider how to interpret the photograph, especially where the pupil is not able to enter into a dialogue about why they took it. Photographs therefore provide a good example of the need to weigh up the advantages of stimulating engagement and interest in the task and the potential for shifting the power in the research relationship against the possibilities that the adult will not fully understand the meaning in that communication.

The low-tech option of drawings has the advantage over photographs of focusing attention on thinking about a particular event of the child's choosing during their construction. This is useful for children with learning difficulties, who can find it easier to talk about difficulties in the context of specific events rather than in a general sense (Connors & Stalker, 2002). They provided important time for reflection in a way that straight questions and answers don't (Punch, 2002). However, these too illustrate ideas that are socially constructed as children may copy others or draw what has been well received in the past either by their peers or by teachers.

It is usually necessary to validate the meaning derived through these activities through the collection of other data (Porter & Lacey, 2005). In the broader field of pupil voice multiple methods has been proposed as

key in gaining a more authentic portrayal of what pupils really think (Flutter & Ruddock, 2004). The recurrent message from workers in the field is of the importance of exploring children's views flexibly, collaboratively and variously. There are however still a number of unanswered questions about how and when we integrate the data collected from different methods (Teddlie & Tashakkori, 2009) and recognition of the ways in which this influences the picture that emerges. The themes/issues/categories that arise from one set of data may be incomplete when applied to a second set. The second set will lead to a re-conceptualisation of the issues/themes or categories. The researcher needs to consider whether the two sets of data should be understood in isolation but then related together or conceptually form a whole. Porter (2011) illustrates the challenges in relation to studies of children on the supports and barriers to schooling where differences in the data between two methods revealed the contextual forces operating under different conditions of the data collection process.

CONCLUSION

Researchers face a number of dilemmas and tricky issues as they navigate their way to developing approaches that encourage the participation and engagement of all disabled children in studies that will make a real difference to their lives. While the welter of charters have often led to formalized responses to hearing children's views, there has also been a proliferation of studies using creative and innovative approaches including those which are responsive to children who have limited formal systems of language. These in turn create contexts which can obscure or alter children's understanding of the research as a process of investigating. Indeed, Gallacher and Gallagher (2008, p. 508) refer to the dangers of eliciting 'schooled docility towards such activities' that regulate children's contribution, illustrating once again the more challenging aspects of how we position children in the research process, how we overcome the power imbalances, and how we avoid privileging the voice of some children over others.

The reader was invited to consider the assumptions that lie behind the research in order to inform their own decision-making in the design process. An argument for contextual sensitivity was made, for greater awareness of the cultural and contextual nature of the data collection process. The virtues of an 'ethical radar' were recognized, one that could respond to situations as they occurred rather than simply following a set of pre-determined procedures. More than ever we need to recognize that there are no universal solutions, nor a perfect methodology (Nind, Benjamin, Sheeny, Collins, & Hall, 2005; Northway, 2000) waiting out there to be discovered. As others have argued, there is a need for transparency around the difficulties and a fuller sharing of the methods used, including those which were not successful (Beresford, 2012). This calls for a willingness to be flexible in using more innovative approaches and developing new skills, and to be thorough and systematic in validating our analysis. It is likely that such research will take longer and require a much greater level of commitment than that of a hit and run researcher (Vincent & Warren, 2005). With this commitment comes responsibility for locating individual narratives within an understanding of the ways in which the environment, ourselves included, shape those experiences.

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25

Using the Capability Approach to Evaluate the Well-being of Adult Learners with Dis/abilities

Barbara Ridley and Michael F. Watts

INTRODUCTION

'Lifelong learning for all' insisted the Organisation for Economic Co-operation and Development (OECD) conference optimistically during the 1996 European Year of Lifelong Learning. The same year generated a number of international reports that emphasized equal opportunities, access to and the importance of evolving additional ways of learning other than dependence on a traditional public education system (European Commission, 1996; OECD, 1996; UNESCO, 1996). But in spite of the rhetoric, in practice lifelong learning was narrow and instrumental, tied to economic outputs and global competitiveness, at least within the European context. In the UK, Tight (1998) noted the unquestioning acceptance of deriving economic benefits, social cohesion and more fulfilled citizens. No arguments were offered, especially not dissenting ones (p. 478). Lifelong learning, when translated into policy, was driven by skills that fed the economy and focussed on 'meaningful qualifications and meeting national targets. The more inspirational, emancipatory and individual elements of the vision (were) lost or down-graded' (p. 483). Indeed, Taylor (2009) argues that UK policy relegated any wider ideas of liberal education and community development to 'rhetorical flourishes'. But this is not simply a UK phenomenon: economic objectives have similarly driven government lifelong learning agendas across developed societies (Taylor, 2009). As the Group of Eight summit stated, 'Adaptability, employability and the management of change will be the primary challenges for our societies in the coming century. Mobility between jobs, cultures and communities will be central. And the passport to mobility will be education and lifelong learning for everyone' (Group of Eight, 1999). The same interpretation of lifelong learning can also be seen in countries of the South, for example, in the 2012 World Bank report on education in Ethiopia (Joshi & Verspoor, 2012).

The UK reports identify potential non-participants in lifelong learning including the disabled people. Furthermore, all these reports tend to *blame* these groups and expect them to change, to value and participate in further and higher education. But lifelong learning does not have to equate to lifelong schooling and, as Merriam, Caffarella and Baumgartner (2007) indicate, can include learning in informal settings, in social and recreational contexts, all of which resonate with the research reported in this chapter. In 2009, Schuller and Watson's Inquiry into the Future for Lifelong Learning (IFLL) emphasized the need for reform of government policy. It criticized the over-emphasis on young people and the 'already advantaged', identified a model based on four age-related 'key stages' and advocated nine themes ranging from prosperity and work to well-being and happiness. They raised questions such as 'What sorts of life do we wish to lead? What do we value most, and how can we lead a good life? How can learning help us achieve what we want from our lives, for ourselves and for our communities?' (Schuller & Watson, 2009, p. 5). The IFLL document recognizes that

links between well-being and learning are complex, but nevertheless argues that, 'adult learning has a demonstrable impact on well-being' (Schuller & Watson, 2009, p. 8). Moreover, the authors acknowledged the work of Amartya Sen, the welfare economist and Nobel laureate, who along with Martha Nussbaum developed the capability approach, a freedom-based evaluative framework for assessing human well-being (Nussbaum, 2000, 2011; Sen, 1992, 1999). This chapter provides an overview of the approach and is illustrated with reference to dis/abled learners in the lifelong learning sector. However, the issues raised are pertinent to evaluations of well-being for those with special educational needs more widely.

Given the earlier emphasis on economic gain, qualifications and outputs, it is unsurprising that much of the literature on the benefits of lifelong learning similarly emphasize these relatively easily measurable gains (Dorsett, Lui, & Weale, 2010; Jenkins, 2006; Stenberg, 2010). Kirby, Knapper, Lamon and Egnatoff (2010) attempted to develop a 'generic lifelong learning scale', that enabled respondents to self-report against a set of criteria drawn from the literature. They concluded that the scale is useful in identifying inclinations towards lifelong learning, evaluating interventions and student strengths and weaknesses, though they noted that further empirical studies were needed. Other studies have tried to evaluate less tangible gains. Schuller, Brassett-Grundy, Green, Hammond and Preston (2002) took a biographical approach to map the wider benefits of lifelong learning, trying to find causal links but also acknowledged the problems inherent in doing so. Their analytic framework considered the interplay of identity, and human and social capital conceived as a dynamic matrix on which to map effects of learning or establish causal chains. McIntyre's (2012) study found an increase in social capital through lifelong learning in the community. However, what all these studies have in common is a focus on outputs, on what has been achieved. Or, as Sen would term it, on achieved functionings.

The capability approach is concerned with the real opportunities people have to pursue lives and ways of living that they value and have reason to value. Commonly associated with evaluations of poverty reduction programmes in the developing world, it is grounded in a rejection of utilitarianism and resource-based approaches to the measurement of well-being. Instead, it acknowledges human diversity in terms of innate qualities, preferences, cultural and environmental settings and of preferred outcomes. This multi-dimensionality makes it an appealing but complex approach that has much to offer in theorizing well-being although, as yet, there are few studies demonstrating its use in practice in special education or disability studies. Nevertheless, it has proved to be an effective means of addressing issues of social injustice and has considerable potential to address the problems of explicit and implicit deficit models of dis/ability (Baylies, 2002; Burchardt, 2004; Florian, Dee, & Devecchi, 2008; Terzi, 2005a; 2005b, 2007, 2008; Watts & Ridley, 2006, 2007, 2012).

The capability approach regards assessments of well-being that focus on goods and resources (including goods in the Rawlsian sense) as inadequate. Goods are of value only insofar as the individual is able to make use of them, but people do not have the same abilities to utilize the same possessions. Sen's frequently-cited example that the possession of a bicycle is of no use if, for example, the owner, has never learnt to ride it or, in the context of this chapter, has disabilities that make riding it impossible (1985, p. 6), illustrates this point. To achieve the same valued outcome of mobility, a person with disabilities may require other inputs (e.g., a viable public transport system) and so the goods and resources she possesses can only ever be an imperfect proxy for her well-being. Sen notes that:

A person with disability has special needs and thus requires more resources to escape a poor life … Such disparities in personal characteristics and circumstances are not just 'exceptional cases', as they are sometimes made out to be. On the contrary, interpersonal variations are pervasive, and relate both to disparities in 'personal' characteristics such as gender, age, and proneness to illness, as well as 'social' features such as epidemiological surroundings and other environmental determinants that influence the conversion of personal resources into the freedom to lead lives *without* unacceptable deprivations. (Sen, 1994, p. 334, emphasis in original)

Any account of well-being must therefore take into account human diversity, which is 'no secondary complication (to be ignored, or to be introduced "later on"); it is a fundamental aspect of our interest in equality' (Sen, 1992, p. xi).

CAPABILITIES, FUNCTIONINGS AND FREEDOM

In order to focus on human well-being as the substantive freedom individuals have to choose and lead lives they value and have reason to value, Sen differentiates between the notions of 'functionings' and 'capabilities'. Functionings are the 'beings and doings' a person values and has reason to value (Sen, 1999) and they:

can vary from such elementary things as being adequately nourished, being in good health, avoiding escapable morbidity and premature mortality, etc., to more complex achievements such as being happy, having self-respect, taking part in the life of the community, and so on. (Sen, 1992, p. 39)

In order to function in society, a person needs a 'multitude of specific functionings' (Pettit, 2001, p. 8). Capabilities are the potential to achieve those functionings or combinations of functionings, making capability 'a set of vectors of functionings, reflecting the person's freedom to lead one type of life or another' (Sen, 1992, p. 40).

Nussbaum emphasizes the significance of social structures by distinguishing between internal capabilities and those that occur in combination with external conditions that allow functioning (2000, 2011). She argues that a person's innate 'equipment' (that is, her characteristics, intellectual capacities and bodily health) is trained and developed through her interaction with society. There is an important difference between these 'internal capabilities' and the individual's 'combined capabilities' which are 'the totality of the opportunities she has for choice and action in her specific political, social and economic situation' (2011, p. 21). Pointing to social constructivist models of disability, Nussbaum suggests that social structures may enable the development of internal capabilities through education but still restrict opportunities to express them.

A person's functionings and capabilities are closely linked but significantly different. Functionings are 'in a sense, more directly related to living conditions, since they *are* different aspects of living conditions' whilst capabilities are 'notions of freedom in the positive sense: what real opportunities you have regarding the life you may lead' (Sen, 1987, p. 36, emphasis in original). The distinction between capabilities and functionings is crucial since it allows the capability set to provide the informational basis to evaluate well-being by focussing on what a person has the real potential to achieve rather than what *has* been achieved: one might have a range of achieved functionings, yet still not be free to achieve others, for example, due to political or cultural restrictions. The capability set therefore not only identifies freedoms but also limitations.

If well-being is about the life one is able to lead, then the appropriate 'informational space' for its evaluation is not goods or preference satisfaction, or even functionings, but the freedoms – the capabilities – one has to

engage in ways of living that are valued and that there is good reason to value. This notion of freedom is reflected in Nussbaum's description of the individual as 'a dignified free being who shapes his or her own life in cooperation and reciprocity with others, rather than being passively shaped or pushed around by the world in the manner of a 'flock' or 'herd' animal (Nussbaum, 2000, p. 72). This invests capabilities and the sense of human worth and dignity. However, addressing the freedom for every individual to choose valued beings and doings, as advocated by the capability approach, gives rise to two fundamental questions when considered in the light of human diversity: what are 'valuable' beings and doings?; and who decides that they are valuable? Identifying beings and doings as valuable simply because an individual personally values them is not enough, nor should there be ever-increasing options for meaningless over-consumption (Sen, 1987). They should have some wider credibility as valuable, which raises the issues of human diversity and multiple realizability given that different people will have different valued outcomes.

Sen identifies four aspects of diversity: personal characteristics, external circumstances, inter-individual variation (the ability to convert resources into valued functionings) and inter-end variation. This latter variant – which recognizes that different individuals value and have reason to value different aspects of the good life – is why he is unwilling to specify a capability list. According to Sen, capabilities should be decided through social, democratic and deliberative processes (1992, 1999) that preclude the production of a definitive list. Nussbaum also defends the role of democratic deliberation in ascertaining what constitutes the good life. However, whereas Sen maintains this should be determined at the local level, she argues for a universal set of central capabilities (e.g., Nussbaum, 2000, pp. 78–80, 2011, pp. 33–34) that should be available to everyone. Although she claims her list of central capabilities derived from wide-ranging consultation, the processes of deliberative democracy are more important for Nussbaum in ascertaining threshold levels (for example, in determining what a given society considers a minimum level of education necessary for human flourishing). Her aim is to provide a philosophical rationale for basic entitlements that should be 'respected and implemented by the governments of all nations' (2006, p. 70).

Sen agrees that 'Public policy has a role not only in attempting to implement the priorities that emerge from social values and affirmations, but also in facilitating and guaranteeing fuller public discussion' (1999, p. 281). He considers that theories of justice have historically neglected issues around disability which, in turn, has 'tended to bias practical policies in the direction of inaction, and has even contributed to suppressing the sense of inadequacy that can reasonably accompany the failure to take a responsible view of the social obligation to the disabled' (2004, p. 1). Baylies (2002) has criticized Nussbaum's list for suggesting that being 'able to form a conception of the good and to engage in critical reflection about the planning of one's life' (Nussbaum, 2000, p. 79) could exclude individuals with cognitive impairments but in her later work Nussbaum explains that she 'uses a flexible and variegated conception of freedom that is capable of appreciating the capacity for freedom in citizens with mental impairments, rejecting political conceptions of the person grounded in an idealised rationality' (2006, p. 216). She further suggests that 'a decent society will organise public space, public education, and other relevant areas of public policy to support such lives and fully include them, giving the caregivers all the capabilities on our list, and the disabled as many of them, and as fully, as is possible' (2006, p. 222). Her arguments foreground the individual: 'the person, not the group, is the primary subject of political justice, and policies that improve the lot of a group are to be rejected unless they deliver the central capabilities to *each and every person*' (2006, p. 216, emphasis in original).

USING THE FOUNDATIONAL CONCEPTS OF THE CAPABILITY APPROACH

Capabilities, functionings and freedom are the foundational concepts of the capability approach. In this section we illustrate how they might be operationalized by referring to our evaluation of the Drake Music Project (www.drakemusicproject.org), which is a UK-based registered charity in the lifelong learning sector that uses electronic and computer technologies to enable severely disabled people to explore, compose and perform music (Watts & Ridley, 2006, 2007, 2012). It can therefore be related to Nussbaum's concern that the truly human life incorporates opportunities for flourishing in the domain of the senses, thought and imagination (2000, pp. 78–78; 2011, p. 33) but it must be remembered that this capability can be realized in many different (and non-musical) ways.

In order to begin our capability-based evaluation of the project, we had to ask what particular functionings the musicians valued and what freedoms they had to achieve them. Interview data showed that their primary valued functioning was musicianship. They wanted to be seen and judged as musicians and not as participants in a therapeutic exercise reifying their disabilities. As one of them explained:

> Being with the Drake Music Project is a chance to be a musician and not someone with a disability … If people think we do music therapy, that's what people with disabilities do. But here, with the music, we're musicians. It's just that we're musicians in wheelchairs … The music gets us away from being disabled. It's like it gets us away from the wheelchairs. But if you think it's music therapy, then that's like it puts us back in the wheelchairs.

Throughout the evaluation, the musicians stressed the importance of the relationship between their music-making and their identity as musicians. In the analysis, therefore, we had to address the opportunities they had to make music and then consider the opportunities this music making presented to challenge societal views that made the musicians, as they described it, 'even more disabled than we are'. That is, we had to engage with Nussbaum's concepts of internal and combined capabilities. According to one of the musicians:

> [Drake] is all about enabling disabled people to be on the same stage, under the same spotlights as anybody else, playing music. It's a way of integrating people, communicating, socializing. And also you learn music, and learn about working together and keeping together. It's enabled me to play at the Millennium Dome, to meet Jools Holland, to go to Cuba, to communicate with people in a serious way, with one interest, music, and about disability as well.

Drake enabled the development of the internal capabilities through its specialized equipment and training and it facilitated the realization of those capabilities into achieved functionings – sometimes, as indicated here, in the most spectacular of ways. Making and performing music validated the participants' identities as musicians rather than as people with disabilities. This in turn validated their musicianship as participatory, not therapeutic, and became a tool for empowerment as they took responsibility for projecting this identity.

However, others have not been so lucky. Funding cuts have led to reductions in the number of people able to take part in the programmes with attention often focussing on those participants who already possessed some musical abilities and the less able falling by the wayside. So Drake had enabled the development of the participants' musicianship but, because of funding cuts, restricted its use in practice. This illustrates the distinction between internal and combined capabilities, 'a useful heuristic in diagnosing the achievements and shortcomings of a society' (Nussbaum, 2011, p. 23), and, in terms of this chapter, the achievements and shortcomings of lifelong learning provision.

This also points to the importance of considering the quality of options that may be available:

> A set of three alternatives we see as 'bad', 'awful' and 'dismal' cannot, we think, give us as much real freedom as a set of three others we prefer a great deal more and see as 'great', 'terrific' and 'wonderful'. The idea of effective freedom cannot be dissociated from preferences. Freedom is not just a matter of having a larger number of alternatives, it depends on what kind of alternatives they are. (Sen, 1990, p. 470)

Living in a society that hides disability away and makes no provision for music education for disabled people would influence the musicians' abilities to develop internal musical capabilities and their opportunities to realise combined capabilities. Thus, organising social arrangements and educational opportunities to ensure those who are disabled can participate in society, in lifelong learning and shape their own lives is a matter of social justice.

This may require the uneven distribution of material resources but whilst more resources might improve well-being (for example, by funding additional Drake sessions and so increasing the realization of internal and combined capabilities) the capability approach rejects the assumption that more goods and resources automatically enhance well-being. The functioning of making music is dependent upon the ability of the musicians to convert the musical resources. For some, their physical characteristics meant they could not play conventional instruments. One musician, with cerebral palsy, for example, required a foot switch control to release notes that had been previously programmed into a computer in order to make music – in this case, allowing him to play (i.e., purposely create the sound of) the bass guitar. A conventional bass would have been of no use to him whatsoever. However, a goods-based assessment, focussing perhaps on relative costs, would not necessarily be sensitive to this. As Sen notes, 'what we can or cannot do, can or cannot achieve [depends] on the variety of physical and social characteristics that affect our lives and make us what we are' (1999, pp. 70–71).

Sen and Nussbaum both argue that well-being should, where possible, be assessed in the evaluative space of capabilities. A comparison between two people who value music-making and would like to play the guitar highlights the importance of capability-based well-being assessments. One, an able-bodied person, could purchase a conventional instrument and take a few lessons if she wanted but cannot be bothered to do this. The other, perhaps with cerebral palsy, cannot play a conventional instrument and cannot afford either the computer-based technology available to the bassist with Drake or the training needed to use it. Neither person has achieved the functioning of making music but their opportunities – that is, their capabilities – are significantly different: one chooses not to make music but the other, constrained by her impairment and the circumstances that disable her, has no choice.

ADAPTIVE PREFERENCES

However, this second person may come to accept the limitations of her circumstances and adapt her preferences. The adaptive preference problem is a psychological 'trick' that enables the individual to come to terms with impoverished circumstances and so masks the difference between 'what people really prefer and what they are made to prefer' (Teschl & Comim, 2005, p. 236). It concerns the internalization of external constraints and resignation to these limitations can affect individuals' desires as well as their apprehension of satisfaction. A person with profound disabilities and no access to specialized equipment and training, for example, may give up the struggle to realize her musical ambitions and then downgrade her aspirations in

order to reduce the tension between what she wants and what she can get. Or lifelong habituation to the absence of appropriate provision may have persuaded her that she never had any musical aspirations. In both instances, however, her self-reported preferences may be satisfied.

The adaptive preference problem severely limits freedoms but it is significantly different from the failure to achieve functionings. It involves the denial of valuable doings and beings because they seem unobtainable and their replacement with something that is perceived as possible. Well-being assessments that fail to account for the adaptive preference problem are therefore deeply unfair to those who are persistently deprived but who make 'great efforts to take pleasure in small mercies and to cut down personal desires to modest – "realistic" – proportions' (Sen, 1992, p. 55) in order to 'come to terms with their deprivation because of the sheer necessity of survival' (Sen, 1999, pp. 62–63). Yet adaptive preferences are reversible in the sense that people can 'unlearn' their acceptance of impoverishment. This, though, requires reflexivity and opportunities for learning that enable individuals to challenge – rather than reproduce – social inequalities. As Nussbaum notes:

> People with physical disabilities … want to be respected as equal citizens with options for diverse forms of choice and functioning in life, comparable to those of other citizens. Nor can we avoid the problem of adaptive preferences here; so even if people say that dependency is what they prefer, that fact should not stop us from offering alternatives. (2006, p. 189)

Addressing the adaptive preference problem requires taking account of the counterfactual nature of capabilities and considering what the individual would do if her circumstances were different – or if, in Sen's words, she had control of 'the levers of power' (1992, pp. 64–69). In this context of disability, it may seem that the most obvious question to ask is what the person would do if she were not disabled. However, this is not so much a counterfactual question (what would the person do if her circumstances were different?) but a counteridentical question (what would the person do if she were different?). Although it provides useful insight, it also risks denying the respect for human diversity that is central to the capability approach. It is therefore more appropriate to follow the social constructivist interpretation of disability and ask what the person would do if the constraints that render her disabled (including the absence of appropriate resources) were removed.

The evaluation of Drake provides a concrete example of this counterfactual question. Prior to their engagement with the project, some of the musicians had believed that making and performing music was beyond their reach. They were content simply listening to music instead and, although they enjoyed it, this marked the limitations of their reduced musical aspirations. Their acceptance of the lack of appropriate opportunities to make music emphasized the limits of their aspirations and signalled their adaptations: had they been asked then if their musical aspirations were satisfied, they would have answered 'Yes'. The opportunity to practice and perform as musicians (who happened to be disabled) rather than accept the limitations of listening to music or engaging in music therapy, enabled these musicians to acknowledge and challenge their adaptations. The presence of Drake changed their circumstances and allowed them to unlearn the acceptance of the unjust structures that had reduced their understanding of what constituted a truly human life. Adaptive preferences are therefore reversible; and data from the evaluation did indeed indicate how the musicians had initially reduced their musical aspirations to accommodate the lack of opportunity and then, when the opportunity to participate in the project was presented, had reversed these learned limitations.

Aspiration is the antithesis of adaptation. However, an expressed preference for what may appear to be a

sub-optimal choice is not necessarily indicative of adaptive preferences. The capability approach is concerned with freedom and someone might have the opportunity to do something that others regard as valuable and yet choose not to do it. A disabled person, for instance, might choose not to make and perform music, preferring instead to simply listen to it. The absence of functioning (here, not making music) could indicate a lack of capability or a freely made choice. The focus on freedom of choice means that the distinction between adaptive preferences and the decisive preferences that are maintained even when other options may be available (Pettit, 2001) must be acknowledged. It cannot and should not be assumed that everyone will want the same outcome: people have diverse wants and preferences and the 'multiple realisability' of the capability approach (Nussbaum, 2000) must be respected. In this context, some people simply do not want to make and perform music – and that may have nothing to do with their disabilities. Lifelong learning provision would therefore be evaluated on the opportunities made available, not on whether those opportunities were taken up.

HOW MIGHT THE CAPABILITY APPROACH FURTHER EVALUATIONS OF WELL-BEING?

We have argued elsewhere that both social and biological models of disability draw attention to the individual's disability and so, with reference to the Drake project, away from the music the musicians valued. The capability approach, however, 'allows greater ontological insights into the musicians' lives and identities' (Watts & Ridley, 2007, p. 160). Terzi shows how the terms impairment and disability might be reconceptualized, suggesting that:

> rethinking impairment and disability in terms of capabilities implies considering what are the full sets of capabilities one person can choose from and evaluating the impact of impairment on these sets of freedoms. It implies, moreover, considering the interaction between the individual and the environmental characteristics in assessing what circumstantial elements may lead impairment to become disability, and how this impacts on capabilities. (2005b, p. 453–454)

Trani, Bakhshi, Noor and Mashkoor draw attention to the growing importance of disability as a global human rights issue and of the links between disability and broader development issues such as systemic discrimination and the marginalization of vulnerable groups (2009, p. 298). Their research indicates the value of the capability approach in providing a different perspective on disability provision, allowing different strategies to be developed in Afghanistan where 'the need for a shift in the conception and implementation of the development process seems critical' (Trani et al., 2009, p. 315). In particular, they cite improvements in co-ordinating stakeholders and gaining information to affect decision-making processes and policy outcomes, as well as increasing the relevance of provision. Biggeri, Bellanca, Bonfanti and Tanzj (2011) also stress the importance of the decision-making process, showing how the life project, peer-counselling and the self-help group can support and enhance the development of capabilities.

Others have drawn attention to the ways in which different models might be combined and related. Burchardt believes that the social model and the capability approach can be mutually informative since the two share features. Furthermore, that the former might be seen as an application of the latter (Burchardt, 2004). She first points to the resistance within the disability movement to rejecting 'pressure towards normalization and the rhetoric associated with rehabilitation' (Burchardt, 2004, p. 742). Terzi similarly argues that the capability approach can provide 'a specific conception of disability as one aspect of human

heterogeneity, without suggesting monolithic and direct notions of diversity as abnormality' (2005b, p. 451) and that this appears to be fundamental in overcoming the discrimination and oppression denounced by disabled people's movements as inherent to current categories of normality, abnormality and diversity. This perspective is summed up in Nussbaum's assertion that the capability approach 'uses a flexible and variegated conception of freedom that is capable of appreciating the capacity for freedom in citizens with mental impairments, rejecting political conceptions of the person grounded in an idealised rationality' (2006, p. 216).

Secondly, Burchardt notes that both the capability approach and social models of disability reject income as a poor proxy for evaluations of well-being whilst noting that 'it is difficult for respondents to evaluate the counterfactual ("what would you spend if you were not disabled?")' (Zaida & Burchardt, 2003) – although we would argue that this question blurs the distinction between the counterfactual and the counteridentical. Terzi (2007, 2008) and Florian et al. (2008) agree that the capability approach opens up a wider evaluative space and can provide justification for the distribution of goods as a matter of justice. Finally, Burchardt (2004) indicates that both frameworks point to the importance of participating fully in society, something that is often prevented by discrimination and enshrined in social arrangements.

However, Reindal (2009) suggests that a 'refined' version of the social model, the social-relational, would be a better combination, since 'the capability approach and the social-relational model attribute capability poverty of impaired people to social inequalities, an understanding of disability as discrimination and oppression is possible within the capability approach but difficult within the framework of the ICF' (2009, p. 167). Saleeby takes the opposite view, arguing that combining the ICF framework with the capability approach will help in the operationalization of the latter 'specifically in developing appropriate mechanisms to reduce or alleviate disability' and that the two together 'will contribute to the improved understanding of the life situations of individuals who experience disability as well as the improved ability of social workers to deal with such issues in their clinical practices' (2007, p. 230). Morris (2009) concurs with the usefulness of combining the two approaches but Reindal (2009) disagrees on the grounds that ICF does not consider agency and empowerment, making it difficult to combine the two conceptual frameworks.

More problematically, Terzi argues that the capability approach solves the theoretical and political problems of the 'dilemma of difference' (that is, that the protection of rights marks out those who need such protection, thereby risking their stigmatization). She does so by showing that a capability perspective sees disability and special needs as 'dimensions of human heterogeneity' and argues that they should not therefore be perceived as 'inferior natural endowments or an exclusionary understanding of individual flourishing which undervalues disabled people' (2008, p. 123). Her argument is theoretically robust: she places disability and special needs on a continuum of human diversity and asserts that the distribution of resources is a matter of equity. This resonates with Nussbaum's philosophical exploration of disability which similarly celebrates diversity and rejects the 'paradigmatic citizen as an independent adult' which 'may encourage the stigmatising of those who are in asymmetrical ways disabled or dependent, whether for a part or the whole of life' (2004, p. 340). Nussbaum calls for an appropriate distribution of resources, emphasizing the need to make sure that children with disabilities 'are equally placed in the education process, and equally supported – which, in their case, requires a lot of affirmative measures and extra expense' (2009, p. 343). So, even though it is theoretically justified, the need for extra resources and affirmative measures (whether the recipients are seen to be part of a continuum or not) continues to highlight the dilemma of difference in practice.

This does not undermine the value of Terzi's analysis but rather draws attention to potential reactions of shame and disgust which 'are associated with forms of social behaviour in which a dominant group subordinates and stigmatises other groups' (Nussbaum, 2004, p. 336). Such reactions might accompany attempts to achieve appropriate provision in practice. 'No group in society has been so painfully stigmatised as people with physical and mental disabilities' asserts Nussbaum (2004, p. 305), and society, in the words of one of the Drake musicians, 'makes us more disabled than we are.'

CONCLUSION

The capability approach is concerned with measurements of freedom that focus on the opportunities different people have to lead lives they value and have reason to value. It acknowledges that the inevitability of human diversity, which includes disability, requires different levels of input to achieve the same outcomes. It therefore disregards input as a suitable metric for assessing human well-being except inasmuch as it recognizes that some people will need more resources than others in order to achieve similar functionings. The lack of appropriate resources is likely to limit the individual's freedom to flourish either by reducing her opportunities to lead the life she acknowledges as valuable or by causing her to adapt her preferences through resignation to her circumstances. Such factors, which may be exacerbated by socially constructed constraints and stigma, are particularly important when assessing the capabilities of those with disabilities and SEN. However, whilst some functionings (such as education) are considered vital elements of the truly human life, others are of less significance. Lifelong learning policy has repeatedly championed increased education and skills improvement to ensure economic gains with wider well-being systematically side-lined to so much rhetoric. But the 2009 IFLL report brought well-being more firmly into focus and made reference to Sen and Nussbaum's work. Music-making was something the Drake musicians valued highly – and so limited opportunities to make music reduced their well-being – but it does not follow that everyone should place the same value on it. Capability assessments must therefore be sensitive to the nuances of human diversity. It is this foundational concept of respect for human diversity, though, that makes the capability approach a valuable means of addressing and assessing the well-being of those with disabilities and SEN.

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The SAGE Handbook of

Special Education

Volume 2

Second edition

Edited by

Lani Florian

⑤SAGE

Los Angeles | London | New Delhi
Singapore | Washington DC

Teaching and Learning

Pedagogical approaches and curricular considerations

26

Learning Without Limits: Constructing a Pedagogy Free From Determinist Beliefs about Ability^{*}

Susan Hart and Mary Jane Drummond

Literature and research spanning many decades have drawn attention to the damaging effects of ability-labelling on young people's learning and life chances. Yet determinist beliefs about ability continue to have currency in schools. Indeed, the idea that children are born with a given amount of intellectual power, which sets limits to possible future achievements, has gained renewed strength and legitimacy in recent years. Government-sponsored initiatives in many countries to raise standards and improve practice in schools have placed particular emphasis upon the need to differentiate by 'ability'. In England, for example, school inspectors are trained to check that teaching is differentiated for 'more able', 'average' and 'less able' pupils. Teachers are expected to make explicit in their schemes of work how this differentiation is to be achieved. Government policy specifically recommends 'ability' grouping as the basis for effective teaching in secondary schools, while curriculum guidance materials for primary schools frequently endorse ability-based pedagogy. Target-setting, with the constant requirement to predict future levels of achievement, is predicated on the belief that current differences between young people, in terms of their test results, will persist in future tests and examinations. This belief, in turn, presupposes that current patterns of achievement reflect stable, underlying differences in academic potential.

Young people who are currently described as having special educational needs are particularly vulnerable to determinist beliefs about ability. The idea that what sets the limits to current and future learning is something unalterable within the child can seem all the more plausible when ceilings are thought to be associated with identifiable impairments or deficits. Educators working with such young people have for many years attempted to challenge determinist assumptions by proposing a more complex, interactive understanding of learning difficulties (e.g., Ainscow & Tweddle, 1988; Booth, Potts, & Swann, 1987; Booth, Swann, Masterton, & Potts, 1992; Dyson, 1990; Florian & Kershner, 2009; Norwich, 1990). Disabled activists have presented a social model of disability, arguing that people are disabled not by any impairments they may have, but by the failure of society to recognize and accommodate their needs (e.g., Barton & Oliver, 1992; Rieser & Mason, 1992). Both groups argue that there needs to be a shift in responses to learning difficulties to include changes in the educational environment and conditions in which learning takes place to enable young people to learn more successfully. Nonetheless, provision in schools and colleges is still largely predicated on the individual-deficit view. As with ability labels, the deficits implied by special needs categories are treated as substantive, unalterable attributes of the person, with clear implications for both present needs and future potential.

The theoretical focus of this chapter reflects our conviction that one reason why these ways of thinking are so resistant to change is that they are sustained by – and sustain – the determinist beliefs about ability and

potential that permeate the education system generally. Changing the ways in which difficulties are perceived and responded to will depend, we contend, upon liberating *all* students from thinking and practice shaped by determinist beliefs about ability and potential. Change in this fundamental, yet frequently taken-for-granted, aspect of general educational practice is a pre-condition for the development of a more inclusive education system.

Such a radical change clearly depends, however, on the availability of credible, articulated alternatives to ability-based teaching. In this chapter, we outline one such model, derived from research carried out by a team based at the Faculty of Education, University of Cambridge. We identify the key features that distinguish it from ability-based practices and explore the relevance of these to the construction of inclusive pedagogy. It is obviously impossible, in the space of one chapter, to provide detailed evidence for, and exemplification of, the model presented here. A comprehensive account can be found in our book *Learning without limits* (Hart, Dixon, Drummond, & McIntyre, 2004) and a description of its creative application to whole-school development is given in *Creating learning without limits* (Swann, Peacock, Hart, & Drummond, 2012).

THEORIZING ALTERNATIVES TO ABILITY-BASED TEACHING

The title of the original book and the name of the project were inspired by a powerful passage in Stephen Jay Gould's *The mismeasure of man* (1981) that seems to capture our central concerns:

> We pass through this world but once. Few tragedies can be more extensive than the stunting of life, few injustices deeper than the denial of an opportunity to strive or even to hope by a limit imposed from without but falsely identified as lying within. (Gould, 1981, p. 29)

We saw it as a matter of profound concern that the idea of fixed-ability was being perpetuated in schools, indeed positively endorsed by officially sanctioned models of good practice. Drawing on our understanding of a substantial tradition of research spanning more than 50 years, summarized in Table 26.1, we argued that differential, fixed-ability is not just a deeply flawed and unjust way of explaining differences in learning and achievement; it also exerts an active, powerful force within school and classroom processes, helping to create the very disparities of achievement that it purports to explain.

It does this in subtle and unintended ways through the effects it has on teachers' thinking and practices, through the social and psychological impact it has on young people's self-perceptions, aspirations, attitudes and responses to school learning and through its narrowing effects on the curriculum and the methods of assessment used to recognize and evaluate achievement. We realized, however, that in challenging the idea of fixed-ability underlying the government's reform agenda, we would need to do more than simply re-open well-rehearsed debates about the impact of ability-labelling on young people's education and life chances. Ability-based pedagogy would have to be replaced by a coherent, principled and practicable alternative.

We were convinced that the most powerful and persuasive alternative models would be those already developed by teachers themselves. We were confident that there were many teachers who had come to their own conclusions about the damage done by ability-labelling, and who had already developed successful classroom practices consistent with their values and understandings. The nine teachers who joined the team worked in different contexts and phases of education and had expertise in different subject areas. Over the course of a year, we spent many hours in these teachers' classrooms, observing and interviewing both teachers

and pupils. The whole team also met to share our thinking and develop the research collaboratively. Working with the teachers, we built up individual accounts of the key constructs at the heart of each teacher's thinking, and an understanding of how these constructs worked together to create a distinctive pedagogy. Comparing the nine accounts, we found many elements of thinking and practice that the teachers had in common. Furthermore, beneath these common elements, we identified a core idea, which acted as the inspiration and driving force at the heart of these teachers' work.

THE CORE IDEA OF TRANSFORMABILITY

At the most fundamental level, it seemed that fixed-ability thinking had been replaced, in these teachers' pedagogy, by an alternative mind-set: a radically different orientation towards the future, leading to an entirely different approach to the task of teaching a class of learners. Ability labels, and ability-based practices, assume a stable, predictable relation between present and future; those young people designated 'more able', 'average' and 'less able' will remain so in the future – the teacher's task is to assess ability accurately and, by matching teaching to ability, enable each individual to realize his or her given potential. In contrast, the nine teachers in our team based their work on a fundamentally different conception of the relation between present and the future. This conception, *transformability*, entails a firm and unswerving conviction that there is always potential for change in current patterns of achievement and response, that things can always change and be changed for the better, sometimes dramatically, as a result of what happens in the present, in the daily interactions of teachers and students.

Table 26.1   How fixed-ability thinking limits learning

Effects on teachers

- Ability-labelling affects teachers' attitudes and behaviour towards children and limits their expectations for some children's learning. Teachers vary their teaching and respond differently towards children viewed as 'bright', 'average' or 'less able' (e.g., Bibby, 2011; Croll & Moses, 1985; DfE, 2011; Good & Brophy, 1991; Hacker, Rowe & Evans, 1991; Jackson, 1964; Keddie, 1971; Rinaldi, 2006; Rosenthal & Jacobson, 1968; Suknandan & Lee, 1998).
- Fixed-ability thinking reduces teachers' sense of their own power to promote learning and development through the use of their expertise and professional judgement. It therefore discourages creativity and inventiveness to overcome difficulties (e.g., Bloom, 1976; Dixon, 1989; Drummond, 2012; Hart, 1996, 2000; Kelly, 1955; Simon, 1953).
- Fixed-ability thinking encourages teachers to see differential performance as natural and inevitable, and so diverts attention from the part that school and classroom processes play in enabling or limiting learning for individuals and groups (e.g., Bernstein, 1971; Boaler, 2009; Bourdieu, 1976; Chitty, 2007; Coard, 1971; Jackson, 1964; Rist, 1970; Tizard & Hughes, 1984).
- Ability-labelling and grouping encourage schools and teachers to privilege psychometric knowledge over other, more complex ways of coming to know young people, appreciating differences and responding to individuality (e.g., Hart et al., 2004; Hull, 1985; Kelly, 1955; Yarker, 2011a).

Effects on young people

- Young people learn how they are perceived by teachers and respond to that perception; they tend to live up to or down to expectations (e.g., Good & Brophy, 1991; Nash, 1973; Rosenthal & Jacobson, 1968; Tizard, Blatchford, Burke, Farquhar, & Plewis, 1988).
- Ability-labelling undermines many young people's dignity, their self-belief, their hopes and expectations for their own learning. It strips them of their sense of themselves as competent, creative human beings, leading them to adopt self-protective strategies that are inimical to learning (e.g., Ball, 1981; Bibby, 2011; Boaler, 2005; Dweck, 2000; Hargreaves, 1967, 1982; Holt, 1990; Hymer, 2006; Jackson, 1968; Lacey, 1970; Pearl, 1997; Yarker, 2011b).
- Fixed-ability thinking and ability-led practices tend to discriminate against particular groups of young people. Research has repeatedly

drawn attention to social class and ethnicity-based inequalities in the processes of selection, grouping and differentiation of curricula (e.g., Boaler, 2005; Central Advisory Council for Education (CACE), 1967; Douglas, 1964; Ford, 1969; Gillborn & Youdell, 2000; Heath, 1983; Jackson, 1964; Parsons & Hallam, 2011; Taylor, 1993).

Effects on curriculum

- Fixed-ability thinking encourages and legitimates a narrow view of curriculum, learning and achievement (e.g., Alexander, 1984, 2000, 2010; Boaler, 2009; Goldstein & Noss, 1990; Hargreaves, 1980).
- By naturalising explanations of differential achievement, fixed-ability thinking perpetuates the limitations and biases built into existing curricula (e.g., Gardner, 1983; West, 1991).
- Ability-labelling and grouping by ability restrict the range of learning opportunities to which individual pupils are exposed (e.g., Boaler, 1997a, 1997b; Boaler, William, & Brown, 2000; Hacker et al., 1991; Jackson, 1964; Nash, 1973; Oakes, 1982, 1985; Suknandan & Lee, 1998; Watson, 2006).

The accounts of the nine teachers' work provide multiple illustrations of how they conceptualized the potential for change and how they attempted to realize this in their classrooms. Their confidence in the potential for all young people to become better learners was not based on judgements about individual learners but stemmed from a broader analysis of external influences and constraints on learning that had affected prior learning and continued to operate in the present. They knew that these influences impacted upon young people's states of mind – on their ability and willingness to engage with learning opportunities provided for them in school. Their confidence was sustained by a concept of *learning capacity*, fundamentally different in nature from the concept of fixed-ability. The idea of a mysterious inner force, responsible for learning, residing in the individual, and subject to the internal limits of each individual learner, had no place or value in their thinking. They saw learning capacity as a product of the interplay between external forces and internal resources and states of mind. It included social and emotional as well as cognitive–intellectual resources and states of mind, the cognitive elements being skills and understandings that can be, and have been, learned. They understood that learning capacity resides in the collective as well as the individual; it is contained within and constituted by how a group of young people work and operate together as a group, and by the opportunities and resources made available to them as a group.

Some of the external forces recognized by these teachers to have an impact upon learning capacity included prescribed curriculum content, the language of the curriculum, management styles, modes of grouping, expectations of teachers and peers and the nature, range and distribution of learning tasks and opportunities. The teachers also considered the interplay between influences external and internal to the school. They were aware that these various external influences interacted with internal forces and states of mind, such as self-belief and the sense of meaningfulness and relevance of what is being learned, which have a profound impact on capacity and willingness to engage. As well as attending to aspects of cognitive and intellectual functioning, the teachers also considered the learners' social and emotional states: young people's feelings of confidence, competence, their sense of identity and belonging, and their commitment to the values upheld by the school.

The teachers were convinced that they had the power to strengthen and, in time, transform learning capacity by acting systematically to lift limits on learning, to expand and enhance learning opportunities and to create conditions that encourage and empower young people to use the opportunities available to them more fully. By working out practical strategies, for instance, to increase flexibility, to make learning more pertinent to the world outside school or to increase learners' control, the teachers acted simultaneously in

everybody's interests, to strengthen the learning capacity of everybody.

The teachers recognized, however, that if their power was to be effective, it must connect with and harness young people's power in what is necessarily a joint enterprise. As active agents in their own right, young people can – and many currently do – use their power to resist and confound teachers' best efforts to engage them and enhance their capacity for learning. However, the teachers knew that how young people use their power is profoundly affected by every aspect of their school experiences. It is possible to influence young people's states of mind, their ability and willingness to invest in school learning, through the classroom conditions in which learning takes place. Understanding the connections between classroom conditions and the states of mind that affect young people's ability and willingness to invest in school learning gave the teachers confidence in their power to transform young people's learning capacity.

THE TEACHER'S ROLE IN TEACHING FOR TRANSFORMABILITY

In addition to the core ideas of transformability and learning capacity, we also identified a common set of purposes that informed the teachers' practice and three pedagogical principles that guided their classroom choices at a practical level, as they worked to achieve their purposes. These were the practical tools which enabled them to translate their commitment to and belief in transformability into a coherent and practicable pedagogy.

THE CORE PURPOSES OF TEACHING

As the teachers talked about their work and why they chose to do what they did, it became apparent that their purposes for teaching went beyond the acquisition of particular knowledge, skills and understanding. Through the tasks and activities they provided, the contexts they created, the classroom relationships and interactions they fostered, the teachers were trying to lay foundations that would enable all young people in their classes to become more powerful learners. They did this specifically by continually referencing their decision-making to the internal resources and states of mind that they were seeking to restore, build and foster. In contrast to the differentiated objectives associated with ability-based pedagogies, these purposes – in the affective, social and cognitive domains – as summarized in Table 26.2, provided a common framework for the planning, conduct and evaluation of teaching applicable to everybody.

Although these purposes may, at first sight, appear to be ones that most teachers would endorse, they are in fact fundamentally incompatible with ability-labelling. The nine teachers in the team had turned their awareness of the limits on learning imposed by ability-labelling into understanding of what needed to be done – and undone – in order to free learning from those limits. The core purposes could not be achieved in a learning environment still permeated by ability-focussed judgements and practices.

Three practical pedagogical principles

The process of translating these purposes into practice was guided by three practical pedagogical principles. All three words are important. These are *pedagogical* principles, in that they are concerned with the purposes of teaching. They are *practical* principles, in that they are not merely espoused ideals: these are the ideas that

in practice guide the ways teachers realize their purposes. Most importantly, they are *principles*, not just instrumental ideas for achieving the teachers' purposes but also ethical ideas about the right ways in which teachers ought to engage with young people.

Table 26.2   Teachers' purposes in teaching for transformability

To minimize or prevent states of mind which impair young people's learning capacity	To build and strengthen the subjective states which enhance learning capacity
In the affective domain	
• Feeling insecure, or lacking in confidence • Feeling incompetent, frustrated • Feeling negative, disaffected • Negative sense of self as learner: the experience of failure • Feeling powerless to change things for the better through own effort	• Feelings of safety, growing confidence • Feelings of competence and control • Increased enjoyment and sense of purposefulness in learning • Enhanced sense of identity as learner: the experience of success • Increased hope and confidence for the future, capacity to change
In the social domain	
• Sense of being rejected, feeling a second-class member of the community, with less to contribute than others • Alienation, rejection of school values, oppositional behaviour	• Increased sense of acceptance and belonging, as important and unique members of a group • Enhanced social and collaborative skills, and sense of participation in a community of learners
In the cognitive domain	
• Difficulty in accessing or engaging with activities/subject matter of curriculum • Sense of meaninglessness or irrelevance of what is to be learnt • Expectation of failure, using coping strategies to avoid risk, unwillingness to persevere with difficult tasks	• Successful access to worthwhile learning by all young people • Increased sense of relevance, capacity to see connections and find personal meaning in tasks and activities • Enhancing young people's powers of thinking, reasoning, explaining

These principles do not function in isolation from one another. Their power to contribute to the fundamental task of progressively enhancing young people's learning capacity depends upon the use of each of them in combination with the others.

1. The principle of everybody

The principle of 'everybody' articulates teachers' fundamental responsibility and commitment to acting in the interests of everybody. It works to ensure that teachers' efforts to strengthen and transform learning capacity are applied equally and fairly to everybody. It was noticeable that the nine teachers often used the term 'everybody' when talking about their teaching. This continual reference to 'everybody' expressed their determination that no-one was to be left out, that the core purposes of teaching applied to *everybody* in the class, not just *some people*. Everybody can become a better learner if the subjective conditions reflected in these purposes can be achieved; and the teachers were convinced that the purposes *could* be achieved for everybody,

if conditions were right. So, the teachers approached their work in a developmental way, searching for ways of enhancing subjective experiences through their own classroom choices. Since they understood that learning capacity resides in the collective as well as in the individual, they chose strategies to enhance learning capacity that, wherever possible, constructed learning as a collective experience. The strategies were carefully selected to be accessible to everybody and to enable the core purposes to be achieved, as far as possible, by everybody.

The principle of 'everybody' is not just about equality of value as expressed in the teacher's mind and actions. It is also about the value that young people place on their own and one another's contributions. Ability labels and ability-based grouping can prevent the development of community by reinforcing the idea that some people have very little to contribute to their own learning or to the learning of others. The nine teachers explicitly encouraged their students to work together and value what they could contribute to one another's learning. They also invested considerable effort in developing unity and solidarity in their classrooms. They recognized that there is immense potential, within the community of minds that constitutes the group, for enhancing and transforming learning capacity, if the resources of the group could be effectively harnessed and enabled to operate more purposefully and productively in support of everybody's learning. In this respect, their view of the power of the collective to enhance learning capacity has links with Perkins's (1995) notion of 'distributed intelligence'. According to Perkins, the resources which support intelligent behaviour are not simply located in individual minds (the 'person-solo') but are distributed throughout the environment and social system in which we operate. They include physical resources (e.g., computers), social resources (e.g., human collaboration and team work) and symbolic resources (e.g., symbolic systems, thinking-oriented terms). Perkins writes, 'Intelligent behaviour is not characteristically the dance of the naked brain but an act that occurs in a somewhat supportive physical, social and cultural context. Because of that context, the behaviour proceeds with more intelligence' (1995, p. 323).

The idea of working as an integrated community, with common goals, collaborative ways of working, an acceptance of mutual obligations and an appreciation of the benefits of learning from one another, is very different from the individualistic thinking associated with ability-labelling. It is also very different from an approach to teaching in which the teacher takes all the responsibility. In seeking to make their classes into learning communities, the nine teachers integrated the principle of everybody with a second key principle, *co-agency*.

2. The principle of co-agency

This second pedagogical principle follows from the awareness that the task of transforming learning capacity must necessarily be a joint enterprise between teachers and students. All the teachers' practices were directed towards enlisting their students, both individually and collectively, as active, committed partners (*co-agents*) in the educational process. This led them to adopt a particular approach to allowing for diversity in learning. A major consideration in the teachers' efforts to enhance learning capacity was their awareness that the emphasis on perceived differences in so-called ability, and the consequent neglect of other real differences of many kinds constituted a serious constraint on learning for many young people. The teachers recognized that one important way in which they could make a difference to future development was by organizing their teaching in a way that *did* make conscious use of their knowledge about individuals that would be significant for learning, but *did not* perpetuate or re-create the limiting and divisive effects associated with ability-labelling.

Their preferred strategy was to plan common learning opportunities for the whole class, ensure that tasks and activities are accessible to all, and then offer an open invitation to everybody.

This approach reflected their understanding that allowing for diversity was not simply a task for the teacher. According to the principle of co-agency, diversity in learning is achieved by what both teachers *and* learners do and contribute to the learning process. The technical task of matching tasks and learners, in ability-based pedagogy, is replaced by a deeper, more complex process of *connection*, a meeting of mind, purposes and actions between teachers and young people. Tasks and outcomes are deliberately left open, or constructed in such a way as to offer alternative activities or choices of various kinds, so that young people have space to make their own connections, to make ideas meaningful in their own terms and to represent and express their thoughts, ideas and feelings in their own ways. When connection is successfully achieved, it inevitably results in different experiences and outcomes, since everybody is unique, everybody brings and contributes something different, making his or her own meanings through active engagement with the learning opportunities provided.

The principle of co-agency also implies active work on the part of teachers to encourage young people to share responsibility in many ways, and in relation to many different aspects of classroom life. For example, one teacher encouraged her students to organize the classroom and make rules about what is acceptable. Another helped her students reach a better understanding of the criteria by which their work would be judged, so that they could take more responsibility themselves for evaluating and improving their work. A maths teacher sought to empower young people to ask questions more frequently and more freely. This sharing of responsibility – which, at its fullest, implies joint control by teacher and learners – is very important practically because it helps to make classroom teaching more manageable. It is important pedagogically because the active engagement of learners is needed for any sort of learning to happen. And it is important ethically, as noted earlier, because teachers cannot fulfil their professional responsibilities and exercise the full extent of their power unless they are able to recruit young people to work with them in what is necessarily a joint enterprise.

3. The principle of trust

The teachers also approached their task from a basic position of trust. They had an unshakeable conviction that young people are to be trusted – trusted to make meaning of what they encounter in school and out of it, trusted to find relevance and purpose in relevant and purposeful activities, trusted to contribute to one another's learning, trusted to take up the teacher's invitations to co-agency and to participate in the worthwhile activity of learning.

This basic position of trust meant that, when learners chose not to engage or appear to be inhibited in their learning, the teachers re-evaluated their choices and practices in order to try to understand what might be limiting their participation and learning. Trust sustained the teachers' belief that young people would choose to engage if the conditions were right, and so supported their efforts to keep searching for ways to reach out and make connections that would free young people to learn more successfully. They adopted particular patterns of pedagogical thinking: continually trying to connect with their students' consciousness as people, in order to understand their responses to learning activities and experiences from their point of view. They engaged in continuous hypothesizing about the states of mind lying behind young people's choices and actions, the classroom conditions that might be influencing these, and how classroom conditions might be

changed to become more enabling. Aware that they were working from hypotheses and not certainties, the teachers continuously reviewed and revised their hypotheses in the light of experience. They also engaged in dialogue with young people in order to check out interpretations of behaviour. Examples of this kind of thinking permeated the accounts of the nine teachers' work, suggesting that they made use of it in all areas of classroom practice – in their design and selection of tasks and topics, in their classroom interactions, in their assessment and feedback, and in the evaluation and development of their teaching.

The teachers trod a fine line between, on the one hand, communicating acceptance and appreciation of young people as they currently were and, on the other, creating the conditions that would enable them to change, to find themselves able to transcend existing limits. Indeed, they were convinced that communication of interest, and willingness to listen and try to understand how the world looks through the eyes of young people, could go a long way towards making such change possible.

MAKING TRANSFORMING CHOICES

We have now seen how the core idea of transformability translates into a principled and practicable pedagogy (see Figure 26.1). In place of a stable view of the relation between present and future, the core idea of transformability assumes that the present plays a pivotal role in determining the path of future development. The future is in the making in the present. Absolutely everything that happens in the present will have a formative effect, for better or worse, upon future development. Either the effect will be broadly to maintain the learner's capacity as it currently manifests itself, because the balance of influences remains unchanged, or the effect will be to strengthen and progressively transform learning capacity. The nine teachers exercised their power to increase learning capacity by considering the choices available to them and systematically choosing the transforming options, based on their understanding of what limits young people's capacity to learn and what would lift those limits, freeing them to become more powerful learners.
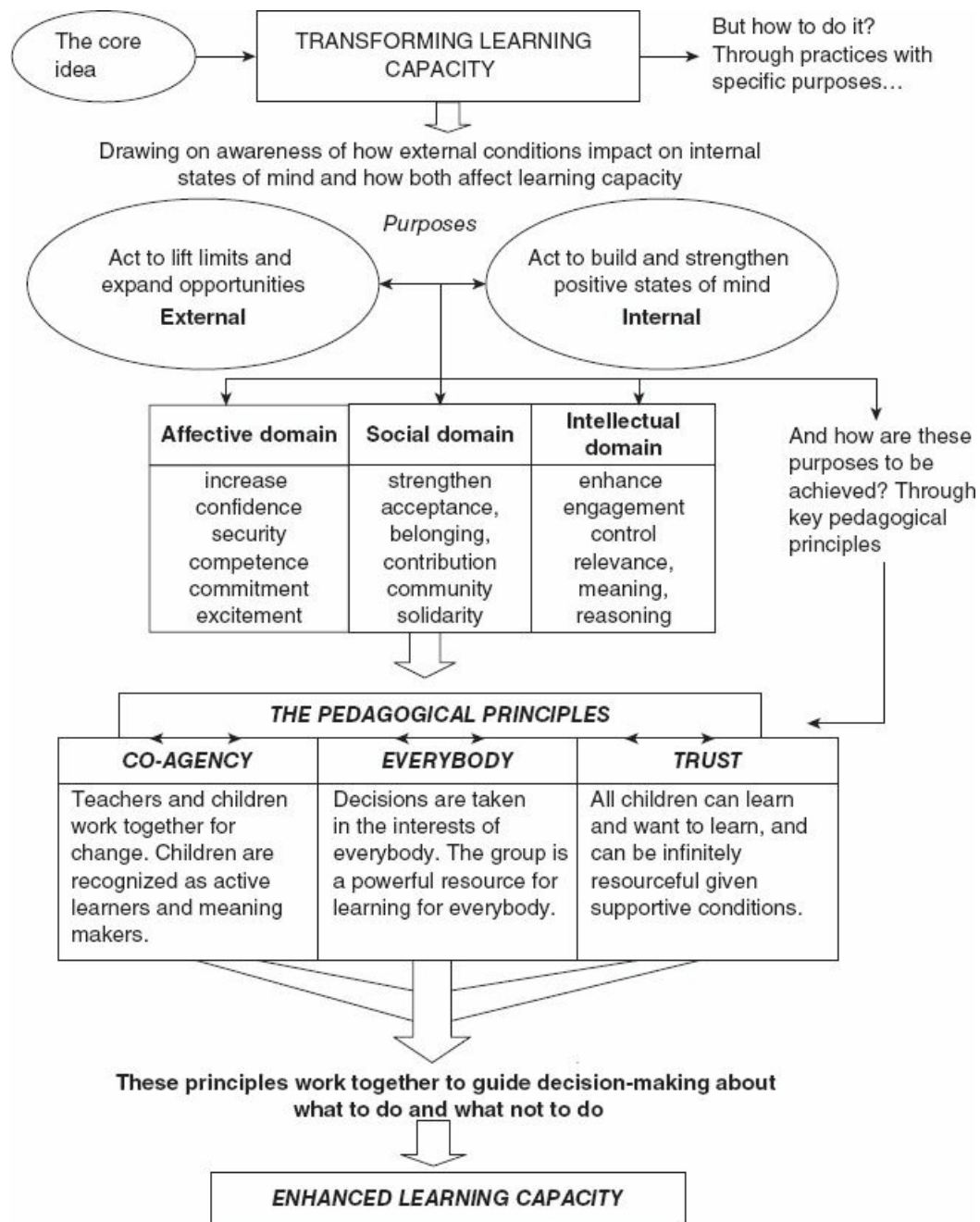
Figure 26.1 The practical, principled pedagogical model (adapted from Hart, Dixon, Drummond, & McIntyre, 2004)

This model of pedagogy was developed, as we have shown, in the course of researching the practice of individual teachers in different schools. However, since then we have studied its application to whole-school development in a primary school in Hertfordshire, where Alison Peacock, one of these teachers, took up the post of head teacher in January 2003. A full account of our findings is given in Swann et al. (2012); here we present a brief summary of how the ideas and principles outlined so far were enlisted to guide and inspire the creation of a school-wide learning community.

Alison began her headship convinced that the model of classroom pedagogy could not be fully effective for children unless the same pedagogical principles of trust, co-agency and everybody were also being applied to

support the learning of staff. The power of teaching staff to make transforming choices in their practices with children depended upon the extent to which conditions in the school supported their own learning. Slowly and gradually, Alison found ways of embedding the three principles in a variety of structures and strategies that helped to nurture the whole staff's trust in every child's capacity to learn, and their own capacity to learn from one another; she worked systematically to build her colleagues' sense of their power to transform children's learning capacity through their everyday actions and interactions throughout the school.

Whereas the first study was limited to exploring what individual teachers found themselves able to do in their own classrooms, *Creating learning without limits* shows what additionally becomes possible when an entire staff group works together towards a common vision of creating a whole-school learning environment free from determinist beliefs about ability. The specific practices developed at this school are, of course, just one approach to the *Learning without limits* ideal. All teachers and other educators have to do their own thinking, learning and reflecting, constructing their own understanding of how to enact a more inclusive and empowering pedagogy. But what this second study shows, convincingly, is that the principles of co-agency, everybody and trust are powerful and effective ideas when applied to the process of building a school-wide culture of professional learning. This culture, in which the principles are made manifest in practice, strengthens the disposition of individuals to think for themselves in particular ways, so increasing their power to make transforming choices; it also supports them in the daily affirmation of their shared moral purpose: their work as an integrated community, committed to human educability.

TRANSFORMABILITY: THE HEART OF INCLUSIVE PEDAGOGY?

In the final part of this chapter, we consider the relevance of the model of pedagogy outlined so far for theory and practice in the area of special and inclusive education. We argue that young people described as 'having special educational needs' should not be viewed as a separate group, as if the pedagogical ideas, purposes and principles outlined so far do not apply to them. Indeed, it is precisely because dominant ways of thinking mark out children described as having learning difficulties or disabilities as 'other' that it is important, in this final section, to explain our conviction that the core ideas that provide the basis for our model of pedagogy do apply to all young people without exception. We show that the core idea of transformability and the concept of learning capacity that supports it connect up with an important tradition of work in the field of special and inclusive education. This tradition challenges individual-deficit accounts of 'learning difficulties' and refocusses analysis onto the complex interactive processes that lead to the emergence of difficulties. We argue that the key ideas that form the basis of our alternative model, together with the purposes and principles that enable them to be translated into practice, have an important contribution to make to the development of inclusive education, encompassing insights arising from that body of work in a pedagogical framework designed for all students.

We refer back to the words of Stephen Gould quoted at the start of the chapter. He speaks of the 'stunting of life', and the 'injustices' that stem from 'a limit imposed from without but falsely identified as lying within'. This, the endemic problem of fixed-ability thinking, applies just as much, if not more strongly, to young people categorized as 'having learning difficulties' or disabilities. Their characteristic patterns of attainment and response that, in reality, reflect a complex interplay of influences, both external and internal, are typically

attributed to inherent deficits and/or disabilities. The limits are assumed to come from within. Once the attribution is made, there is no call to look for alternative explanations. By contrast, in our model, learning capacity is not a fixed, internal property, tied to or inferred from particular inherent abilities, difficulties or impairments. It is a situated concept, the product of the interplay between internal and external influences, residing not just in the mind of the individual but also, in part, constituted by the resources of the group. It is therefore susceptible to change – in some cases, even dramatic change – if the conditions are right. The learning capacity of all young people, including those currently described as having 'moderate', 'severe' or 'profound' learning difficulties, can legitimately be understood in this way.

For example, young people designated as having 'moderate learning difficulties' are typically thought to have deficiencies in cognition, memory and language, a short attention span and social skills deficits, as well as having low overall attainment compared to their peers. These attributions take no account, however, of the multiplicity of influences, internal and external, which affect young people's capacity to attend, to think, discriminate, interact with others, recall previous learning and become absorbed in productive and meaningful activities. Adrienne Bennett, a teacher working in a school for 'moderate learning difficulties' describes what happened when she tried out some new approaches to mathematics teaching. Her students revealed qualities, characteristics and skills of which she had not previously thought them to be capable. She writes:

> I have found that the pupils designated as having moderate learning difficulties … can: concentrate for long periods of time; sustain protracted investigations; be systematic; reason logically; find patterns and relationships; make tests and predictions; generalise; record and explain their findings. I have found them working in ways I had never expected them to be able to. What they couldn't do was perform meaningless calculations and relate them to situations that were equally meaningless to them. But then, who can? (Bennett & Williams, 1992, p. 74)

If we accept current patterns of attainment and response as being reliably and unalterably tied to particular underlying deficits or impairments, our acceptance becomes part of the dynamics – the 'limit imposed from without' – that constrain both present and future development. Goldbart (1994) illustrates how deficit thinking both dis-empowers teachers and impacts on the development of young people described as having profound and multiple learning difficulties. She refers to a study of communication in which teachers of such students were interviewed. 80.9% of pupils (800 in total) were considered by their teachers to have no communication skills. This perception of students as 'non-communicators' is a matter of considerable concern, Goldbart argues, because 'it is well established in the language acquisition literature that it is by being treated as communicators that we become communicators' (Gold-bart, 1994, p. 16). The implication is clear. If these students do not go on to become communicators, this may be because they have not been given appropriate opportunities to learn. Limits on their capacity to learn to communicate, while ostensibly attributable to any impairments they may have, may in fact be due to their not having experienced the kinds interactions needed to foster the development of communication skills.

As with ability-labelling, deficit thinking produces a sense of powerlessness and fatalism on the part of teachers: a sense that there is not much that can be done because the limits on learning imposed from within are unalterable. Indeed, as Mittler (2000) reminds us, not much more than 30 years ago it was widely accepted that the learning capacity of 30,000 young people was so profoundly and permanently limited that they were ineducable. These young people spent their time in long-stay hospitals with little or nothing expected of

them. Mittler recalls that if, at the time, anyone had said to him that a day would come when such children would not only attend mainstream schools but succeed in passing the ordinary school-leaving examinations, he would not have believed them. Nor would he have expected to meet adults who describe themselves as 'having learning difficulties' living in ordinary houses, holding down a job, having a family, lobbying members of parliament or addressing the United Nations. Yet, he recognizes, 'all these things, and many more, have happened to some and could have happened to many more if the opportunities had been made available and if there were enough people to turn the vision into a reality' (Mittler, 2000, p. viii).

The assumption that we can infer what the future holds for children, on the basis of present characteristics and attainments, and organize provision for them on that basis, is as erroneous today as it was 30 years ago. What we currently know about the range of attainments and patterns of development of young people with particular impairments reflects the experiences and opportunities to which they have previously been exposed. We cannot know or predict what young people might, in future, become capable of, if significantly enhanced opportunities for learning were made available to them and if externally imposed limits on their learning were to be first recognized, and then progressively lifted. The point is reiterated by Buckley (2000), Director of Research and Training at The Down Syndrome Educational Trust, who has a daughter with Down syndrome. She believes that, although young people with Down syndrome are now deemed educable, the tendency until recently to segregate them from other children means that they have still been subject to impoverished social and educational experiences.

Until the past decade, most children with Down syndrome grew up in social and educational deprivation. They were not welcome at the same clubs, play groups and social activities attended by other children of the same age. They only mixed with children with similar and more severe disabilities in segregated settings. They were denied friendships with other people of similar age who were not disabled. They were not learning and growing within the world of children in their community. Imagine how social isolation and exclusion from school would affect the development of children without a disability and then consider its probable effect on the development of children with Down syndrome (Buckley, 2000, p. 6).

Currently available evidence of patterns of development of young people with Down syndrome inevitably reflects such limiting influences. Buckley writes 'much of the information that we have at present is based on the descriptions of the progress of children with Down syndrome who have not benefited from effective interventions or inclusive schooling' (2000, p. 20). Studies of the progress of children with Down syndrome in inclusive settings 'all indicate that the children benefit and that they achieve higher levels of literacy, numeracy and academic attainments than children in segregated settings'. The evidence also suggests that the children have 'considerably better spoken language and more mature social skills than those educated in special schools' (Buckley, 2000, p. 7). Moreover, there is no evidence to support the myth that young people with Down syndrome reach a ceiling in adolescence and do not go beyond it. Buckley writes, 'The so-called "ceiling" discussed in past literature was almost certainly the result of the lack of medical care and educational and social experience' (2000, p. 4).

From these and other examples in the literature, we can see that the concept of learning capacity in our model of pedagogy reflects many of the same concerns, and redirects attention to many of the same external influences, as proponents of social and interactive theories of 'learning difficulties' and disabilities. For example, Norwich argues for a dynamic approach to assessment in which 'learner characteristics would be

assumed to interact with the context of learning and to be specific to the fields of learning' (1990, p. 107). Ainscow explains how he arrived at the conviction that 'educational difficulties have to be seen as being context bound, arising out of the interaction of individual children with a particular educational programme at a certain moment in time' (1999, p. 30). The implication of this perspective, as we have seen in the works of Mittler and Buckley, is that it is not possible to know how the learning of young people experiencing significant difficulties might develop under more favourable conditions; but since experience has unequivocally shown that their learning has been, and continues to be, subject to many externally imposed limits, including those arising from low expectations, educators can and must commit themselves to doing whatever is possible to bring about those more favourable conditions. This conclusion and the pedagogical commitments that follow from it lead to a mind-set and professional purposes entirely congruent with those that follow from the core idea of transformability. Indeed, we are confident that educators whose thinking is influenced by social or interactive perspectives on educational difficulties will recognize that they too approach their work in a spirit of transformability: refusing to accept the inevitability of certain difficulties and limitations; feeling inspired by a sense that what happens in the present can change the path of future development; using their knowledge, creativity and expertise, in partnership with students, to search for ways to enable learning to be more successful. Jones (2002) illustrates this approach in practice, in a powerful paper relating to the use of Objects of Reference to assist the development of communication in a college for adults with learning difficulties and physical disabilities. Describing progress with one student, Nicola, he expresses his belief that 'simply because someone apparently cannot does not mean that they will not' and 'we do not know if Nicola will make the connection but we know that if we don't try she never will' (Jones, 2002, p. 13).

The model of pedagogy that we have elaborated in this chapter places this spirit of transformability at the heart of teaching and learning for *all* students and their educators. The core idea of transformability is, we maintain, a genuinely inclusive tool because if this is how teaching staff approach their task with all students, there is no reason to single out people 'with learning difficulties' for particular mention. The dispositions of the learning community to think in particular ways (as elaborated in our second study) come into play with respect to all young people. Educators notice where there are gaps between their purposes (as shown in Table 26.2) and what is actually happening; they analyse the connections between internal resources and states of mind and external classroom conditions; and they work out how they can intervene in order to shift the balance of forces so that they can come closer to achieving the core purposes for each individual, and for the group as a whole. When they look to the future, then, they do not expect to see stability: the fulfilment of the expectations and predictions arising from current tests and patterns of attainment. Rather, the measure of their success is clear evidence of positive changes: evidence that the subjective, internal conditions they believe to be needed for purposeful and productive learning are being achieved, individually and collectively, by more of their students, more of the time.

The concept of learning capacity at the heart of this process is also an inclusive tool. While it has much in common with social and interactive theories of learning difficulties, it has the advantage that it does not depend on a pre-existing distinction between those 'with difficulties' and other students. It avoids the hierarchies and distinctions inherent in categories of ability and disability, and offers teachers the means to recognize and refer to everybody's learning capacity in positive terms. Perhaps most importantly, this situated concept of learning capacity helps to sustain the critical mental shift away from determinist and deficit

thinking. It keeps alive and, most importantly, active in educators' thinking and decision-making the awareness that the learning characteristics, dispositions and difficulties displayed by their students at a given point in time are not a reflection of permanent and unalterable attributes of those individuals; it insists that there is always the potential for positive change through their actions and interventions to increase and enhance learning capacity.

The core idea of transformability, and the concept of learning capacity at its heart, are also congruent with other important work on inclusive education, where inclusion is understood as involving a complex and continuing processes of development in the cultures, policies and practices of schools. In *Index for inclusion*, educational inclusion is described as a 'never-ending process which involves the discovery and removal of limits to participation and learning' (Booth & Ainscow, 2011, p. 40). The *Index* provides a comprehensive analysis of possible barriers to learning, and steps that can be taken to extend and enhance school and classroom conditions, in the form of questions that teachers can use to guide development work at whole-school or individual classroom level. The distinctive contribution that our model can make to this framework is to describe in detail the practical processes whereby the use of this powerful resource can be rooted in pedagogy – ensuring that the analysis and questioning of existing classroom conditions needed to drive the processes of inclusion are embedded in everyday classroom decision-making.

Emphasizing the importance of *how educators think* as well as *what they do* in working to develop inclusive education is especially crucial in the current context. Policy initiatives designed to raise standards and improve practice in schools have had the effect of giving new strength and legitimacy to the idea of ability 'as a fixed, generalized and measurable potential' (Gillborn & Youdell, 2000). Fixedability and deficit thinking go hand in hand – both call for constant and concerted vigilance if their damaging effects are to be progressively eliminated from educational practice. As discussed in more detail in the first chapter of *Learning without limits*, the experience of comprehensive reform has shown that the attempt to remove barriers imposed by selective education was profoundly undermined by the re-emergence of fixed-ability-focussed thinking and practices within comprehensive schools. Care needs to be taken that continuing efforts to promote inclusive education are not similarly undermined by unexamined notions of ability and disability that perpetuate deficit thinking. Mittler suggests that what is needed is a 'change of mind-set and values for schools and for society as a whole' (2000, p. 12). It is here, we claim, that the model of pedagogy proposed in this chapter has its most crucial part to play. It offers an empirically grounded analysis of the kind of mind-set needed to break – and sustain the break – with determinism; *and* it shows how this alternative orientation to the future translates into everyday acts of classroom teaching. It can also, as the second study showed, create the conditions for the growth of a culture of learning across a whole-school community. It restores to educators and students their sense of power and purpose – their right, in Gould's words, 'to strive and to hope' – that through their work together they can transform the course of future development.

NOTES

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27

Nothing Special: The Everyday Pedagogy of Teaching

Jonathan Rix and Kieron Sheehy

This chapter examines the question of whether there are special pedagogies which involve special practices and produce special outcomes. Certainly, there are a plethora of teaching approaches found within special education settings, which may also be associated with specific groups of children, and that can have a long tradition arising from the ways in which educational systems have responded to the diversity of children in society.[1] Meijer (2003), for example, suggested that roughly 2.1% of European students were in segregated provision even though countries were developing a continuum of services, with special schools increasingly seen as resources for mainstream.

In general, outcome reviews do not find advantages for specialist settings (Presidents Commission on Excellence in Special Education, 2002). However, this does not necessarily indicate strong evidence for inclusive settings either. As Lindsay points out, the results from 1,300 studies published between 2000 and 2005 suggest a marginally positive effect overall (Lindsay, 2007). There have been many studies that have tried to demonstrate the impact of inclusive provision. Inevitably these have had to use segregated provision as the comparison. Most studies and reviews find that mainstream does not disadvantage students (Canadian Council on Learning, 2009; Farrell, Dyson, Polat, Hutcheson, & Gallannaugh, 2007; Meijer, 2001) whilst some find positive correlations between mainstream placement and a variety of outcome measures (Curcic, 2009). There are also mixed results for specific groups of pupils in specific curriculum areas. For example, significant gains in language and numeracy skills for children labelled as having Down syndrome (Appleton, Buckley, & MacDonald, 2002; Buckley, Bird, Sacks, & Archer, 2006; Laws, Byrne, & Buckley, 2000) and in maths for children with a broad range of SEN characteristics (Vanlaar & Van Damme, 2012) can be juxtaposed with a review of 30 years' of studies into the education of children facing speech and language difficulties, which concluded that in-class support was no more effective than 'pull out' models (Cirrin et al., 2010).

Given the focus of this chapter, however, a key factor identified across these studies are the wide variations between individual settings and approaches to teaching and learning. Regardless of whether there is a shift in the site of provision, and regardless of the range of issues which the notions of special and mainstream bring with them, the fundamental question remains about whether effective pedagogy reflects underpinning practices common to *any* learning context. It is this question which will be our focus here.

OUR SEARCH FOR SOMETHING SPECIAL

In 2013, the authors were part of a team conducting a study for the Irish National Council for Special Education (NCSE) into provision for children with SEN. During this period, the researchers examined documents from 50 countries across all continents, conducted detailed surveys in 11 countries in four

continents and made visits to four countries in Europe and Asia; however, across all this data the lack of evidence or naming of any 'special' pedagogies was very evident. For example, the following approaches to teaching and learning were identified in relation to special education in the review of international reports from 55 administrations:[2]

- modifying environment
- differentiated pedagogy
- activities to promote individual learning
- diversified materials and resources
- use of Braille
- use of signed communication
- use of symbols
- use of interpreters
- activities with peers
- increased use of computers/ICT
- team teaching
- visual, technical, demonstrational means, computer software, toys, objects and materials and exercise books. (Rix, Sheehy, Fletcher-Campbell, Crisp & Harper, 2013)

During extensive in-country interviews with practitioners working in support contexts, there were frequent comments about special approaches to learning and teaching; however, when these approaches were explored more deeply, the only unifying characteristics were that special education requires time or space that is additional or alternative relative to that available for the majority of learners. The only practices which seemed to be consistently considered as additional to everyday mainstream practice were associated with particular communication forms.

These unifying characteristics from across the data have considerable resonance with the work of Norwich and Lewis (2001) who reviewed the literature concerning distinctive pedagogies for special education. They found a lack of evidence to support specific pedagogies for special education, and suggested acceptance that common teaching principles and strategies are relevant to subgroups of learners with an emphasis upon more intensive and explicit teaching, or that we 'hold onto the hunch that such special pedagogies do exist and that the research is failing to identify them but will do so in time' (p. 325). The common factors they identified across pedagogies associated with supporting those having difficulty with learning were:

- more practice to achieve mastery
- more examples to learn concepts
- more experience of transfer
- more explicit teaching of learning strategies and reinforcement of them
- more frequent and more specific assessment of learning
- more time to solve problems, and so on
- more careful checking for preparedness for next stage of learning. (Lewis & Norwich, 2001)

A LACK OF ROBUST EVIDENCE FOR IMPAIRMENT-SPECIFIC PEDAGOGY

There are some approaches which are particularly effective for children with learning difficulties but are based upon a belief that all children learn in the same way; for example, the Handle Technique (Sheehy, 2009). However, other approaches designed for specific 'types' of impairment or need frequently draw upon an

underpinning theory of learning less prevalent within the mainstream. That such programmes are underpinned by theory does not guarantee long-term meaningful benefits for young people. Frequently, evidence is lacking as to the effectiveness of these approaches.

Consider an impairment-specific group which in some countries is identified as one of the hardest for teachers to include (Meijer, 2001); children placed upon the autistic spectrum. Programmes targeted at this group frequently build upon on behavioural models, which do not typically seek to explain learning through social concepts such as attitude and cognition. One such programme was Lovaas' Applied Behavioural Analysis (ABA), which initiated a 40 hours a week-programme with young children from 2 to 4 years of age, with parents trained to carry out the therapy themselves at home (Lovaas, 1996; Lovaas, Koegel, Simmons, & Long, 1973). This appeared to produce successful changes in cognitive, linguistic, motor, social and life skills, though there was some evidence that the children's problem behaviour did not reduce (Remington et al., 2007). Strongly influenced by Lovaas, ABA has taken on a variety of forms and has influenced the development of precision-teaching approaches where there are identified target behaviours and the teacher focuses on improving the pupil's performance of a particular skill or task. Also emphasizing structure and intensity, The TEACCH programme (Treatment and Education of Autistic and related Communication handicapped Children) positions people on the autistic spectrum as predominantly visual learners, aiming to adapt physical and visual routines, structuring schedules, systems and everyday organization to deal with difficulties associated with the communication and organization of ideas and sensory and social experiences. This too is reported as leading to significant gains in adaptive behaviour, general cognitive and life skills (Panerai, Ferrante, & Caputo, 1997; Probst & Leppert, 2008). It is also reported that the programme can be delivered in both special and inclusive settings (Panerai et al., 2009).

A significant issue when considering both the effectiveness of these programmes, and their underpinning theories of learning, however, is the research that supports them. A systematic literature review of the evidence around effective best practice provision for children placed on the autistic spectrum (Parsons et al., 2009) noted that independent evaluation of all interventions is notably lacking. Parsons and colleagues highlighted that well-known interventions (such as Lovaas, ABA and PECS [Picture Exchange Communication System]) might not be as effective as earlier findings suggested, when more robust research methodologies have been applied. They suggested that there is a need for extended research programmes involving larger numbers of participants over longer periods of time. Previous evaluations tended to be conducted by researchers involved directly with implementing programmes or centres providing services. They noted, too, a frequent lack of objectivity and rigour in classroom-based studies and a lack of research in post-primary and post-compulsory educational contexts. Given the structured approach of these models, it is perhaps unsurprising that the reviewers also recognized a heavy reliance upon quantitative research and a lack of qualitative insights into such things as contextual factors that may influence outcomes and the relevance and usefulness of skills learned during interventions.

The limited, reliable evidence base is not restricted to this impairment group either. In a review of research into Learning Disability examining the capacity of 15 meta-analyses to provide robust evidence for teachers, Therrien, Zaman and Banda (2011) concluded that the lack of reporting about student characteristics in primary studies meant researchers could not identify the potential impact of specific interventions. All they could provide was more general statements about what is effective.

A LACK OF DISTINCTIVENESS IN IMPAIRMENT-SPECIFIC PEDAGOGY

Specific skills and communication tools benefit some children more than others (for example, mobility training, Braille and signing) however, there is little or no evidence to support a distinctive general pedagogy for those who benefit from these modes of communication, such as those with a visual impairment (Douglas & McLinden, 2005). In trying to understand why this might be, consider the evidence in relation to auditory, language and memory characteristics identified from the research base for Down syndrome (see Table 27.1; Rix, 2009).

Factors which are associated with the syndrome are associated with many other children who do not have that syndrome; perhaps more importantly, the practices of the classroom which disable and enable a student labelled with Down syndrome will impact upon the learning of any student. These factors are not eradicated by shifting a particular population of pupils to a specific setting either. Consider, for example, the classroom performance of children with a hearing impairment in mainstream settings; assessed across many years, this has remained poor in comparison with their hearing peers (Qi & Mitchell, 2011) however, they fare little better in special settings (Stinson & Kluwin, 2011).

The nature of the research which a Table such as this draws upon – and which practitioners can draw upon – also creates constraints. Research approaches which focus upon individual groupings can only ever be partial. For example, how does the information in Table 27.1 inform practice across the curriculum, in art, sport, foreign languages, numeracy, or going on school trips, and so forth? Within an educational setting, practitioners need to take a broad view of the individual child, whilst research must always be a compromise. In the creation of 'expert' guidance and special pedagogies we imply that there is one way to know a particular group of people and that their needs are in some way different from the other learners. This is encapsulated within the general differences position, which Norwich and Lewis (2007) identify – particularly in relation to Attention Deficit Hyperactivity and Autism – and which means that supposed distinctive needs of a sub-group are in the foreground of teachers' pedagogic thinking, whilst needs that are unique to individuals and needs that are common to all are in the background.

THE NEED FOR TEACHERS TO SEEK SPECIAL PEDAGOGIC SKILLS

Norwich and Lewis (2007) suggest that there are three knowledges which a teacher brings to the teaching context:

- Knowledge as it relates to oneself as a teacher.
- Knowledge as it relates to the psychology of learning.
- Knowledge as it relates to curriculum areas and general pedagogic strategies.

They contend that once a child is associated with a particular grouping, these three knowledges are filtered by another knowledge:

- Knowledge as it relates to the nature of the SEN group.

Table 27.1   Possible enabling and disabling factors using auditory and linguistic characteristics identified through research with people with the Down syndrome label

Possible enabling factors?	Possible disabling barriers?	Characteristics from research base	
• Use of visual input when teaching	• Reliance upon auditory input	• 40% mild hearing loss	• Expressive language skills of a typical 3–5-year-old
• Encouragement of subvocal rehearsal through repetition in text	• Poor diction and clarity of speech	• 15% severe hearing loss	• Effective pragmatics
• Use of repetition to establish names, terms & concepts	• Presenting information when there are distractions	• 12% will have restrictions above 4000hz	• Reasonable lexicon
• Use of short words & sentences	• Use of complex sentences with a number of different concepts or individuals referred to	• Higher decibel level required	• Suggestion of reasonable comprehension
• Limit the number of concepts, names, etc. discussed per section		• Distortion of sound	• Poor morpho-syntax
• Attempt to have a maximum of two referential concepts, names etc per text section	• Use of long sentences	• Muffling effect	• Limited word recall
	• Use of broad vocabulary	• Fluctuating condition	• Simple sentences used
• Anticipate possible confusion through pronoun use & consider using the proper noun to refer to the key person or item	• Use of long words	• Reduction in sharpness	• Reduced production of pronouns, auxiliary verbs, subordinate clauses, conjunctions, and negative and passive sentences
	• Complex use of pronouns & proper nouns	• Slower response to auditory stimuli	
• Define clear, obvious points of reference & limit the need for switching focus	• Using negative & passive sentences	• Slower move initiation with auditory stimuli	
• Use short sentences – one clause better than two	• Introducing new words	• Usually a faster response to visual stimuli	• Complexity of extra-linguistic content and context correlates with language difficulties
• Use simple sentences	• Introducing dual tasks	• Average MLU of 3–5	
• Use familiar words – but define familiar with care	• Introducing a wide number of new skills	• Short-term memory of 3–4 digits	• Reduced definition of short stop consonant words
• Use words of one or two syllables	• Lack of possibilities to practice skills	• Not an attention or concentration problem	
• Try to use single-consonant words	• Relying on new skills	• Reduced sequential processing	• Two syllable non-word with consonant clusters poorly recalled
• Define possible new words	• Relying on memory alone	• Reduced rehearsal mechanisms	
• Reinforce new words through repetition so they become familiar	• Unfamiliar situations	• Poor subvocal rehearsal	• Repetition effected by word length and familiarity of word
• Reinforce the most significant words	• Assumptions about knowledge and vocabulary	• Potential operating speed reduction	• Word differentiation reduced by close following noise
• Use alternative words to explain meaning through context	• Requiring a rapid response	• Potential reduced store	• Difficulty learning new words
• Use alternative words to reinforce meaning through context	• Lack of signing	• Potential unusually fast decay of information	• Difficulty in differentiating brief and quiet sounds and short words
• Consider possible alternatives meanings for words – e.g., Cannon/Canon		• Ambiguous use of referential forms with more than two characters involved	• Tendency for avoidance strategies in complex situations
• Avoid the passive & negative forms		• Thematic Subject Restraint is often reversed	• Hesitancy to use new skills
• Use of sign supported language		• Language skills below cognitive test score levels	• Gestures support understanding
			• Gestures support expression

Source: Rix (2009).

This outcome is particularly problematic for the approaches teachers take in the classroom. Firstly, teachers tend to claim that they lack the skills and knowledge about the nature of the SEN groupings and how to work with them (Ali, Mustapha, & Jelas, 2006; Delgado-Pinheiro & Omote, 2010; Florian & Black-Hawkins, 2010; OFSTED, 2004; Scruggs & Mastropieri, 1996; Sharma, Forlin, & Loreman, 2008), and this perceived

lack of the fourth knowledge undermines the first three. Secondly, given the evidence we do have about what makes a difference for children identified with SEN 'teachers' confidence in the first three knowledges is central to their effectiveness.

Teachers may need to develop their understanding of the pedagogy they need to adopt, but few of them will be strangers to what the research is recommending. Marschark, Spencer, Adams and Sapere (2011), for example, conducted an extensive examination of the literature related to educating deaf and hard-of-hearing children. Despite a lack of coherent research in relation to effective practice for children who are deaf or hard-of-hearing, recent evidence had highlighted the need to focus upon everyday strategies and materials. They identified the use of concept maps and other diagrammatic representations, games and targeted activities aiming to demonstrate conceptual similarities and differences associated with language, perception, practical experiences, taxonomies and so forth. Evidence suggested that when a teacher engages with flexible modes of representing activities, providing a richer context for learning than they might typically provide for hearing students, explicitly linking information to what they know, using authentic interactive activities and cognitive scaffolding strategies, they increase the possibility of students who are deaf or heard-of-hearing achieving at the level of their peers.

In a 3-year systematic literature review of effective special educational provision in mainstream classes (Rix, Hall, Nind, Sheehy, & Wearmouth, 2009), it was also clear that there was the lack of robust evidence of the effectiveness of both special and general approaches. However, there was enough research rated as having medium or high reliability to say with some certainty that teachers had to:

- recognize their central responsibility for all pupils that they teach;
- engage with a 'teacher community' – either within the school or more often from outside the school – who have a shared model of how children learn;
- see the other adults within the school community as both teachers and learners;
- develop a shared philosophy around respecting everyone in the class and all their learning;
- recognize that social interaction is the means through which student knowledge is developed;
- understand the aims of the structured programme and subject, with a shared understanding of the characteristics, skills and knowledge associated with the subject to be taught;
- plan to scaffold both the subject's cognitive and social content;
- carefully plan group work, delineating the roles of group members;
- explore pupils' understandings, encouraging questioning and the making of links between new and prior knowledge;
- work on (basic) skills in a holistic way, embedded in classroom activity and subject knowledge;
- utilize pupils as resources for learning;
- use activities which the learner finds meaningful;
- use a range of different modalities, which are frequently 'hands-on' and offer diverse opportunities to engage with the concepts and with others' understandings of those concepts. (Rix et al., 2009, p. 92)

THE NEED FOR A SPECIAL LOCATION

McLesky and Waldron (2011) examined a range of different study types in segregated settings to identify components of high-quality, intensive instruction for elementary students with learning disabilities and then considered the extent to which these could be delivered in mainstream settings. They noted that instruction should be provided to small groups of students (from one to three students for optimal results) and that students should have similar instructional needs. They identified the need to focus on a small group of clearly

defined skills and/or concepts, using instructional sequences and materials that meet individual needs, which are well structured, providing explicit information with demonstrations, models and concrete examples. The instruction should be at a pace to allow sufficient time for mastery of targeted skills, providing cognitive support, carefully structured and sequenced, scaffolding to ensure high levels of success. They noted too the need for encouragement, feedback and emotional support, having opportunities to practice, respond and succeed, both as part of a group and independently. Independent practice therefore needs to be actively supervised, and continued until responses come automatically. To achieve this, teachers needed to monitor student progress at least weekly or biweekly, to assess the effectiveness of learning strategies being adopted and to ensure sufficient progress was being made, providing feedback to the student on that progress. Ironically, even though all these findings come from research conducted within segregated provision, McLesky and Waldron (2011) show that these approaches are not used typically in either the mainstream or within separate provision.

The weight of evidence within international reviews consistently rests with relatively accessible everyday practices which can be delivered in well-structured contexts, as opposed to highly specialized expertise requiring highly specialized environments. In 2010, the Irish National Council for Special Education commissioned an international literature review of best practice models (Cooper & Jacobs, 2010). They found high empirical evidence to support only three approaches, and low empirical support for many more of the popular and well publicised approaches (see Table 27.2).

The three approaches which have the strongest evidence base are those which are collective responses or can be delivered collectively by teachers with relatively little training. As with the other reviews it is evident that what class teachers do (or can do) is at the heart of the successful engagement and learning of children who might be considered to have additional support needs. Cooper (2011) talks about the clear evidence for recognizing that the personal qualities of teachers exacerbate or alleviate behaviour difficulties in the learning context, and that those with qualities of empathy and positivity induce an environment that promotes student engagement.

Table 27.2   Evidence of best practice models and outcomes in the education of children with emotional disturbance/behavioural difficulties: An international review

	Teachers' qualities and skills	Whole-school approaches	Small-scale provision	Parental support	Multi-agency working
High empirical support	The Good Behaviour Game	FRIENDS	Career academies		
Moderate empirical support	Kernels Student peer support Cognitive behavioural approaches	Success For All School-wide positive behavioural support Coping Power	Nurture groups	Parent management training	Fast-track
Low empirical support	Personal warmth In-service training on SEBD Management of the classroom's physical environment Functional behavioural analysis Instructional strategies	Circle Time SEAL Second Step Restorative practices	Outreach schools Residential provision	Incredible years Triple P	Gatehouse

Source: Cooper & Jacobs (2011).

THE NEED FOR A PARTICULAR TYPE OF EXPERT

Another group of reviewers have considered the impact of specific intervention types according to their quantitative research outcomes (see Table 27.3). Forness (2001) reports on a review of meta-analyses carried out with Kavale, in which they looked at the evidence associated with 20 interventions. They subsequently categorized these interventions according to whether they would be routinely used in general education (Special 'education'), whether they were focused upon overcoming hypothetical causes of individual deficits ('Special' education), or whether they involved treatments delivered by or relying upon considerable consultation with other professionals ('Related' services). They suggest that unequivocal improvement was associated with those practices which arose from general education, whereas practices involving related services tended to rest between effective and ineffective (with a potential 20 percentile rank improvement), and those associated with a specific deficit having minimal impact (with less than a 10 percentile advantage for students receiving these interventions).

The class teacher would appear to be the key to effective additional support. Jordan, Glenn and McGhie-Richmond (2010), as part of her extensive research into teachers and their classroom interactions, noted that effective teachers maximize instructional time through their preparation of lessons, clearly communicating expectations that all students will be engaged in learning to a high standard. These teachers had routines which allowed them to instruct individuals and small groups for large parts of the teaching time. They worked with *all* pupils engaged in interactions intended to foster student understanding and development of thinking skills.

CREATING LEARNING OPPORTUNITIES FOR ALL

The various reviews and research studies drawn upon above have suggested a range of approaches and practices which highlight a pedagogic tension between a group-based approach to learning and a direct instruction model with grouping by 'instructional needs' and with a possible focus upon individualized

teaching. Sheehy (2013) suggests that such studies however are actually describing facets of 'good teaching' for all. This is how many people have also theorized inclusive educational practice (Hart, 1996; Thomas & Loxley, 2001).

David Skidmore (2004) suggested that schools which successfully accommodate a diverse range of learners and pupils start from a consideration of the curriculum and subject lessons and from this develop their inclusive teaching practices. Using an immersive research methodology, Florian and Black-Hawkins (2011) looked to identify approaches that included all children through an in-depth study of 'teacher craft' in two Scottish schools. They conceptualized an inclusive pedagogy as:

> How to extend what is ordinarily available in the community of the classroom as a way of reducing the need to mark some learners as different. [an approach] providing rich learning opportunities that are sufficiently made available for everyone, so that all learners are able to participate in classroom life. (p. 14)

They sought a shift in thinking about pedagogy, seeking how teachers might avoid thinking about what works for most and what is additional for some, to a focus upon creating rich learning opportunities for the whole community of learners in the class (see Table 27.4).

Such an approach reflects the work of Hart, Dixon, Drummond and McIntyre (2004) who argued that educationalists need to focus on the context of the child's experience, setting aside the language of SEN and individualized 'outside' support. It echoes too the views of teachers engaged effectively with children identified with social and emotional behavioural difficulties (Goodman & Burton, 2010). These teachers recognized that they frequently reinforce unwanted behaviour; that subsequent interventions which took them out of the classroom could be an enjoyable contrast with regular school lessons making it harder to engage with students when they returned. They recognized, therefore, the importance of providing students with positive feedback, and multiple opportunities for achievement. They talked about defusing incidents, not letting them distract the planned flow of the lesson, by conveying that unwanted behaviour had been noted but discussion about it would take place at a less contentious time. They discussed building respectful relationships with students, finding out about their backgrounds and interests, so they could develop collaborative working, with both parties seeking to negotiate rather than confront each other. They sought to give the student responsibilities within the learning situation, as well as encouraging them to manage their own behaviour.

Table 27.3 Clusters of meta-analyses and mean effect sizes for special 'education', 'special' education and 'related' services

Special 'education'	ES	'Special' education	ES	'Related' services	ES
Mnemonic strategies	1.62	Psycholinguistic training	0.39	Behaviour modification	0.93
Reading comprehension strategies	0.94	Social skills training	0.20	Cognitive behaviour modification	0.74
Direct instruction	0.84	Modality instruction	0.14	Psychotherapy	0.71
Formative evaluation	0.70	Perceptual training	0.08	Stimulant medication	0.62
Computer-assisted instruction	0.66			Psychotropic medication	0.30
Peer tutoring	0.58			Diet restrictions	−0.12
Word recognition strategies	0.57				
Mean	0.84		0.20		0.53

Note: Effect sizes (ES) around .20 are considered small, .50 are medium, and .80 are large.

FACING THE BARRIER OF TRADITION

Whilst it is important to recognize the development of practice in this way, it is important to understand the barriers that also exist. In a report from 15 European countries (Meijer, 2001), five groups of variables were reported as being effective for inclusive education:

- Co-operative teaching/co-teaching/team teaching
- Co-operative learning/peer tutoring
- Individual planning
- Collaborative problem-solving
- Heterogeneous grouping/flexible instruction/differentiation

Such findings can be seen to partially cohere with the models presented above, but can also be seen to work against them. This represents the pedagogic tension between a group-based approach to learning and a direct instruction model.

This pedagogic tension between the group and the individual was evident in the NCSE study cited at the start of this chapter (Rix et al., 2013), in two countries which have largely adopted mainstream provision for all: Italy and Norway. For example, within Norway, the notion of individual planning lead to an adaptive curriculum for all pupils. At one point in time, teachers had been expected to create an individualized plan for each pupil, but now this focus upon individual planning results in just a few having an individual curriculum and their frequent isolation from their peers in the same classroom. Within Italy, practitioners talked about team teaching and wanting to engage in it, but it was suggested that generally they did not do so. They mostly experienced the partnership as one teacher leading the class and the other working with a small group.

Table 27.4   Inclusive pedagogy: Individualised vs. everybody approach

Strategy	Individualised approach to inclusion: most and some		Inclusive pedagogical approach: everybody
Work choice	Classroom teacher consults with colleagues in learning support about how to differentiate learning tasks so that specific accommodations for students with special educational needs are met.		
	Manifest in terms of inclusion: All students are working at the appropriate levels with work choices that have been predetermined and selected to respond to individual needs.	*Manifest in terms of exclusion:* Students see that work is set at different levels based on student ability. They know who is smart and who is not. They see that some students cannot do the work without extra help from another adult and others are not expected to need help.	Students choose how, where, when and with whom they learn. Teachers create options and consult with each student about how they can help.
	One student works individually with a learning support assistant.		Teachers create the conditions that support students to work with different groups.
	Other students are required to complete fewer or simpler tasks.	There is an assumption that the teacher has set the work at the 'appropriate level', possibly putting a ceiling on expectations for some students.	Classroom teacher consults with colleagues including those in learning support to share ideas about teaching and learning. Students are trusted to make good decisions about their learning.
Play zone	Play zone is an area of the classroom where a range of active play choices are provided. Teachers select activities that are matched to individual student needs.		
	Manifest in terms of inclusion: Rather than leave the classroom for physical therapy, a student with cerebral palsy is given physical therapy exercises that support his gross motor development. The teacher and/or classroom assistant do these exercises with him in the play zone during free time so that the student does not miss out on other structured activities.	*Manifest in terms of exclusion:* The student with cerebral palsy remains in the mainstream classroom for the full day but does not have opportunities to play with other children. There is some concern that his language is not developing because he is not talking in the nursery.	The play zone is a place where student learning is self-directed. By assessing how the student with cerebral palsy used his time in the play zone, the teacher was able to note that the student could talk when he wanted to because there was no pressure to do so. As a result of following the lead set by the student, the teacher is able to see progress that might otherwise have been obscured.

Source: Florian & Black-Hawkins (2011, p. 9).

Across the countries in the study, there was a belief that it became harder to work collaboratively and co-operatively as the child moved up the school levels. It seemed that the primary–secondary transition created a clear division in the mind of many practitioners, policy-makers and parents, with an almost resigned acceptance that at this point the curriculum cannot be delivered to as many pupils in the mainstream class. Part of this was framed as a consequence of the increasing focus upon academic and disparate outcomes, part as a consequence of a purported disinterest on behalf of teenagers, but most prevalent was a lack of belief in the possibility of differentiation to cover all pupils. There was a sense that good teachers were being put in an impossible position.

CONCLUSION

The lesson of the research is that even though teachers are frequently in a challenging position, they can always create opportunities for greater participation. The pedagogic approaches which have been shown to be effective are accessible for all practitioners. They build on traditional teaching skills and do not require

extensive training or deep knowledge of individual impairment characteristics. The key to their success are practitioner's expectations of themselves, their colleagues, and the children and young people they work with. These expectations need to begin with a recognition that effective pedagogy is based on the skills they already have available to them.

NOTES

1 See Winzer (1993), Deng (2007) and Richardson & Powell (2011) for a wider consideration of some of these traditions.

2 There was also frequent mention of using scientific research-based interventions, but no suggestion of what these interventions might be.

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28

Universal Design for Learning

David H. Rose, Jenna W. Gravel and David T. Gordon

Universal design for learning, or UDL, is a term that is relatively new to education, though its principles and concepts are rooted in decades of the learning sciences and education practice. The term, first coined in 1995 by researchers at the education R&D organization CAST, refers to a framework for curriculum design that provides flexibility in instructional goals, methods, materials, and assessments in order to optimize learning opportunities for all individuals (Meyer & Rose, 2000; Rose & Meyer, 2002; Rose, Meyer, & Hitchcock, 2005).

UDL is part of a larger movement in the industrialized world during the past decade aimed at making educational environments at all levels more inclusive by providing greater supports and instructional scaffolds for individual learners while maintaining high standards and aspirations for all (Minow, 2009). From our perspective, UDL enables educators to achieve curriculum differentiation – which UNESCO (2004) defines as 'planning, assessing, and teaching a heterogeneous group of students in one classroom where all students are learning at their optimal level'. To do this, UDL focuses on making curriculum itself more expansive and flexible – a departure from older models of identifying and accommodating individual special needs. From a UDL perspective, the disability does not reside with the individual student but within a curriculum that does not support heterogeneous people to learn at optimal levels (Rose & Vue, 2010).

At UDL's core is an appreciation – derived from the learning sciences, and especially cognitive neuroscience – for the variability and diversity of learners. UDL guides curriculum developers, teachers, and administrators in identifying potential barriers to learning in a curriculum or classroom and to reduce those barriers through a more flexible curriculum that is varied and flexible enough to provide sufficient options and alternative paths to success for every student (Rose & Gravel, 2010; Rose & Meyer, 2002).

Each day, educators are challenged to guide a group of varied individuals toward becoming motivated and successful learners. Yet educators often do not have the curriculum tools or support they need to educate in ways that allow various paths for success. Some of the differences among learners are obvious. Students may come from a variety of cultural, racial, linguistic, and socioeconomic backgrounds, bringing assumptions about the world and prior knowledge that differs from others (Chita-Tegmark, Gravel, Serpa, Domings, & Rose, 2012). They may have disabilities that impede their ability to learn in the context of a narrowly designed curriculum.

However, the differences from person to person are often much more nuanced – and profound – than these categories suggest. Neuroscience reveals differences in how individuals learn even among those who on the surface have much in common (Barsalou, Breazeal, & Smith, 2007; Goldberg, 2001; Luria, 1973; Rosenzweig, Breedlove, & Watson, 2005; Sanguineti, 2007). Furthermore, science demonstrates that variability is present not just from person to person (*inter*variability) but within an individual (*intra*variabiility); that is, an individual may respond differently at different times to the very same curriculum,

depending on the environment (Fischer & Immordino-Yang, 2008; Rappolt-Schichtmann, Daley, & Rose, 2012). The challenge facing educators, then, is not just to address diversity in the classroom but the inherent variability of all learners – and to do so in ways that build on, rather than downplay, individual differences.

FOUNDATIONS OF UDL

The term UDL echoes that of universal design, a human-rights movement in product development and architecture which calls for making built environments and consumer goods usable by the widest possible range of users (Mace, Hardie, & Place, 1996). A hallmark of universal designs is that while they are often developed to meet the needs of individuals with disabilities, they actually benefit a much broader range of people.

For example, sidewalk curb-cuts and doors that automatically open (such as those at a shopping mall) are universal designs that allow individuals in wheelchairs to navigate more freely and safely; they also help 'non-disabled' people who may be pushing a child's stroller or pulling a wheeled suitcase. Television closed captioning is another good example of universal design, as it enables those who are deaf or hard of hearing to enjoy a telecast while doing the same for 'non-disabled' patrons of health-clubs, restaurants, airports, and other noisy venues. The key to universal design is building in options at the design stage rather than retrofitting adaptations later so that products or built environments are more accessible and functional for everyone.

In the same way, UDL calls for making the curriculum more flexible in order to meet the challenge of individual variability and diversity. In this respect, UDL is one part of the overall movement toward universal design (Rose & Gravel, 2010; Rose & Meyer, 2002). Of course, teaching and learning are very different enterprises than designing products and built environments. So while some frameworks attempt to apply the architectural principles of universal design to teaching and learning (cf. universal design for instruction, universal instructional design, etc.), the UDL principles aim to provide baseline physical access to classroom learning materials while also guiding the development of an *accessible pedagogy*. UDL emphasizes the special purpose of learning environments, which is not merely to transmit information but to support and foster the changes in knowledge and skills that we call learning. For this reason, UDL principles and practices are rooted in the learning sciences – including education research, developmental psychology, cognitive science, and cognitive neuroscience. This allows educators to address barriers to learning that have intellectual, social, emotional, cultural, linguistic, and other origins – this in addition to addressing barriers inherent in the built environment (Rose & Gravel, 2010; Rose & Meyer, 2002).

The framework and guidelines for UDL are based on research and practice from multiple domains within the learning sciences (CAST, 2008, 2011; Rose & Gravel, 2010). The research from those fields shapes and guides both the scope of the pedagogy that UDL addresses (i.e., the critical elements of teaching and learning) and the range of the individuals that UDL addresses (i.e., the critical elements of individual differences).

At its simplest, UDL calls for developing learning environments that provide:

1. Multiple means of representation;
2. Multiple means of action and expression; and
3. Multiple means of engagement.

These three principles have been chosen because they address three critical features of any teaching and learning environment: the means by which information is presented to the learner, the means by which the learner is required to express what they know, and the means by which students are engaged in learning (CAST, 2008, 2011; Rose & Meyer, 2002).

While there are many ways to articulate the fundamentals of teaching and learning, the choice of these three foundational principles stems from their commonality across many aspects of theory and research in the learning sciences. Consider the field of cognitive neuroscience where it is common to think of three broad divisions of the learning brain: (1) the pattern-recognition capabilities in the posterior regions of the cortex, (2) the motor and executive capabilities in the frontal regions of the cortex, and (3) the affective or emotional capabilities in the medial regions of the nervous system (Luria, 1973; Rose & Meyer, 2002).

While even this division is an oversimplification, it is an articulation that is common and draws historically on Luria's classic work (1973) and has been elaborated and modified by many others. It is by design that the three principles of UDL match up with this framework from neuroscience in order to be systematic in considering learning differences. UDL accomplishes this by addressing in turn the perceptual learning of the posterior cortex, the strategic and motor learning of the anterior cortex, and the affective or emotional learning of the medial and orbital frontal cortex (Rose & Meyer, 2002). Beyond cognitive neuroscience, however, researchers and theorists in other learning sciences have adopted very similar frameworks to consider the scope of teaching and learning. Among the most prominent, Lev Vygotsky (1978), the preeminent Russian psychologist, and Benjamin Bloom (1984), the American educational theorist, both adopted a similar three-part framework for their foundations.

THE UDL GUIDELINES

From the three principles, CAST has developed nine UDL Guidelines (CAST, 2008, 2011) that form the primary basis for UDL implementation. The UDL Guidelines can be used to guide educators and curriculum developers in using evidence-based means of addressing the wide range of individual differences that any classroom typically experiences.

A critical foundation of the UDL approach is to identify those evidence-based practices that should be included within an overall universal design. Typically, these practices have already proven effective for individual students in the margins, but they are generally not integrated within the one-size-fits-all curriculum of regular education. By taking advantage of the power and flexibility of modern technology, UDL provides a vehicle for delivering these practices to the individual students for whom they are likely to be most effective. But which practices, and for whom?

The UDL Guidelines help in making informed decisions about what practices are optimal. Each of the UDL Guidelines and their associated checkpoints are rooted in research. They articulate the specific practices that have been shown to be effective for one or more specific types of learning or learners and that should be considered as important options to ensure that students with a full range of abilities and disabilities can access and progress in the general curriculum. The Guidelines assist curriculum developers (these may include teachers, publishers, and others) in designing flexible curricula that reduce barriers to learning and provide robust learning supports to all learners.

What follows is a brief overview of the UDL Guidelines based on the complete version authored by us and our colleagues from CAST, and published online at http://www.udlcenter.org/aboutudl/udlguidelines. Figure 28.1 shows the checkpoints associated with each UDL Guideline.

I. Provide Multiple Means of Representation

1: Provide options for perception

1.1 Offer ways of customizing the display of information
1.2 Offer alternatives for auditory information
1.3 Offer alternatives for visual information

2: Provide options for language, mathematical expressions, and symbols

2.1 Clarify vocabulary and symbols
2.2 Clarify syntax and structure
2.3 Support decoding of text, mathematical notation, and symbols
2.4 Promote understanding across languages
2.5 Illustrate through multiple media

3: Provide options for comprehension

3.1 Activate or supply background knowledge
3.2 Highlight patterns, critical features, big ideas, and relationships
3.3 Guide information processing, visualization, and manipulation
3.4 Maximize transfer and generalization

Resourceful, knowledgeable learners

II. Provide Multiple Means of Action and Expression

4: Provide options for physical action

4.1 Vary the methods for response and navigation
4.2 Optimize access to tools and assistive technologies

5: Provide options for expression and communication

5.1 Use multiple media for communication
5.2 Use multiple tools for construction and compostition
5.3 Build fluencies with graduated levels of support for practice and performance

6: Provide options for executive functions

6.1 Guide appropriate goal-setting
6.2 Support planning and strategy development
6.3 Facilitate managing information and resources
6.4 Enhance capacity for monitoring progress

Strategic, goal-directed learners

III. Provide Multiple Means of Engagement

7: Provide options for recruiting interest

7.1 Optimize individual choice and autonomy
7.2 Optimize relevance, value, and authenticity
7.3 Minimize threats and distractions

8: Provide options for sustaining effort and persistence

8.1 Heighten salience of goals and objectives
8.2 Vary demands and resources to optimize challenge
8.3 Foster collaboration and community
8.4 Increase mastery-oriented feedback

9: Provide options for self-regulation

9.1 promote expectations and beliefs that optimize motivation
9.2 Facilitate personal coping skills and strategies
9.3 Develop self-assessment and reflection

Purposeful, motivated learners

Figure 28.1 The UDL guidelines and checkpoints (www.cast.org)

PRINCIPLE I: PROVIDE MULTIPLE MEANS OF REPRESENTATION

This principle of UDL is all about the 'what' of learning – that is, information as it is perceived and comprehended. Individuals perceive and comprehend information in many different ways, so no one method of representation is going to serve the needs of all learners or of any individual learner as they change over time and context. For some, text is challenging, especially in the inflexible medium of print, while others may struggle to understand an audio track without a transcript. There are also differences in comprehension; each student brings a unique set of personal experiences and background knowledge. Since there is such a wide range of individual differences in representation, there is not one right way to present or make available what we want students to learn. The curriculum should have enough flexibility for students and teachers to determine the most appropriate way to access the content.

Guideline 1: Provide options for perception

To be effective, curricula must present information in ways that are perceptible to all students. Learners cannot learn information if they cannot perceive that information. Likewise, when information is presented in formats that require extraordinary effort or assistance, learning may be possible but unnecessarily challenging. For example, providing students with information presented only in text will automatically create a barrier to students who are struggling readers or to students who have visual impairments. Options such as text-to-speech, graphics, videos, and other presentation formats can be effective alternatives. Similarly, if information is only given in an audio format, then some students will not have access. A lecture, for example, may pose a barrier as the pace might be too fast or the student might not be able to hear clearly. The point is this: presenting information in only one way will unnecessarily exclude some students from the curriculum. This guideline focuses on reducing unintended barriers to perception by offering multiple ways to perceive information.

To reduce barriers to learning, therefore, it is important to ensure that key information is equally perceptible to all students by: (1) providing the same information through different sensory modalities (e.g., through vision, or hearing, or touch); or (2) providing information in a format that will allow for adjustability by the user (e.g., text that can be enlarged, sounds that can be amplified). Such multiple representations ensure that information is not only accessible to students with particular sensory and perceptual disabilities, but also easier to access for many others. When the same information, for example, is presented in both speech and text, the complementary representations enhance comprehensibility for most students.

Guideline 2: Provide options for language, mathematical expressions, and symbols

Learners have a broad range of strengths and challenges with various forms of representations. Vocabulary that may sharpen and clarify concepts for one student may be opaque and foreign to another. A graph that illustrates the relationship between two variables may be informative to one student and inaccessible or puzzling to another. A picture or image that carries meaning for some students may carry very different

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meanings for students from differing cultural or familial backgrounds. As a result, inequalities arise when information is presented to all students through a single form of representation. An important instructional strategy is to ensure that alternative representations are provided not only for accessibility, but for clarity and comprehensibility across all students as well.

If we present information through a single language, students with difficulty decoding, students with dyslexia, or students whose native language is not the instructional languages (e.g., English-language learners in Britain or the United States) will not have access to content. For this reason, it is important to incorporate strategies such as pre-teaching important terms, providing multimedia glossaries, offering alternate languages and translation supports, and utilizing images and video in order to help make academic content more accessible.

Our system of symbols raises similar concerns. As an example, mathematics is essentially a language of its own, and it is a language with which some students struggle (Geary, 2004; see also Chapter 6 of this book). A possible option to help with the difficulties students might have is to use manipulatives to make the symbols more concrete (Murray, Silver-Pacuilla, & Helsel, 2007). For example, when developing young students' understanding of the division symbol, a teacher could represent the division process by having students break apart a group of interlocking blocks into equal groups. This alternative representation allows students to interact with the mathematical concepts that they otherwise might not have had access if only the symbol was used. Similar strategies could apply to the sciences as well as other specialty content areas.

Guideline 3: Provide options for comprehension

The purpose of education is not to make information accessible, but to support students in transforming accessible information into useable knowledge. Decades of cognitive science research have demonstrated that the capability to transform accessible information into useable knowledge is not a passive process but an active one. Constructing useable knowledge, knowledge that is accessible for future decision-making, depends not upon merely perceiving information but upon active information processing skills like selective attending, integrating new information with prior knowledge, strategic categorization, and active memorization. Individuals differ greatly in their skills in information processing and in their access to prior knowledge through which they can assimilate new information.

Proper design and presentation of information – the responsibility of any curriculum or instructional methodology – can provide the cognitive ramps that are necessary to ensure that all students have access to knowledge. For this reason, the Guidelines stress the importance of providing students with models and scaffolds to highlight critical features, big ideas, and relationships, to guide information processing, visualization, and manipulation, and to facilitate the transfer and generalization of knowledge to different contexts.

PRINCIPLE II: PROVIDE MULTIPLE MEANS OF ACTION AND EXPRESSION

Learning involves more than acquiring information: it is also a proactive and expressive endeavor, requiring skills in strategy, organization, and communication. The way individuals approach learning tasks and express their understanding – the 'how' of learning – may differ dramatically from person to person. The UDL

Guidelines recommend that educators provide learners with many options both for approaching learning tasks and expressing what they know.

Guideline 4: Provide options for physical action

A textbook or workbook in a print format provides limited means of navigation or physical interaction (e.g., by turning pages with fingers, handwriting in spaces provided). Many interactive pieces of educational software similarly provide only limited means of navigation or interaction (e.g., via dexterously manipulating a joystick or keyboard). Navigation and interaction in those limited ways will raise barriers for some students – those who are physically disabled, blind, dys-graphic, or who have various kinds of executive function disorders. It is important to provide materials with which all students can interact. Properly designed curricular materials provide a seamless interface with common assistive technologies through which individuals with motor disabilities can navigate and express what they know – to allow navigation or interaction with a single switch, through voice-activated switches, expanded keyboards, and others.

Guideline 5: Provide options for expression and communication

There is no medium of expression that is equally suited for all students or for all kinds of communication. On the contrary, there are media which seem poorly suited for some kinds of expression, and for some kinds of students. While a student with dyslexia may excel at story-telling in conversation, he may falter drastically when telling that same story in writing. Alternative modalities for expression should be provided both to level the playing field among students, and to introduce all students to the full range of media that are important for communication and literacy in our multimedia culture. Additionally, students vary widely in their familiarity and fluency with the conventions of any one medium. Within media, therefore, alternative supports should be available to scaffold and guide students who are at different levels of their apprenticeships in learning to express themselves competently.

Guideline 6: Provide options for executive functions

At the highest level of the human capacity to act skillfully are the so-called executive functions. Think of what business executives do. They excel at setting goals, making plans and strategies, organizing, and monitoring progress. They set reachable, short-term goals but can simultaneously work toward broader, long-term goals. These skills are crucial to learning as well, and the Guidelines remind us of the importance of scaffolding students' executive functions. Associated with the prefrontal cortex in the brain, these capabilities allow humans to overcome impulsive, short-term reactions to their environment and instead to set long-term goals, plan effective strategies for reaching those goals, monitor their progress, and modify strategies as needed. Of critical importance to educators is the fact that executive functions have very limited capacity and are especially vulnerable to disability. This is true because executive capacity is sharply reduced when: (1) executive functioning capacity must be devoted to managing lower-level skills and responses which are not automatic or fluent (due to either disability or inexperience) and thus the capacity for higher-level functions is taken, and (2) executive capacity itself is reduced due to some sort of higher-level disability or to lack of fluency with

executive strategies.

The UDL approach typically involves efforts to expand executive capacity in two ways: (1) by scaffolding lower-level skills so that they require less executive processing, and (2) by scaffolding higher-level executive skills and strategies so that they are more effective and developed. Previous Guidelines have addressed lower-level scaffolding, this Guideline addresses ways to provide scaffolding for executive functions themselves. We can help students develop strong organizational and self-assessment skills by providing options such as guides to develop goal-setting, checklists to support planning, and models to encourage effective note-taking. Furthermore, it is important to prompt students to 'stop and think' about the work that they are doing. As educators, we want to continually monitor students' progress and help students to develop the skills to monitor their own progress at the same time. In short, providing options for executive functions is needed to create independent, expert learners.

PRINCIPLE III: PROVIDE MULTIPLE MEANS OF ENGAGEMENT

What motivates someone to learn? What makes them persist even when tasks are hard or boring? How can they self-regulate their own learning, the way effective lifelong learners must? The answers vary from person to person. Some students work best when they have a strict routine, while others like to be more spontaneous. Some students are most productive, or learn best with specific goals, while others need a more open-ended approach. There are three Guidelines that address and articulate this principle of proving multiple means of engagement (the 'why' of learning).

Guideline 7: Provide options for recruiting interest

Information that is not attended to, that does not engage students' cognition, is in fact inaccessible. It is inaccessible both in the moment – relevant information goes unnoticed and unprocessed – and in the future: relevant information is unlikely to be remembered. As a result, teachers devote considerable effort to recruiting student attention and engagement. However, students differ significantly in what attracts their attention and engages their interest. Even the same student will differ over time and circumstance: their interests change as they develop and gain new knowledge and skills, as their biological environments change, and as they differentiate into self-determined adolescents and adults. It is, therefore, important to have alternative ways to recruit student interest; ways that reflect the important inter and intraindividual differences among those students. One successful approach is to ensure that activities are as authentic as possible, thus increasing interest, purpose, and hopefully making it easier for students to connect the information to their background knowledge. Of course, for this to occur, students must feel safe within the learning environment. Teachers and students can work together to reduce threats and distractions, and build a classroom community that is appreciative, supportive, challenging, and inclusive.

Guideline 8: Provide options for sustaining effort and persistence

Many kinds of learning, particularly the learning of skills and strategies, require sustained attention and effort. When motivated to do so, many students can regulate their attention and affect in order to sustain the effort

and concentration that such learning will require. However, students differ considerably in their ability to self-regulate in this way. Their differences reflect disparities in their initial motivation, their capacity and skills for self-regulation, their susceptibility to contextual interference, and so forth. A key instructional goal is to build the individual skills in self-regulation and self-determination that will equalize such learning opportunities (see Guideline 9). In the meantime, however, the external environment must provide options that can equalize accessibility by supporting students who differ in initial motivation, self-regulation skills, etc.

This Guideline calls for balancing challenge and support in order to ensure that learning occurs most efficiently. If the activity is too difficult, students will get frustrated; if it's too easy, they may become bored. To sustain their students' efforts, this guideline reminds us that students need just the right balance of challenge and support. This balance can be found by creating opportunities to collaborate with peers or by providing alternatives in the tools and scaffolds offered for a particular assignment. Finally, it is important to provide students with feedback that allows them to see that practice and persistence are most important for success. Without feedback, learners won't know what they can improve upon and what they are doing well.

Guideline 9: Provide options for self-regulation

This Guideline shifts attention from the external environment to learners' internal abilities to self-regulate their own learning behaviors. While it is important to design extrinsic environments that support motivation and engagement (see Guidelines 7 and 8), the ability of learners to self-regulate – to strategically modulate their emotional reactions or states in order to be more effective at coping and engaging with the environment – is essential to becoming competent as learners. While many individuals develop self-regulatory skills on their own, either by trial and error or by observing successful adults, many others have significant difficulties in developing these skills.

Many classrooms do not address these skills explicitly, leaving them as part of the implicit curriculum that is often inaccessible or invisible to many. Furthermore, those classrooms that address self-regulation explicitly generally assume a single model or method for doing so. As in other kinds of learning, considerable individual differences are much more likely than uniformity. A successful approach requires providing sufficient alternatives to support learners with very different aptitudes and prior experience in learning to effectively manage their own engagement and affect. This Guideline prompts us to consider implementing strategies into our practice to develop students' intrinsic abilities to regulate their own emotions and motivations.

RESEARCH AND DEVELOPMENT IN UDL

Much of the extensive research that supports UDL principles and practices is referenced within the UDL Guidelines and can be found at www.udlcenter.org/aboutudl/udlguidelines. But it is also important to conduct prospective research on the application of these principles and practices as they are implemented in varied authentic settings and with a wide range of actual populations. Research of this kind is still in its early stages and much more will be needed. That research so far has focused primarily on the development of instructional interventions that apply the UDL principles in technology-rich environments. Learners are provided with scaffolds and supports to help them master standards-based content, to master learning strategies, and to be engaged in their learning. Making instructional goals, strategies, and materials highly flexible along these

three parameters lowers potential barriers to learning and increases opportunities to learn (Dalton & Proctor, 2008; Dalton & Rose, 2008; Proctor, Dalton, & Grisham, 2007). Some examples of promising results have been reported as follows:

- Dalton, Pisha, Eagleton, Coyne, and Deysher (2002) reported significant improvements in reading among middle-school students who read novels in a digital, universally-designed environment as compared with those who read only the printed book. Fourteen middle-school teachers read three age-appropriate novels over a period of six months, some using UDL support, some not. Controlling for initial reading achievement and gender, students in the UDL group achieved significantly higher comprehension gain scores on the Gates-MacGinitie reading comprehension subtest and demonstrated more productive engagement while reading and applying strategies than did their peers receiving print-based strategy instruction. These findings provide additional evidence of the effectiveness of technology mediated comprehension and supports the potential use of scaffolded digital text to bridge the research to practice gap in reading strategies instruction.
- The sheer quantity of words known (breadth) is strongly predictive of reading comprehension, yet little is understood about how quality of word knowledge (depth) affects comprehension. To explore this question, Proctor, Uccelli, Dalton, and Snow (2009) created a digital reading environment based on UDL principles and tested it with a group of 35 bilingual and monolingual fifth-grade students. The students worked on developing depth of knowledge of eight words, culminating in an activity in which the students produced captions for images related to each word. The captions were scored using a four-point depth scale, and similarities and differences between bilingual and monolingual students were assessed. Results indicated a significant effect of depth of word knowledge in predicting reading comprehension, particularly for students with average to strong oral language skills.
- Coyne, Pisha, Dalton, Zeph, and Cook Smith (2012) examined the effect of a technology-based UDL approach to literacy instruction, Literacy by Design (LBD), on the reading achievement of sixteen students with significant intellectual disabilities in Grades K–2. The LBD approach emphasizes reading for meaning, combining UDL-scaffolded e-books and letter and word recognition software. Nine teachers received training in research-based literacy practices. Of these, five received LBD training and implemented it four to five times weekly. Controlling for initial reading achievement, the LBD group made significantly greater gains on the Woodcock–Johnson Test of Achievement III Passage Comprehension subtest.

The opportunities for a much wider range of research are being rapidly expanded because of CAST's efforts to create tools and authoring systems with which other researchers and practitioners can develop curricula and test them experimentally. For example, the U.S. National Science Foundation supported the development of a UDL Curriculum Toolkit to facilitate the creation of instructional materials based on UDL principles for any grade level. Researchers and technologists from CAST, the University of Michigan, and Education Development Center collaborated to develop the UDL Curriculum Toolkit. The Toolkit software enables any curriculum developer or researcher to design web-based curricula or interventions 'from scratch', as well as to retrofit existing curricula into a scaffolded learning environment for middle- and high-school students. This curriculum authoring system has tools to support the creation of curricular materials that reflect the principles of UDL. Technically, the Toolkit is a configurable web-based application with resources to create UDL content on the web – a collection of Java packages and resources such as style sheets, graphic design assets, and documentation. The feature set includes a system of supports and scaffolds based explicitly on the UDL Guidelines that can be customized to any curricular context. (See http://udl-toolkit.cast.org for more information.) Research on the effectiveness of these curricula is now under way in collaboration with researchers from SRI, EDC, TERC, and the University of Michigan, for example.

In postsecondary education, the UDL framework has become more prominent in recent years in the United States (Rose, Harbour, Johnston, Daley, & Abarbanell, 2006; Smith, 2012). While UDL first appeared in higher education primarily as a topic of study – that is, as part of teacher training for elementary and secondary education – college and university instructors are now employing the principles in an effort to

improve their own classroom instruction. While the research on the effects of postsecondary UDL implementation is thin, one study shows that applying the framework to college courses can lead to positive academic outcomes and improved student engagement (Schelly, Davies, & Spooner, 2011).

In the United States, the Higher Education Opportunity Act (2008) defined UDL as:

> … a scientifically valid framework for guiding educational practice that--(A) provides flexibility in the ways information is presented, in the ways students respond or demonstrate knowledge and skills, and in the ways students are engaged; and (B) reduces barriers in instruction, provides appropriate accommodations, supports, and challenges, and maintains high achievement expectations for all students, including students with disabilities and students who are limited English proficient. (Sec.103 [a] 24) (Higher Education Opportunity Act, 2008)

The Act encourages teacher-preparation programs in colleges and universities both to instruct prospective teachers in UDL principles and also to model UDL practices in postsecondary courses.

The 2010 U.S. Department of Education's National Educational Technology Plan highlights the role UDL can play in changing the ecology of learning environments (U.S. Department of Education, Office of Educational Technology, 2010). The plan makes it clear that technology itself will not provide the remedy; indeed, new technologies can be just as rigid and inaccessible as print if they are not designed well. To ensure that the benefits of new technologies extend to students with a wide range of abilities and disabilities, the Plan calls for implementing technology in ways that are consistent with UDL principles.

CONCLUSION

Like many social advances, UDL began by addressing the needs of those most obviously marginalized and disadvantaged by existing educational practices: people with disabilities. Yet as new, highly flexible media have replaced the static medium of print as the primary vehicle for knowledge dissemination and as our understanding of learner variability has grown, the opportunity now presents itself to offer *every* individual a much-improved educational experience. This aspiration drives current efforts to implement, test, refine and improve UDL's principles and practices.

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29

Curriculum Considerations in Meeting the Educational Needs of Learners with Severe Intellectual Disabilities

Jean Ware

This chapter examines the ways in which schools respond to the needs of learners who have been identified as having severe learning difficulties (SLD), and the extent to which these responses mesh with the available research evidence on effective teaching and learning strategies for these learners. It focuses on four main areas; (1) curriculum, (2) the development of skills, in particular communication, (3) teaching and learning strategies and (4) participation, especially in decision making about the future. In addition it attempts to examine the extent to which research and practice inform each other.

APPROACHES TO CURRICULUM

One interpretation of curriculum is that it is the way in which schools and education systems attempt to reach a match between the needs of learners and the needs of society, and so fulfil the aims of education (Kelly, 2009). Curricula are designed to ensure that learners emerge from schooling equipped with the skills that society needs them to have, and which they need in order to function, and to experience a good quality of life. The balance between these different aspects varies from time to time and place to place, for example Kelly (2009) suggests that the emphasis in Britain is currently too heavily on the needs of society.

When learners with SLD first began to be included in education in some countries in around 1970 (Sweden – 1968, England and Wales – 1970, USA – 1974), it was assumed that the appropriate/natural response to their needs was via a curriculum radically different to that which was then the norm in mainstream schools (Wilson, 1981). Even so, there was considerable debate over what this curriculum should look like, a debate which partially reflected a more deep-seated disagreement about how SLD should be conceptualised. The main split was between a functional and a developmental curriculum, perhaps reflecting *to some extent* an underlying disagreement between those who accepted the views of developmental psychologists such as Piaget, who argued that there is a common sequence to development shared by all children, and those who tried to demonstrate that in at least some aspects the development of children with learning difficulties was fundamentally different from that of their typically-developing peers; often characterised as the delay vs. difference debate (Hodapp, Griffin, Burke, & Fisher, 2011). It was natural for those who took the view that children with SLD were at a similar stage in terms of cognitive development to younger children without learning difficulties (the similar sequence hypothesis), to advocate a developmental curriculum. For advocates of the difference position, what was important was not which model of curriculum was adopted, but whether the teaching strategies employed took account of the cognitive differences they believed existed between those with and without learning difficulties (see below). On the other hand, many of those working to develop

curricula in the early schools for children with SLD adopted a largely pragmatic approach and were consequently advocates of a functional curriculum (see, e.g., the account by Hegarty, Pocklington, & Bradley, 1982). Consequently, they saw the delay vs. difference debate as largely irrelevant, arguing that the critical issue was what skills and knowledge children needed to acquire to function effectively in the world after school, and how to best to help them acquire these. In practice, schools often combine developmental and functional approaches (Browder, 2001). Although some researchers in the 1980s investigated the curriculum content on offer to learners with SLD (e.g., Evans & Ware, 1987; Hegarty et al., 1982), there has been little recent research in this area (Porter & Lacey, 2005).

More recently, in both Britain and the US, the emphasis has shifted to the notion of curriculum as *entitlement:*

> The National Curriculum secures for all pupils, irrespective of social background, culture, race, gender, differences in ability and disabilities, an entitlement to a number of areas of learning and to develop knowledge, understanding, skills and attitudes necessary for their self-fulfilment and development as active and responsible citizens. (Department for Education and Science/Qualifications and Curriculum Authority, 1999/2004, p. 12)

Subsequently, the debate has been much more around access to/participation in a common curriculum, including whether a common curriculum is appropriate for all children, especially for those with the most severe intellectual disabilities, and whether a common curriculum can be successfully combined with teaching those skills identified as most essential for an individual, for example through an individualized education programme (IEP). In Britain, this debate has been going on since the introduction of the National Curriculum in 1988. In the US, both the No Child Left Behind Act of 2001 and the Individuals with Disabilities Education Improvement Act (IDEIA) stress student involvement and progress in the general education curriculum (Browder et al., 2007).

Norwich (2008), discussing dilemmas of difference, inclusion and disability, refers to this as the curriculum dilemma. He found that this dilemma was regarded as significant by education professionals in all three countries where the research was carried out (the Netherlands, US and England). In the UK, there is strong evidence that the issue of reconciling entitlement to access a common curriculum with providing for individual needs continues to provoke tensions for teachers of learners with SLD/PMLD in frequent discussions on the SLD Forum (http://lists.education.gov.uk/mailman/listinfo/sld-forum), an email forum for teachers of children with SLD. An analysis of these discussions suggests that the main issues for teachers are:

- doubts about the extent to which learners with SLD can be enabled to access the general curriculum, and how best to support access for them, and
- doubts about the relevance of that curriculum to their needs.

RESEARCH ON CURRICULUM ACCESS

There is relatively little research evidence relating to the issue of curriculum access, and the different approaches adopted by researchers working in different countries make it difficult to compare their findings. Researchers from the US have tended to judge access to the general education curriculum by the extent to which learners identified as having special educational needs (SEN) are working on tasks linked to school district standards (either at the same level as their peers or at an alternative level). For example, Wehmeyer

and colleagues investigated these issues specifically in relation to learners with intellectual disabilities (ID) and found that while those with mild ID were engaged in tasks linked to school district standards in 87% of the intervals in which they were observed, learners with more severe ID were doing so in only just over half the intervals (55%) (Wehmeyer, Lattin, Lapp-Rincker, & Agran, 2003). However, data on the extent to which the learners concerned are judged to understand or be achieving on these tasks is not included in these studies. Ware, Butler, Robertson, O'Donnell & Gould (2011) obtained very similar results in a recent study in Ireland, in which they assessed the access to the curriculum for young children with SEN in mainstream classes. However, Ware and colleagues not only examined the extent to which the children with SEN in their study were engaged in the same tasks as their peers, they also tried to estimate whether or not they were achieving on these tasks. Overall, the learners in this study were engaged in the same tasks as their peers on 83% of tasks; additionally, they were judged to be achieving on the majority of these tasks (73.2%). There were only two learners with SLD in Ware et al.'s study, but, by contrast with the overall results, neither of these children was ever engaged in the same activities as their peers during the observations although they *were* always engaged in tasks which were similar to those undertaken by their peers, but differentiated to meet their needs. Ware et al.'s results are not directly comparable with those of Wehmeyer et al. (2003) nonetheless the similarities suggest that teachers find providing meaningful access to the general education curriculum particularly challenging for learners with SLD and PMLD.

Although there are comparatively few studies of the way in which schools and teachers attempt to provide access to the general curriculum for learners with SLD, what studies there are agree that the most common response to the needs of this group is to provide access to a learning support assistant (LSA) (paraeducator). In studies by both Soukup, Wehmeyer, Bashinski and Bovaird (2007), and Ware et al. (2011), learners with ID were supported by an LSA for over 50% of the time. The efficacy of LSA support has become a highly contested area, with both positive and negative impacts of their use being cited (e.g., Blatchford, Basset, Brown, & Webster 2009; Soukup et al., 2007). However, although the provision of an LSA is not the only response to enabling access to the general education curriculum for learners with SLD, Soukup et al. (2007) Ware et al. (2011) and a number of other studies have found that teachers were much less likely to use other types of modification or supports, such as modified or different materials to enable curriculum access. As Lee, Soukup, Little, and Wehmeyer (2009) point out, this may mean that while learners with SLD have some access to the general education curriculum, these opportunities could be more effective if appropriate curriculum modifications and supports were in place. They also suggest that the use of additional or alternative support, including different types of grouping and peer support may be an issue for professional development.

TEACHING AND LEARNING STRATEGIES

The debate as to whether or not different teaching strategies are required for learners with SLD is still very much in process. As mentioned above, the argument for different teaching strategies is based in part on the idea that there are systematic differences in the ways in which people with and without learning difficulties learn most effectively; or that learners with particular types of learning difficulties or with specific aetiologies have particular difficulties in learning in some areas, and that consequently the strategies which best facilitate

learning for those with and without learning difficulties, or with particular aetiologies are likely to be different. Norwich and Lewis (2005) refer to this as the group differences position.

There is evidence on both sides of this debate. For example, a considerable volume of research has been published over the last four decades which supports the similar sequence hypothesis (see above) (e.g., Bennett-Gates & Zigler, 1998). However, there is also evidence that development may be more uneven for children with severe and, particularly, profound learning difficulties than for their typically-developing peers (Dunst & Rheingrover, 1981; Kahn, 1976; Welsh Assembly Government [WAG], 2006). This 'unevenness' between different aspects of development may be especially pronounced where a child has other impairments in addition to SLD, with potential implications for curriculum progression and teaching strategies.

The differentiation of educational provision according to the child's diagnosis is seen at its most extreme in the Soviet Union. The Soviet/Russian system is explicitly research-driven with close links between universities and educational institutions and research in defectology/correctional pedagogy underlying practice (Thomson, 2002). This system, with its strong specialist knowledge base, has been highly praised by some Western authors (e.g., Suddaby, 1988). However, under the Soviet system, children with SLD were often excluded as ineducable (just as they were at one time in the West) and they have only recently been included to some extent in education, thus there is no direct evidence available from this source about the efficacy of specialist pedagogies for children with SLD.

More recently, research especially in the US, but also elsewhere, has tended to emphasize potential differences between different aetiological groups, rather than simply between those with and without learning difficulties (Hodapp et al., 2011). A recent British project has investigated approaches for children with what are described as 'complex learning difficulties and disabilities'. While this group is said to include learners who may have SLD or PMLD, the main focus of the project seems to be on learners with particular conditions, such as foetal alcohol syndrome, who may or may not have SLD:

> This new generation of children and young people includes some with rare chromosomal disorders, some who survived extreme prematurity or multiple disabilities at birth, and others affected by prenatal drug and alcohol abuse. These children have complex learning difficulties and disabilities (CLDD). They learn and respond differently to previous generations of children with profound and multiple/severe learning difficulties. (http://complexld.ssatrust.org.uk/project-information.html)

A reading of the briefing sheets on these different conditions on the Specialist Schools and Academies Trust (SSAT) website (http://complexld.ssatrust.org.uk/project-resources/cldd-briefing-packs.html) shows that they suggest a wide range of possible difficulties and teaching approaches for each condition, many of which would not be regarded as particularly specific. Additionally, although the report on the project includes a comprehensive results section, no data is referenced which would support the claim that these specific approaches have produced improvements for learners with these specific conditions, and there appears to have been no attempt to compare approaches specified as useful for particular conditions with general good practice (http://complexld.ssatrust.org.uk/project-information.html). Indeed, the main emphasis in the project seems to have been on increasing the learners' engagement, which, as Atkin (2012) points out had already been identified as central by a range of other writers in the field.

In a comprehensive review of the evidence for specialised methods for teaching pupils with SLD, Porter (2005) highlights several characteristics of research in this field:

- An overall lack of research on which to base an evaluation of whether there are distinctive approaches to the needs of this group of learners
- Domination by a comparatively small number of researchers/research groups
- A growth in aetiology specific research, especially in relation to Down syndrome and to Autistic Spectrum Disorder
- Comparatively little research on learning processes in relation to learners with SLD in general

Despite these limitations, Porter argues that it is possible to identify some particular difficulties experienced by learners with SLD, which are likely to influence what teaching strategies are found to be effective. Porter particularly cites work in the area of memory, which is fundamental to school learning. Early studies on memory examined the processes of encoding and retrieval, and the use of a variety of memory strategies and concluded that learners with ID have particular problems in these areas (e.g., Belmont, 1978; Borkowski, Peck, & Damberg, 1991; Weiss, Weisz, & Bromfield, 1986). Interestingly, however, by the early 1990s, Borkowski and his collaborators were arguing that poor strategy use was insufficient to explain the performance of learners with ID on such tasks and that, therefore, strategy instruction alone was unlikely to overcome their difficulties; motivation, attributions and self-esteem also needed to be taken into account (e.g., Borkowski, Chan & Muthukrishna, 2000; Borkowski & Day, 1993; Borkowski & Muthukrishna, 1995; Groteluschen, Borkowski, & Hale, 1990). More recent research has tended to confirm that there are differences in memory performance between typically-developing (TD) learners and those with SLD. A study by Henry and McLean (2002) showed differences in performance between TD learners and learners with SLD (and MLD) of the same mental age (MA) on some memory tasks but not others. On some tasks, the learners with SLD did less well than MA-matched controls; supporting the view that these learners have particular difficulties in this area. On the whole, these tasks involved a verbal component, which is consistent with other studies showing that processing of verbal material is a particular problem perhaps due to fluency and articulation problems (Porter, 2005). On other tasks there was no difference between learners with SLD and MA-matched controls, supporting a developmental view; and on yet others, learners with SLD out-performed MA-matched controls. Henry and McClean (2002) suggest that this final group of tasks may contain an experience or familiarity component. Work by Carlin and his associates in the past decade has identified that learners with ID differ from both those without any apparent learning difficulties and those with high-functioning autism, in a number of aspects of memory; for example initial encoding (Carlin, Soraci, & Strawbridge, 2005) and the extent to which they produce false positives in a recognition memory test (Carlin, Toglia, Belmonte, & Di Meglio, 2012). However, Carlin et al. (2012) also found that a strategy frequently employed in the classroom to help learners with ID, that of adding visual cues to enhance learning of material, is more effective for both those with and without SLD. This tends to add support to the concept of universal design, where learners with ID are included by changes to task presentation for all learners. Carlin et al. (2012) suggest that altering the way material is presented in the classroom is an effective alternative to trying to teach strategy use, particularly as it is under the teacher's control. However, as the literature reviewed above shows, there is also considerable evidence for specific strategy instruction for learners with SLD, precisely because this enables them to be active participants in their own learning. Importantly there is also evidence that account should be taken of other aspects such as motivation and self-esteem, for example the work of Borkowski and his co-workers mentioned above). In these areas, the problems experienced by learners

with ID may be related to societal issues, such as the frequently negative attitudes they experience.

DEVELOPMENT OF SKILLS

One exciting development over the past five years has been the increased emphasis within mainstream education on teaching skills to enable all learners to adapt to new situations. For example in Wales, from 2008 all pupils have been expected to learn skills for numeracy, thinking, ICT and communication (WAG, 2008), Arguably this emphasis on skills for all learners makes it easier for pupils with SLD to access the curriculum, and to some extent resolve the tensions referred to above. Indeed, in Wales work has been taking place since the inauguration of the skills framework which endeavours to demonstrate how teachers can help learners with SLD and PMLD develop these skills starting at the very earliest levels (Ware, 2011). Although the skills framework in Wales has now been largely subsumed into the National Literacy and Numeracy Framework (Welsh Government 2013), this includes components developed from the earlier work which are designed to enable all learners including those with SLD and PMLD to access the curriculum at an appropriate level.

COMMUNICATION

Language and communication has long been seen as centrally important in the curriculum for learners with SLD. In Britain, there was a project on 'teaching language and communication to the mentally handicapped' run by the schools council as early as 1977 (Leeming, Swann, Coupe, & Mittler, 1979) and in America, the work of Schweigert and Rowland has been developed over several decades (e.g., Schweigert, 1989; Schweigert & Rowland, 1992; Rowland & Schweigert, 2012). Communication and language continue to be regarded as being at the heart of the curriculum for learners with SLD, although the emphasis has shifted over the years, both in terms of what should be taught and the strategies employed. Early curricula tended to stress the acquisition of spoken language (e.g., Staff of Rectory Paddock School, 1982), whereas currently the emphasis is much more strongly on communication through a variety of means. In part, this reflects research on how TD young infants learn to communicate, and a greater appreciation that communication involves a two-way social interaction which is not just about language; and in part it reflects developments in alternative and augmentative communication. Communication skills are now seen as encompassing written, graphical and visual presentation, and an awareness of the need to take account of the intended audience (WAG, 2008). It is, however, easy to over-emphasize this shift in emphasis; teachers in the early SLD schools taught language in order to enable their pupils to communicate:

> … the programme of semantic and syntactic objectives set out in Appendix D (p. 140) is only part of the communication work which MH [mentally handicapped] pupils need; in addition to receiving structured language teaching, they also need to participate, so far as possible, in functional language use and to generalise the skills they are learning to 'real-life' settings. (Staff of Rectory Paddock School, 1982, p. 35)

STRATEGIES FOR TEACHING COMMUNICATION

A recently published systematic review of communication interventions with people with SLD concludes that there is a good evidence base for the effectiveness of communication intervention in general (Snell et al., 2010). This review covered a wide range of interventions including: PECS, intensive interaction, functional communication training, systematic social interactive training, Enhanced Milieu Teaching and time delay to

promote speech. However, nearly 90% of the interventions were delivered on an individual basis and in over 50% it was the researcher who implemented the intervention. Additionally, although the intervention was classroom-based in 44% of the studies reviewed, such interventions as these are not necessarily the normal way in which teachers respond to the communication needs of learners with SLD. Another recent review throws more light on the strategies which are most likely to be used by practitioners (Goldbart & Caton, 2010). This review, focused on communication strategies used with people with PMLD, covers some of the same interventions as Snell et al. (2010). However, Goldbart and Caton (2010) report both the strength of the evidence base for each specific intervention, and the extent to which these are mentioned by practitioners, parents and researchers. Their work shows some discrepancies between the approaches for which they found the strongest evidence base: using switch technology to teach cause and effect as a route to communication, intensive interaction, and the use of low (e.g., signs and symbols) and high tech (e.g., VOCAs) augmentative and alternative communication (AAC) systems. Of these, only intensive interaction was mentioned frequently by practitioners, with the use of switch technology, for which there is the strongest evidence base, being mentioned by very few practitioners. Support for the use of AAC systems also comes from a recent paper by Harding, Lindsay, O'Brien, Dipper and Wright (2011) who report both on the evidence base, and on the success of an intervention with two participants with PMLD in a classroom setting. Both practitioners and parents tend to favour informal approaches, such as getting to know the meaning of the individual's behaviours, and giving time for a response. Goldbart and Caton's 2010 report highlights an important issue raised at the beginning of this chapter; the extent to which research and practice inform each other. As Goldbart and Caton (2010) state, there are urgent needs for research into strategies which are actually used by practitioners, and for training in approaches for which there is a good evidence base. An additional area where further research is urgently needed is into the sustainability by teachers in classrooms (including inclusive classrooms) of interventions/evidence-based teaching strategies, as it is clear that many of the successful interventions reported in the literature required considerable 1:1 time to be spent with learners by researchers and practitioners.

By contrast with the intensive interventions discussed in the previous section, Ware (2011) reports case studies from schools on the successful teaching of thinking and communication skills to learners with SLD by classroom teachers with support from the Department of Education in the WAG. In one of these case studies, Key Stage 2 pupils with SLD prepared and presented a story about a monster for younger pupils in their school, taking into account the younger pupils' needs. Similarly, Bosley (2011) reports the acquisition of report-writing skills by older pupils in an SLD school, who undertook disability access surveys for other local organizations. These demonstrations that learners with SLD can learn to tailor their communication to the audience fit well with recent research into communication development in TD young children (Grosse, Behne, Carpenter, & Tomasello, 2010; Liszkowski, Carpenter, & Tomasello, 2008). They also offer evidence that, given appropriate opportunities and 'real' reasons for learning new skills, learners with SLD can achieve more than might previously have been expected. Some authors (e.g., Gallagher, 2004) argue that a problem-solving or constructivist approach such as that taken by the teachers in these small studies should entirely replace 'traditional teaching' in which teachers apply technical skills to help learners learn. However, it is the thesis of this chapter that this is a false dichotomy. Although the evidence base may be small, some specialized techniques, which would not be used with TD learners, have been shown to be highly effective for learners

with SLD, enabling them to participate more meaningfully.

PARTICIPATION

If curriculum is the way in which schools attempt to equip children of all abilities with the knowledge and skills required for adult life, participation is the object of the exercise, the nub of the whole thing. The more severe the child's difficulties, the more acute the problems with regard to meaningful participation in both the academic and the social life of the classroom become. In addition to addressing the philosophical issue of a common curriculum, a number of attempts have been made to address the practicalities of ensuring that a diverse pupil group can participate meaningfully in a common curriculum, including partial participation, universal design and the idea of learning in the context of a subject, as opposed to learning the subject.

Baumgart et al. (1982) introduced the concept of partial participation as a way of addressing the tension experienced by teachers attempting to teach the early stages of a skill to a pupil with profound learning difficulties who they were fairly certain was unlikely ever to master the complete skill, in situations where the skill is not useful until it has been fully acquired. Baumgart et al. (1982) suggest that rethinking the components of which the skill is made up can represent a solution to this problem.

Another route to enhancing the participation of pupils with severe disabilities in inclusive classrooms is through the support of their non-disabled peers, indeed the opportunity for such interactions is often cited as an important benefit of inclusion. However, observation studies of interactions between pupils with and without severe disabilities have consistently shown that levels of interaction are low (Carter, Hughes, Guth, & Copeland, 2005; Rubin, Bukowski, & Laursen, 2009). There are a number of potential reasons underlying this lack of peer interaction, including the use of 1:1 adult support with pupils with severe disabilities and lack of teacher-approved opportunities, especially in secondary classrooms (Carter, Moss, Hoffman, Ching, & Sisco, 2011). However, despite the importance of interactions with non-disabled peers, and despite a considerable body of studies demonstrating the short-term efficacy of a range of interventions designed to enhance peer interactions, few published studies examine the sustainability within the classroom or long-term impact of such interventions on either peer relations or academic outcomes (Carter et al., 2011). In addition, Williams (2011), raises an important issue, which might potentially apply to peer interactions of this sort; that interactions in which the person with SLD is not treated as an equal are likely to contribute to their marginalization and reduce, rather than increase participation.

CONCLUSION

Much of the debate in academic journals in the past decade around the education of children with SLD has been based on the assumption that the ideal to be aimed for is access to the same curriculum for all children, using broadly similar pedagogical strategies, differentiated only on the basis of the individual learner's responses. The thin but persistent thread of evidence that some specialist techniques are extremely effective, and that children tend to make best progress when taught by teachers with specialist expertise (e.g., Office for Standards in Education, 2006) is often ignored. By contrast, the responses of many practitioners to this group of learners reflect ongoing concerns that we continue to struggle (to paraphrase Wedell, 1995) to give them access to a system which is unsuitable for them. The link between research and practice, academic debate and

day to day life in the classroom often seems tenuous at best. Further research is needed into specialised interventions which can strengthen the evidence base on which they are evaluated. Research is also needed into how evidence of the effectiveness or otherwise of an intervention can be made accessible to teachers in a form which influences their practice. But however much evidence is collected of the effectiveness of an intervention in a research setting, it will make little difference to learners with SLD unless we can also come to understand how effective interventions can be made sustainable in ordinary classrooms; research into this issue is critical.

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Assessment

30

Beyond Categories and Labels: Knowledge to Support Assessment for Learning 'Disability' – A Problem Well Put?

Judith Hollenweger

Assessment for learning can be defined as 'the process of seeking and interpreting evidence for use by learners and their teachers to decide where the learners are in their learning, where they need to go and how best to get there' (Assessment Reform Group, 2002; Black & Wiliam, 2009). It is an inquiry into the child's situation in order to make sense of it and to gain knowledge that can guide actions aimed at promoting learning. The situations that children with disabilities or special needs and their teachers find themselves in can create perplexity in both; each situation having its unique doubtfulness as to where learners are in their learning, where they need to go and how. Inquiry starts with 'things of the environment experienced in our everyday life, with things we see, handle, use, enjoy and suffer from' (Dewey, 1929, p. 103), like being confused about students' difficulties in learning. Pinpointing the problem is the first step towards solving it. Therefore, the need of teachers and parents to identify the problem and to define it is not only natural but also a necessary step toward problem-solving. In the case of children with a disability, specialized knowledge may be required to adequately understand the present situation of the child, set meaningful educational goals and develop strategies as to how best to reach them. But do concepts like 'attention deficit hyperactivity disorder' or 'intellectual disability' help teachers to locate problems they can solve? Parents may feel relieved when they are given a diagnosis to explain the difficulties of their child (Graungaard & Skov, 2007), teachers may experience less anger and more pity if they know that a child is 'learning disabled' (Clark, 1997). But how helpful are such diagnoses as conceptualizations of 'problems' as beginnings of inquiries into learning and development? Unlike in medicine, where diagnoses tend to have direct consequences for treatment, teachers gain little insight from them to support student learning. Traditional disability categories elaborate everything a teacher cannot change and hide the knowledge relevant for solving problems related learning and development.

'A problem represents the partial transformation by inquiry of a problematic situation into a determinate situation', and 'a problem well put is half-solved' (Dewey, 1938, p. 108). The process from 'perplexity' to 'problem' therefore merits closer attention. If the problem is badly put, we will seek the wrong evidence and an inquiry meant to support learning will be led astray. Solutions will be found and acted upon that are unconnected with problems of learning. Defining a 'good problem' therefore is the key to intelligent action. In other words, the way we think about 'disability' affects our practice. Recently, more attention has been given to ontological and epistemological worldviews, to cognition and beliefs of teachers influencing their practice (Jordan & Stanovich, 2003; Maggioni & Parkinson, 2008; Schraw & Olafson, 2008). But also students' epistemic and ontological views affect and are affected by classroom practice (Buehl & Alexander, 2011; Cano & Cardelle-Elavar, 2004; Hofer & Pintrich, 1997). Dewey was the first to describe the close link between

knowledge and action of teachers and students: according to him, nothing exists independent of the act of knowing and a true and valid object of knowledge has consequences for practical action (1929). 'Disability' then needs to be understood as something contextual rather than absolute and as something constructed by us rather than existing independent of our actions. Teachers embarking on assessment for learning need to accept the challenge that things 'are to be known, rather than objects of knowledge' (Dewey, 1929, p. 103).

Today's conceptualizations of disability locate the problem solely within the child, while assessment for learning should be a process by which learners and their teachers develop a shared understanding of the problem. Terms like 'intellectual disability' focus on what cannot be changed, while assessment of learning should help teachers and students to identify problems related to changeable states rather than fixed traits. We assume that 'learning disabilities' can be established independent of learning situations and that 'autism' is something that exists independent of our actions. Yet Dewey claims that 'instead of accepting the qualities and values – the ends and forms – of this world as providing the objects of knowledge […], experimental inquiry treats them as offering a challenge to thought' (1929, p. 103). Clearly the way we generally understand 'disability' today is closer to Dewey's 'object of knowledge' than to 'something that is to be known' or a 'challenge to thought'. And although many professionals reject the use of disability categories for educational purposes (Farrell, 2010), they remain 'real' through their everyday application in educational settings. During processes of sense-making teachers do not only rely on their minds, but also on knowledge and cognition of others such as students, parents or other professionals and on tools such as assessment instruments (Giere, 2007; Pea, 1993; Salomon, 1993). As the only well-established and shared conceptualization, disability categories influence the way we think about disability. Therefore, despite their theoretical rejection, they remain powerful knowledge objects deeply embedded in procedures, assessment techniques, and equipment (Daston, 2000).

If 'disability' should be understood as something to be known rather than something already known; something helpful in understanding a problem rather than being the problem, then fixed and one-dimensional conceptualizations of disability are most unhelpful. They are left-over relics from old times as will be explored later on. Without understanding where they came from, how they shape our knowledge and influence our habits of thinking, there is little hope that we can go beyond them. Categories and 'knowledge objects' cannot be avoided, but they need to be given more attention. There is evidence that the way we think about 'knowledge' influences the way in which problems are understood and information searched (Whitmire, 2003). Teachers need to develop a deeper understanding of the nature of their own actions (e.g., in defining problems) and how it interacts with processes of learning and 'disablement'. In order to achieve this, a new and more complex way of 'knowing disability' in the context of learning needs to be developed. If teacher knowledge and action is to be grounded in a new way of 'knowing disability', it is necessary to use more complex representations of knowledge that can truly inform practice.

CATEGORIES AND LABELS AS BUILDING BLOCKS OF KNOWLEDGE

Categorization is a fundamental cognitive process and an inescapable feature of human existence (Bruner, 1973); to think is to categorize (Harnad, 2005), the brain constantly classifies objects and events and by doing so constructs our knowledge of the world (Cohen & Lefebvre, 2005). We go 'beyond the information given'

(Bruner, 1973), to make sense of a world that otherwise would be too bewildering, and we invent 'things' we cannot directly experience or observe – like characteristics of other people (Stabel & Koomen, 2000). Firstly, categories are knowledge stabilizers that help us organize the continuous flow of experiences. They bring 'things' in the foreground represented as knowledge objects while other 'things' are left implicit or go unnoticed. Such 'state-able' knowledge is built around clusters of experience that we perceive as being related somehow or transmitted from person to person in communities. Secondly, categories do not only stabilize knowledge, they also stabilize human relationships. Categorization is involved in processes of including and excluding persons from communities, of granting or denying access to resources and therefore to potential discrimination; labels stabilize our knowledge, but they also tend to lead to stigma. Categories are used to build one's own communities (= group) or to externally define others (= category) (Jenkins, 2000). The meaning of categories is created through interaction, represented in common languages and expressed in shared cultures. Linguistic labels provide cues that categories exist and people proceed to learn to identify them (Anderson, 1991). Without categories, knowledge and science would not exist and professionals could not communicate. Thirdly, categories are tools for building new knowledge; what previously was the object of learning becomes a tool in problem-solving processes of individuals, groups and organizations. Categorization is a way of achieving 'cognitive parsimony' which opens up space in the mind to create new knowledge (Jenkins, 2000). This is also achieved through distributing necessary knowledge between people and artefacts (Edwards, 2011; Giere, 2007). Categories used as tools for knowledge creation are often embedded in 'knowledge tools' like classification systems, theories or constructs as well as in physical tools such as computer programmes, text books and infrastructure (Bowker & Star, 1999) and guide the division of labour (Engeström, 1999; Thornton & Ocasio, 2008). Summing up, categories are 'knowledge objects' and as such the building blocks of individual's acquisition of knowledge, of sharing knowledge in communities and of knowledge creation.

The value of traditional disability categories in educational practice has been challenged on all three accounts. In a first argument put forth, 'disability' is not able to represent relevant knowledge about the situation of the child and therefore does not facilitate adequate knowledge acquisition. Already in 1985, Mehan and colleagues pointed out that disability categories do not represent any reality or create any knowledge of the child, but represent a hybrid 'knowledge object' which is distributed across persons and artefacts. According to them, disability categories should be understood as 'a function of the interaction between educator's categories, institutional machinery, and students' conduct' (Mehan, Hertweck, & Meihls, 1985, p. 164). Traditional approaches to categorization are seen as barriers in understanding disability, especially in the context of learning and instruction. This perspective is also partially reflected in the debate around medical vs. social models of disability (Peters, 2007; Trent, Artiles, & Englert, 1998): disability categories are viewed as meaningless and even harmful. Knowledge exemplified through disability categories promotes beliefs about disability that undermine teachers' sense of self-efficacy (Jordan, Lindsay, & Stanovich, 1997; Jordan, Schwartz, & McGhie-Richmond, 2009) and students' positive self-concept (Jordan & Stanovich, 2001). By focusing on disability categories which represent unchangeable impairments, information relevant for learning becomes invisible; it remains in the background rather than becoming the figure (Roth, 2001). The second line of argumentation focuses on the social nature and consequences of categorization. It was Goffman (1963) who first drew the attention to the discriminatory effect of categorizing

in human relationships. Categorization is a human activity in which both teachers and students are involved in (Ludvigsen & Mørch, 2003). The meaning of categorization is negotiated, but not always between equal social partners. Categorization can have unexpected effects on interactions as children seek to find meaning in categories used on them. Patterns of identification become established in a particular social context and are institutionalized as a conscious practice of categorizers (Jenkins, 2000, 13f.). There is overwhelming evidence that social processes influence identification of 'disability' and that people attached different value to different labels (Ho, 2004; Powell, 2006; Silvers, Wassermann, & Mahowald, 1998). Teachers' attitudes, expectations and beliefs are strongly influenced by categories (Avramidis & Norwich, 2002; Clark, 1997; Hurwitz, Elliott, & Branden, 2007; Jordan & Stanovich, 2003). There is also evidence that such attributions have a negative effect on students' self-concept, sense of competence as learners and motivation to achieve (Jordan & Stanovich, 2001; Praetorius, Greb, Lipowsky, & Gollwitzer, 2010). Wedell (2003) points out that 'special needs' is a relative concept in so far as it conceptualizes what a child does not have in the light of expectations held by others. Some scholars claim that 'disability' or 'special needs' are better understood as something representing relationships (e.g., Reindal, 2008). The third approach to criticizing disability categories focuses on their shortcomings in helping to create useful knowledge that can inform teaching and learning. These problems were already laid out by the Warnock report, claiming that pinning a single label on a child causes 'intractable problems of classification' and 'promotes confusion between a child's disability and the form of special educational needs' (Warnock, 1978, p. 42). Wilson (2000a, 2000b, 2002, 2004) has been instrumental in highlighting the shortcomings of old and new constructs as building blocks for creating meaningful knowledge. He criticizes the 'partisan conceptualisation' of categories, where specialized definitions are created that contradict normal English usage of the same terms (e.g., 'learning difficulties') and 'represent concerns or values that are ideologically questionable', like the implicit claim that any discrimination is always bad (Wilson, 2000b, p. 818). If the building blocks of knowledge mean different things to different people and their usage to create 'new knowledge' is more motivated by dogma than inquiry, then there is little hope for the future of special education and the professionalism of teachers.

Categorization is a matter of tradition and of styles of thinking; the rightness of categories depends on their fitting within a world; whether they fit with other categories and with action (Douglas, 1986). Categories are essential resources in institutionalized practice, institutions 'think' in categories, are organized around categories and act on the basis of categories (Douglas, 1986; Mäkitalo & Säljö, 2002). 'Institutional logics […] are sources of legitimacy and provide a sense of order and ontological security' (Thornton & Ocasio, 2008, p. 108). Categories mediate between professional actions and structural patterns of institutions; they are part of the system of knowing and meaning (community), of ordering resources and power (rules) as well as of justifying sanctions and defining normative practice (roles). Traditional disability categories have been created by thought collectives of physicians, psychologists and educationists (Daston, 2000; Knorr Cetina, 1999) in scientific contexts and institutional settings that today are rightly perceived as outdated. But just criticizing the 'traditional style' of generating, sharing and applying knowledge, artefacts or tools will not be enough to provide teachers with more meaningful knowledge. The suggestion is not that categories are to be avoided all together, but that they need to be able to map knowledge that facilitates teacher inquiry and action, adequate communication and is able to contribute towards building new knowledge. It is therefore critical to gain better insight about what lies 'behind' disability categories in order to develop more sophisticated ways of

representing relevant knowledge. Assessment for learning is essentially a process of building new knowledge, based on existing knowledge and the negotiation of their meaning between teacher and student. Clearly teachers cannot constantly question their knowledge and especially the categories they use when assessing students. Yet teachers have to be able to reflect on and questions definitions, concepts and theories that underlie their everyday practice. If assessment is to promote active learning, teachers and schools need to avoid categorization of students that implies passivity rather than activity and fixed traits rather than changeable states. Professionals working in educational settings will need to de-construct such disability categories and rethink as to which information is helpful in creating new knowledge that can inform their actions. There is a desperate need to gain clarity about the knowledge objects used and the way this knowledge is enacted in specific situations (Niessen, Abma, Widdershoven, & Can der Vleuten, 2008). If inclusive education is not to become an 'on-rushing river, bypassing significant islands of contradictory evidence' (Kavale & Mostert, 2003), a new knowledge culture needs to be introduced, built on more coherent and complex information systems to represent disability-related knowledge.

SEARCHING FOR MORE COMPLEX WAYS OF REPRESENTING KNOWLEDGE ON DISABILITY

Disability categories used in educational settings have slowly emerged and evolved over the years in different contexts and for different purposes. Today, they represent a confusing accumulation of 'things' that leave teachers confused and disempowered. Most teachers try hard to make sense of disability, many of them fail due to the inconsistencies and contradictions embedded in today's conceptualizations. In several studies, Jordan and colleagues (1997, 2003, 2009) established that about 25% of regular classroom teachers mainly focus on the 'fixed pathological characteristics of children' clearly beyond their expertise and about 20% take an 'interventionist approach' by focusing on how the students learn best. The other 55% of teachers held beliefs that had characteristics of both 'pathognomonic' and 'interventionist' perspectives and tended to vacillate between them. 'These "mid-range" beliefs are at times indicative of the teachers' struggles to resolve the paradox between their beliefs and the policies and procedures that favoured one or the other end of the P-I continuum' (Jordan et al., 2009, p. 538). Policies and initiatives related to improving teacher effectiveness and teaching quality (Florian & Rouse, 2001), inclusive education (Roulstone & Prideaux, 2008) or the juvenile justice system (Richardson & Powell, 2011) fail to address the contradictions presented to teachers in their everyday practice. Neither viewing diversity as normal nor sorting children into categories has proven helpful so far; 'both focusing on and ignoring difference risk creating it' (Minow, 1985, p. 160). Such dilemmas arise because of a false opposition of individual and social models (Norwich, 2002) and can be overcome by a conceptualization of disability 'as emerging from the interlocking of personal, social and circumstantial factors' (Terzi, 2008, p. 253). There is a need to dramatically rethink 'disability' and create new knowledge objects that can be integrated with today's knowledge on learning and development and therefore with teacher practice. But before such a step forward can be taken, a closer look at the knowledge structure hidden behind disability categories is needed. Without understanding the current knowledge objects and habits of thinking, there is little hope to overcome their shortcomings and develop coherent policies and practices for assessment beyond labelling. Where are traditional disability categories coming from and how can their limiting conceptualization be overcome?

For many years, one-dimensional disability categories were the only 'knowledge stabilisers'; representing bigger and smaller chunks of knowledge made available to professionals assessing children with disabilities. Different 'things' have been identified over the years as worthy of scientific attention. Through this process, scattered phenomena were amalgamated into categories (Daston, 2000, p. 6) and categories began to populate the conceptual world of disability. This resulted in a rather random collection of unconnected 'knowledge objects' from which one could select the one that seemed to fit the best. This approach to organize knowledge was used in 1893, when the first 'International List of Causes of Death' was adopted. At a time when no treatment against influenza or tuberculosis was available – but the nature of contagious diseases recognized – the motivation to prevent infections was the driving force for map, share and create knowledge. As medical knowledge evolved and more people survived illnesses, the mapping of relevant knowledge expanded to cover 'Causes of Sickness' (i.e., diseases); the first version of the 'International Classification of Diseases' (ICD) was adopted in 1901 (Moriyama, Loy, & Robb-Smith, 2011). Slowly, the simple taxonomy or nomenclature evolved into a more sophisticated classification that today is used in most countries around the world. Until recently, the ICD has remained such a first-generation classification organized along body systems. A multiaxial classification of child and adolescent psychiatric disorders (WHO, 1996) was published to overcome the conceptual shortcomings of the ICD in relation to mapping developmental and psycho-social dimensions of diseases. At present, the ICD is undergoing a major conceptual revision process based on a content model (Tu et al., 2010; Tudorache et al., 2010) able to adequately represent today's knowledge related to diseases.

The need for a separate classification to map the conceptual world of disability arose from the growing body of knowledge around long-term effects of chronic illnesses and the social consequences of disability. It became clear that the one-dimensional taxonomic principles of the ICD would not be satisfactory and that the model of the classification needed to embrace a multidimensional approach (Thuriaux, 1995). The World Health Organization published a new classification for field trial purposes (ICIDH; WHO, 1980) which was subsequently further developed to integrate medical and social perspectives of disability (International Classification of Functioning, Disability and Health [ICF]; WHO, 2001). The ICF is a second-generation classification: it provides a sophisticated tool to map the world of disability by introducing a conceptual model that clarifies the relationship between its entities (syntax). It offers definitions for all 'entities' and introduces a terminology which is consistent across the entire classification (semantics). It is conceptualized in such a way that it focuses on situations, thus linking individuals to their environments and allowing the study of practice – also in institutional settings (pragmatics). It is the most sophisticated information system to chart the knowledge related to disability available so far and despite its shortcomings provides an adequate map to navigate the complexities of disability in the context of assessment for learning and development. Conceptual work is underway to bring the International Family of Classifications (which will soon also include the International Classification of Health Interventions, ICHI) forward into the 21st century. Third-generation classifications are designed as formal ontologies which are able to represent complex knowledge and facilitate knowledge-sharing activities (Gruber, 1995). Such classifications mainly exist electronically as semantic webs. They are generated through a collective modelling activity where diverse knowledge is used and integrated to develop a complex structure (syntax) that allows for utmost clarification of the meaning of each entity (semantics) and the relationship between them. Their structure and content are modelled to suit the most important applications (pragmatics) by integrating 'knowledge of practice' (Wood, 2007). These classifications

will grow and change with the knowledge that is being represented in them. In 2015, the ICD-11 is planned to be released and discussions to lift the ICF to the level of a formal ontology have been initiated.

There is an urgent need to take the issue of knowledge representation beyond ideological debates and invest in developing new knowledge objects that can be used to create knowledge for action, guide the inquiry of teachers into the learning of students and build communities of practice that share the same language as a basis for collaborative problem-solving. Classifications are nothing more than information systems that delineate knowledge objects and provide a structure to represent, share and generate knowledge. Today, simple taxonomies and lists of disability categories are outdated, inadequate and create more problems in policy, research and practice than they are able to solve. Unfortunately, labels and nomenclatures still permeate education systems at all levels creating barriers against the advancement of inclusive education. But this is not the case because their limitations are not acknowledged, but rather because until now, little effort has been made to develop more adequate knowledge objects and tools compatible with new ways of thinking. ICF was created to provide a more sophisticated information system to map functioning and disability, allow exploration of opposing or complementary views on 'disability' and to create more meaningful knowledge able to inform practice. Its hierarchical and multidimensional structure is grounded in a bio-psycho-social understanding of human functioning and aligned to bring the situation of persons into focus – rather than their characteristics. It helps to disaggregate clusters or amalgamates of problems hidden behind labels into 'information chunks' that subsequently can be used flexibly as seems fit-for-purpose. The ICF allows the development of tools to explore multiple interactions between impairments, other aspects of functioning, personal factors such as gender, age, social background and environmental factors such as attitudes of parents and teachers or policies and services. It helps to create the knowledge that facilitates teachers' and students' inquiry into learning and development.

ASSESSMENT FOR LEARNING AS COLLABORATIVE INQUIRY

Teachers cannot develop professional assessment practices if they do not have adequate tools for reasoning about disability. To address the real life problems that children with disabilities are faced with, a shift is needed from 'principlism to pragmatism' (Fins, Miller, & Bacchetta, 1998; Miller, Fins, & Bacchetta 1996) and from ideology to practice. In *How we think*, Dewey (1910, p. 72) describes the pragmatist approach to problem-solving as a sequence of five logically distinct steps:

> (i) a felt difficulty; (ii) its location and definition; (iii) suggestion of possible solution; (iv) development by reasoning of the bearings of the suggestion; (v) further observation and experiment leading to its acceptance or rejection; that is, the conclusion of belief or disbelief.

Going back to the definition of 'assessment for learning', these steps help explore the questions of 'What?' 'Where to?' and 'How?' when assessing children for learning. They can also be found in today's models of knowledge creation (e.g., Landry, Amara, Pablos-Mendes, Shademani, & Gold, 2006): activities associated with acquiring and mapping knowledge, with creating new knowledge and destroying knowledge, and with knowledge integration, sharing and transfer. As such, 'assessment for learning' has the potential to directly support learning in teachers and students ('assessment as learning'; Earl, 2003). According to Dewey:

> observation exists at the beginning and at the end of the process: at the beginning, to determine more definitely and precisely the nature of

the difficulty to be dealt with; at the end, to test the value of some hypothetically entertained conclusion. (1910, p. 77)

Teachers able to assess for learning will be 'able to judge how far each of these steps needs to be carried in any particular situation' sometimes requiring fast conclusions for prompt and unified action, sometimes postponing decisions for a long period (Dewey, 1910, p. 78). Wherever disability-related information needs to be considered, the ICF will be able to provide the content and structure as seemed fit-for-purpose and thereby help to map the path of inquiry. For each of these five logical steps, different types of knowledge needs to be considered to be able to explore dynamics, causes, goals and means. Pre-defined formats of Individual Educational Plans (IEP) clearly will not be adequate to effectively assist teachers in these complex problem-solving processes; more flexible ways of representing information relevant for the specific situation of a child will be needed to guide assessment for learning. While the ICF is able to provide an adequate information system to map disability-related information, it in itself does not prescribe which content should be used and how it should be represented. With over 1,450 'entities' to choose from, and limitless ways of combining them, practitioners are overwhelmed when first looking at this classification. As a community of reflective practitioners they themselves will need to develop tools able to represent, integrate and create knowledge that can guide their assessment for learning practices.

At this point, all that can be achieved is a first exploration of what such tools might look like. Which tools can help teachers and students to gain an understanding of the present situation in the context of a disability? As pointed out earlier, the starting point is a perplexity or a difficulty which may reside 'in a conflict between present conditions and desired results or between an end and the means for reaching it' (Dewey, 1910, p. 72). In the classroom, this could be a boy with mental health problems disrupting the classroom or the belief that a girl with cerebral palsy will not be able to carry out the necessary activities to learn effectively. As mentioned above, disability-related information amalgamated into one category is of little help to teachers in the context of assessment for learning. Teachers have to be able to explore functioning and disabilities of the child, starting with the problems at hand, in educational contexts these are 'participation restrictions'. Participation in the ICF is defined as 'involvement in life situations' which broadly can be conceptualized at the task level (e.g., participating in reading a text, reacting to social cues), at the situation level (e.g., being involved in reading a text in the classroom, adequately interact with peers in the school yard) and at the life domain level (e.g., participating in being an active learner and sharing meaningful social relationships). 'Participation' can be understood as being engaged (behaviourally, emotionally, and cognitively) in typical routines (e.g., question-answer sequences, playing in the school yard during a break) carried out in typical settings (regular classroom, school in neighbourhood) and directed towards personally or socially meaningful goals (e.g., fulfilling one's rights or graduating from university) (European Agency for Development in Special Needs Education, 2011, p. 28). Tools that focus on participation and facilitate exploration of possible interactions between health conditions, body functions and structures, activities and participation, and environmental factors help to develop explanations that are grounded in the present situation of the child and the teacher. This will provide a meaningful starting point from which to envisage and pursue solutions. Such tools will also facilitate communication between teachers, parents and students and help initiate further observation, tests or conversations to verify or falsify hypotheses, beliefs and guesses. Observation protocols and checklists can be designed to inform all life domains of the ICF relevant for learning in a specific context.

How can teachers go about exploring where to go, which goals to aspire or which targets to set? Again, the starting point must be a felt perplexity and uncertainty as to how far teacher and student can go together, not the certainty of impairments or diseases. One of the problems of traditional disability categories is that once a child has been identified as 'disabled', teachers lose sight of educational goals, looking at the child through an 'individual gaze' rather than a 'curriculum gaze' (Dyson, 2001, p. 101). Assessment for learning should allow envisaging the child's potential in all domains of participation rather than merely in the participation domain most directly associated with impairment (Gindis, 2003; Vygotsky, 1978). Tools that help teachers and students to integrate knowledge about how impairments can affect learning or trajectories of development with knowledge on how all students achieve and reach educational goals will be instrumental in exploring 'where to go'. Universal principles such as the convention on the rights of the child or the convention on the rights of persons with disabilities are instrumental in helping teachers envisage capabilities; not only to ensure an open future to participate in all life domains (Feinberg, 2007), but also the freedom of the child to achieve whatever functionings will be valuable for him or her in the future (Sen, 2009). But universal rights 'need to be negotiated because rights are held equally by all and circumstances often make it impossible for everyone's rights to be equally implemented' (Bickenbach, 2009). The value of pursuing specific goals directly linked to eliminating or alleviating impairments must be weighed against broader curricular and developmental goals; for example, the sense of community deaf adolescents enjoy in special schools and the learning opportunities in inclusive settings needs to be both considered and weighed. The inference of and reasoning about the future is a serious matter with far-reaching consequences; it should not be left to the beliefs of teachers, but to the negotiation of all persons involved based on the explorations of the current situation of the child.

Lastly, when the 'what' and 'where to' are clarified as much as adequate for the moment, the question of the best course of action arises: How can the envisaged future be reached in the light of the current situation and aspirations of everybody involved? Again, the place to start from is uncertainty that comes with openness towards the need to change one's practice. This is the ultimate test of the teacher's inquiry into assessment for learning: the willingness to contemplate oneself as a contributing factor to disability, as an environmental factor. The current difficulties in learning as encountered by a child with a disability could hypothetically be as much caused by the teacher as by impairment or disease. The main barrier to participation may well be the teacher's ways of teaching and interacting; possibly less related to what type of instruction is provided than how it is provided (Higgins, MacArthur, & Kelly, 2009). The ICF's basic orientation on situations helps to build bridges between the situation of the child and the situation of the teacher. Truly shared pragmatic and epistemic actions of teachers and students that guide them through the 'what' and 'where to' of education will be able to inform a shared and optimised practice (Engeström, 1999, p. 67). Seeking and interpreting evidence to decide 'how best to get there', the third aspect of assessment for learning, is therefore essentially about creating opportunities to learn in the zones of proximal development. In complex settings that may spread across educational, social and health services, where today there is a desperate need to coordinate practices to ensure a coherent and comprehensible life situation, especially for vulnerable children. Professionals then need to create a 'zone of reflective capacity' (Tinsey & Lebak, 2009) by co-constructing a shared space for sense-making. Distributing cognition across people and tools enables us to accomplish cognitive and practical tasks beyond the capabilities of individuals (Putnam & Borko, 2000) and this is ultimately what assessment for learning means.

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31

Assessment for Learning and the Journey Towards Inclusion

Louise Hayward

The desire to develop assessment systems and practices that support the learning of every person, rather than to label, judge and categorize, might be regarded as the educational equivalent of the search for the Holy Grail. This chapter seeks to contribute to the journey towards that Holy Grail where assessment is a force supporting enhanced educational experiences for all.

The chapter begins by defining the territory. What understandings of assessment are more likely to enhance learning for all and how do these understandings relate to some broader theories of learning? The second section of the chapter considers the evidence base for effective assessment for learning, highlighting what has been learned in recent years about what makes the difference between assessment for learning as a potentially powerful force and assessment for learning as just one more innovation. This section concludes by identifying significant indicators of the 'spirit', rather than the 'letter' of assessment for learning, that go beyond the mere implementation of a series of strategies (Marshall & Drummond, 2006). The third section of the chapter focuses on professional learning and in particular on what matters in making assessment for learning sustainable in local, national and international learning communities. This section concludes by reflecting on the implications for learners, teachers, researchers, communities and policy-makers. Finally, the chapter reflects on the potential of 'assessment for learning' to emerge as a policy and practice that promotes high quality learning experiences for all.

ASSESSMENT TO SUPPORT LEARNING FOR ALL LEARNERS

The question of what understandings of assessment are more likely to enhance learning for all learners and how these understandings relate to broader theories of learning is complex. Assessment in education has a long history and it has been carried out for many purposes and with many audiences in mind. In schools, assessment evidence has been used for selecting and sorting.

Some schools set classes (to arrange children in different subjects according to perceived ability) or to stream and track children (to create classes of children perceived to be of similar ability who then attend all subjects in the same class). In some countries, evidence from assessment has been used to take decisions about which school a child should attend (academic or vocational; mainstream or special) and assessment evidence is used to open or close doors to further and higher education and within these sectors to open or close doors to professions and wider occupations.

In the field of special needs education, assessment plays a major role in identifying and labelling children and young people in need of additional support. The evidence base for these decisions emerges from a variety of assessment sources (for example; standardized tests, locally devised tests, national tests, behavioural

inventories, and professional judgements based on observations of day-to-day activities). The difficulties inherent in this type of assessment process are well documented. Ainscow and colleagues (Ainscow et al., 2006, p. 17) suggest that 'categorisation processes, and the practices and language associated with them, act as barriers to the development of a broader view of inclusion'. Ballard (2003, p. 8) argues that 'Categorising and naming children as "special" identifies them as different from others and different in ways that are not valued in present mainstream schools and society'. However, this process and the assessment practices associated with it are deeply embedded in educational practice. They have become professionalized and resistant to change.

The focus of this chapter is on a different purpose and approach to assessment, one that is less summative and more formative. It will explore the links between assessment and learning. 'Assessment for learning' is the term used for an approach to assessment that has become an international movement for change in education (Black & Wiliam, 2005). Although its potential to enhance learning for every person is widely recognized, realizing this is a more challenging task. However, being prepared to recognize, to understand and to deal with the assessment contradictions in our education systems are a crucial part of achieving this task.

Realizing the potential of assessment for learning is likely to depend on a number of factors. The first of these is to understand the nature of the assessment for learning approach. Assessment is commonly described as being either formative or summative as if the terms represented different kinds of assessment. In this way of thinking, formative assessment is associated with assessment in classrooms undertaken as part of day-to-day activities and summative assessment is linked to specially-designed tasks, tests or examinations that often take place at the end of a course, programme or phase of education. More recent thinking has challenged this simplistic view, arguing that formative and summative are not necessarily different kinds of assessment, but they represent different purposes for the use of assessment information (Mansell, James, & the Assessment Reform Group, 2009). Assessment for formative purposes is designed to provide feedback to learners that is 'informative'. The evidence to inform learning might come from day-to-day activities or from special tasks or tests but its purpose is to improve learning. The same information from day-to-day activities or tasks or tests can also be used for a different, summative purpose, that is, to sum up what has been learned. However, problems often occur when summative assessment information is used to serve too many purposes, e.g., to judge teachers or to take decisions about the quality of schools. When assessment information is used for public high stakes purposes it can distort learning and teaching and diminish the potential of assessment to support learning.

In attempting to define assessment for formative purposes, Black & Wiliam (2009, p. 9) argue that:

> Practice in a classroom is formative to the extent that evidence about student achievement is elicited, interpreted, and used by teachers, learners, or their peers, to make decisions about the next steps in instruction that are likely to be better, or better founded, than the decisions they would have taken in the absence of the evidence that was elicited.

There are two points to be made in relation to this claim. First, this is an assessment approach for all learners using evidence to discern achievement and to inform the next steps in learning. Assessment is being used to inform learning. The purpose is formative. There is no reference to labelling, no suggestion that assessment should seek to code or grade performance. The emphasis is on high quality evidence being used to identify and support growth points in learning. The second point worth noting is the involvement of learners and their peers. The process of identifying growth points is not one only for teachers – learners themselves and their

peers are integral to the process. Assessment for learning is a community endeavour, one that is situated most comfortably within the community of the classroom and within socio-cultural learning theories (Hayward, 2012).

These ideas have a long and distinguished pedigree. The notion of using evidence to identify and inform learning emerges from a number of diverse theories of learning including the Vygotskian concept of the zone of proximal development (Vygotsky, 1978); a set of ideas influenced significantly by Vygotsky's work with children who were deaf and blind:

> The zone of proximal development defines those functions that have not yet matured but are in the process of maturation, functions that will mature tomorrow, but are currently in an embryonic state. These functions could be termed the 'buds' or 'flowers' of development rather than the 'fruits' of development. (Vygotsky, 1978, p. 86)

It is worth reflecting on the word zone and its implication of a learning space. Grigorenko (1998) argues that this is a crucial concept, challenging any idea that learners learn in linear ways. Instead, in the space between existing knowledge and understanding, skills and attitudes learners, supported by their communities, move forwards and backwards, in and out of confidence and competence until they build new kinds of independent performance. Assessment for learning in this context is concerned with identifying these buds or flowers and to work with the learner within the classroom community to identify how buds or flowers might become fruit.

The role of the community in the process of learning is key to our understanding of assessment for learning as embedded within socio-cultural theory. Lave and Wenger (1991) argue that learning occurs in the interactions between the learner and the social environment. Learning takes place when learners engage in collective thinking about a topic or activity and their engagement alters their thinking. When analysing the implications of Vygotskian theory for pedagogy, Daniels (2003) notes the links between socio-cultural theory and activity theory. He argues that both approaches set out to develop the methodological tools to enable the investigation of the processes by which social, cultural and historical factors influence the ways in which people behave and interact. People influence or mediate forces that influence them. This model of mediation is fundamental to our understanding of and our attempts to influence learning. The pedagogy of assessment for learning is premised on these ideas.

In an attempt to develop a unifying theory to explore the inter-relationship between socio-cultural theory and activity theory in the context of assessment for learning, James (2008, p. 31) offers a range of indicators as to what assessment for learning might look like if it were embedded in socio-cultural theory. She describes these as indicators of 'third generation assessment', creating a clear link with developments in activity theory described by Engeström as third generation activity theory (Engeström, 1999). She argues that both learning and assessment would be situated, that is, carried out by the teachers and learners rather than by external bodies; the assessment of individual and group learning would be equally important; assessment would take place in natural settings with a focus on how well people, 'exercise agency in their use of resources or tools … to formulate problems, work productively and evaluate their efforts' (James, 2008 p. 31); learning outcomes would be evidenced in a range of different ways; and evaluation would be holistic and qualitative rather than fragmented and measured. James and Lewis (2012) offer two examples, one from the U.S. Coalition of Essential Schools and the other from an infant school in England where people have been attempting to live these ideas in practice. However, they suggest that:

It is not surprising that paradigm examples of a socio-cultural approach to assessment are difficult to find. There is still much to be done to find ways of bringing assessment into better alignment with some of the most powerful ideas in contemporary learning theory. (James & Lewis, 2012, p. 196)

This is then an alternative way of thinking about assessment, one that seeks not to label or to categorize learners but to use assessment as a means of informing learning. Its central purpose is to help all learners to grow, individually and as a community. This approach to assessment recognizes that learning is complex, not linear and is not susceptible to fragmentation. Curriculum (what is to be learned), pedagogy (how teaching and learning takes place) and assessment (exploring learning that has taken place and identifying future growth points) are inextricably linked and embedded in socio-cultural theories of learning. This approach to assessment recognizes the importance of the inter-relationship of the curriculum, the learner, pedagogy and the community within which learning takes place (Wyse et al., 2013). The vision for this new inclusive approach to assessment is clear and its theoretical roots are beginning to be articulated. However, the challenge of putting these ideas into practice remains significant.

ASSESSMENT FOR LEARNING - WHAT MATTERS?

The Black & Wiliam (1998) review *Assessment and classroom learning* raised the possibility that assessment for learning could be a force to improve learning. This seminal work has not only influenced governments' thinking internationally, but it has also has been welcomed by large numbers of teachers as a positive innovation. Originally, four main areas were identified as areas for reflection and development by teachers who were attempting to put the principles of assessment for learning into practice – sharing criteria, questioning, self-assessment and feedback. In a project designed to explore the implementation of these ideas, teachers from KMOFAP (Kingsford, Medway, Oxford Formative Assessment Project) (Black, Harrison, Lee, Marshall, & Wiliam, 2004), sought to create classrooms where assessment for learning would thrive. For example, ways were developed to engage learners more often in thinking. A common classroom routine involves children putting up their hands in response to a teacher's question. This leads to the involvement of those who put up their hands and the disengagement of those who do not. In this project, teachers tried a no hands up approach, choosing individual children to contribute rather than working with only those who volunteered. Another example sought to build the learning community. Rather than have the teacher as the expert who asked questions to which there was one correct answer, more open questions were used. A number of children would be invited to respond and to comment on each other's answers, building a deeper understanding of the topic, an understanding that emerged from the community.

However, as part of the United Kingdom's Economic and Social Research Council (ESRC) funded Teaching and Learning Research Programme (TLRP), Marshall and Drummond (2006) explored how teachers were putting ideas from assessment for learning into practice and they found a mixed picture. Some of the classrooms that were videoed showed teachers using strategies and techniques with little or no connection to their original purpose. The approaches used to deal with complex issues of pedagogy and assessment developed by the original teachers in the KMOFAP project had been reduced to classroom routines. Shorthand terms had been developed; for example, 'no hands up', 'fat questions' and 'basketball rather than table tennis' (young people commenting on one another's ideas rather than teacher and pupil

question and answer). The researchers described these routines as conforming to the 'letter' of assessment for learning. In other classrooms where teachers were engaged in thinking about why changes were needed and what different approaches might offer to support these changes, there had been significant changes in the culture. These classrooms were living the 'spirit' of assessment for learning. Learners were more autonomous and more engaged in their learning. Marshall and Drummond identified a common characteristic amongst teachers who lived the 'spirit' of assessment for learning. These teachers had a progressive rather than a fixed view of learners and learning:

> Neither circumstance nor the disposition of pupils were beyond change. Indeed these provided a challenge to be reflected upon and overcome. Such an attitude gives these teachers a far greater sense of agency than those who tended to see constraints in the school culture, the examination system or the ability of the pupil. (Marshall & Drummond, 2006, p. 147)

The values teachers hold about learners and learning are crucial factors in the extent to which the potential of assessment for learning can be realized.

Feedback was recognized in the Black & Wiliam (1998) study as a crucial element of assessment for learning. It was also recognized that it can be problematic. Butler's (1988) study illuminated the impact of differing kinds of feedback on different learners. Children who were confident, successful learners were able to cope with different kinds of feedback and still make progress. If they were given feedback in the form of grades they made progress, if they had feedback with grades and comments they made progress and if they were given feedback consisting of comments only, they made progress. However, there was a very different outcome for children who found learning more challenging. For these young people, progress was only sustained when feedback comprised only comments on learning without recourse to grades or levels. Despite this evidence, the belief persists that young people (and their parents) want and need feedback of this kind. For example, Hayward and colleagues (2012) found that although assessment for learning was well embedded in schools, the parallel practice of giving feedback using grades was still evident even in primary and early secondary classrooms. Although many teachers recognized this tension, some reported that grades were required by policy to be used for accountability purposes.

However, learning is a process of encouraging individual growth for children and collective growth for communities. If the curriculum is a conversation across generations then assessment is the process of discerning the extent to which learning is taking place. The socio-cultural roots of assessment for learning highlight the importance of learning as a community endeavour. Thus, the essence of learning lies in the inter-relationship between the curriculum, the learner and the collaborative pedagogy that is most likely to enhance individual and collective achievement. Assessment in this context involves working with a child to identify what s/he can do, what the most important next steps in learning might be and how progress might best be made. Feedback is central in this process. The question for assessment for learning is what would characterize good feedback for all learners?

Thinking on effective feedback has been developed extensively. Many scholars (e.g., Bangert-Drowns, Kulik, Kulik, & Morgan, 1991; Butler & Winne, 1995; Hattie & Timperley, 2007; Kluger & DeNisi, 1996; Sadler, 2010) have explored what makes the difference between feedback likely to have a positive impact on learning and feedback unlikely to support learning effectively. Feedback is a mediated process concerned to support meaning making by learners, encouraging their use of information to make connections between ideas

from feedback and the actions they take. Both external feedback, such as that offered by a teacher or peer and internal feedback, where learners reflect on their own learning matter and impact on learning (Butler & Winne, 1995). The main purpose of feedback is to support learning, to enable the learner to have a better understanding of learning priorities and how progress might best be made towards these next steps; in essence to deepen understanding of how to assess and to manage their own learning.

The quality of the feedback process has a major impact on learning. From their research review of studies on feedback using control and experimental (feedback) groups, Kluger and DeNisi (1996) reported that feedback had a powerful impact on learning. The average effect of feedback on performance was significant, but it could be positive or negative, depending on the nature of the feedback. The nature of the feedback was crucial, as the effect size was negative when feedback was not properly given. In other words, learners in the control groups (no feedback) did better than learners in the experimental (inappropriate feedback) groups. Hattie and Timperley (2007, p. 87) argue that the purpose of feedback is, 'to reduce discrepancies between current understandings/performance and a desired goal'. They identify three questions that effective feedback should address; where am I going? (Feed Up), how am I going? (Feed Back) and how will I get there? (Feed Forward).

Each of these questions works at four levels; *Task* – how well tasks are understood or carried out, *Process* – the main processes needed to understand or to perform tasks, *Self-Regulation* – self-monitoring and self-regulation of actions and *Self* – self-evaluations and comments about the learner. They conclude that feedback at task, process and self-regulated levels are inter-related. Feedback on the processing of the task, e.g., on the strategies being employed to undertake the task, are most helpful. Feedback on self-regulation strategies can be helpful if the learner interprets the feedback to mean that effort and focus will lead to progress. However, feedback that makes a judgement statement on the person rather than focusing on learning is of no value, such as, 'clever girl'. This is consistent with Dweck's (2007) analysis that praise suggesting that ability is fixed risks encouraging a view that achievement is linked to innate ability rather than effort. These ideas can lead to learners not striving for improvement and withdrawing if learning is seen as challenging.

Brookhart (2013) supports this view and proposes two dimensions to powerful feedback. High quality feedback that is likely to make a positive difference to learning, must address the substance of what is to be learned and the motivation of the learner. High quality feedback should have two effects on the learner. Following the engagement between the minds of the teacher and the learner, the learner will have a deeper understanding of where s/he is in their learning, what appropriate next steps might be and how progress might best be made. The teacher in this relationship may be an adult or it may be another young person within the learning community. Brookhart (2013) refers to this as the cognitive factor. However, this knowledge alone is insufficient. The second key dimension is the belief within the learner that learning is possible and it is within the control of the learner to take action to enhance their own learning. This is the motivational factor.

A further key indicator of the 'spirit' of assessment for learning is the extent to which learners are perceived to be partners in the process of learning working with teachers and other pupils as part of a learning community. Leitch and colleagues (2007) used Article 12 of the UN Convention on the Rights of the Child to explore pupils' participation in their own assessment. They found children and young people more than able to take part in meaningful discussions about learning, teaching and assessment and more than willing to

become engaged in such discussions if they were given real opportunities to do so in their schools and classrooms. Lundy (2007) defined real opportunity as comprising four dimensions. Children and young people should have the chance to express their views (space), their views should be facilitated (voice) they should be listened to (audience) and, as appropriate, their views should lead to action (influence). The realization in practice of these ideas might mean different things for different learners but all children and young people should have these opportunities by right.

Hayward, Boyd and Dow (2008) found learners eager to engage in the processes of learning and teaching. The young people interviewed (aged 10–11 years) identified a number of features important to their active engagement in learning. These features mirrored closely the characteristics identified by Lundy (2007). When given a facilitated opportunity to express their views, the young people engaged enthusiastically. They wanted to be listened to and they wanted their ideas to be treated seriously. They had no desire to dictate the curriculum but welcomed the opportunity to be consulted about it. They stressed the importance of choice within curricular experiences as a key factor in their motivation. Many of the learners interviewed made clear connections across curriculum, pedagogy and assessment. They recognized the need to be clear about the focus for learning, for their class and for themselves as individuals. They recognized the importance of having opportunities to undertake tasks as a group, having access both to peer and teacher explanations. They wanted to have the chance to think through what a good performance would look like and to have opportunities to reflect on their own work and the work of their peers in relation to these ideas. Many of them made reference to the fact that group members could support one another through the learning process. Finally, they wanted to be involved in the evaluation of learning, thinking through what had gone well and what might be changed in future for themselves and for future learners.

Since the original Black & Wiliam (1998) review that led to international interest in assessment for learning, our understandings of what matters in releasing the potential of assessment as a powerful force in learning has deepened. It matters that the learning environment is one where there is a belief that everyone can learn and a commitment to support every learner. It matters that teachers have the professional skills to analyse classroom practice and an ability to identify areas where practice to support assessment for learning might be enhanced using evidence from research. The nature of powerful feedback matters. Finally, it matters that the traditional roles of teachers and learners are transformed to become partners in learning with a shared agenda, to support the learning of the whole community. Classrooms in which assessment for learning is enacted are part of the journey towards inclusion.

INCLUSIVE APPROACHES TO ASSESSMENT FOR LEARNING

The previous sections of this chapter sought to define assessment for learning, examined why it is an important part of an educational landscape that seeks to value the learning of every person, where it is located theoretically and what matters in making assessment for learning a powerful driver to enhance learning for all learners. A key theme emerging was the importance of changing roles for learners and teachers and in particular the importance of engaging all learners. This section of the chapter reflects on these ideas in a different context, the relationship between innovation and change. In particular, how engagement might play out in the design of assessment for learning as a sustainable innovation using Scotland, as a case study.

There is ever-growing evidence to suggest that the relationship between the original intentions of an innovation and what ends up happening in classrooms can be tenuous (Barnes, Clarke, & Stephens, 2000; Cuban, 1994; Olson 2002; Swann & Brown, 1997). In Scotland, since the 1970s a number of policy attempts had been made to change assessment – to make it more inclusive. For example, The Dunning Report (Scottish Education Department, 1977) introduced the idea of assessment for all, where all students would have the opportunity to take courses leading to a national award and be assessed in a way that enabled them to demonstrate positive achievement. Assessment as part of learning and teaching was central in that process with subsequent implications for the professional role of the teacher. This policy drive was continued in the assessment policy of the 1990s, when even in the context of increased performativity, the Scottish Assessment 5–14 policy (Scottish Office Education Department, 1991) was premised on the centrality of classroom assessment and teachers' professional judgement of young people's strengths, areas for development and next steps. In both cases, what happened in practice bore little relationship to original policy intentions. Dunning's vision of awards for all became devalued and ideas of feedback focusing on strengths, areas for development and next steps in Assessment 5–14 became swamped by national tests in language and mathematics. Attempts to analyse why Scotland had failed to influence practices in assessment even when policy had been informed by evidence from research (Hutchinson & Hayward, 2005) showed that the innovations had been under-designed (Gardner, Harlen, Hayward, & Stobart, 2010).

Consistent with many countries internationally, Scotland had seen innovation as a process of policy production and dissemination rather than as a process of engagement involving policy, practice and research communities (Harlen & Hayward, 2010). Those responsible for the innovation had also failed to anticipate the likely effects of different policy interactions, particularly the impact of new accountability systems and the call for higher standards, on learning in classrooms.

In 2002, the Scottish Executive initiated the Assessment is for Learning programme (AifL). The design strategy for this programme drew on research evidence about assessment (Black & Wiliam, 1998) and on processes of individual and collective change, in particular the work of Fullan (1993) and Senge and Scharmer (2001). The intended AifL model (Hayward, Priestly, & Young, 2004) included three key features. The initiative should focus on real issues important for the communities who would participate in it. It should be inclusive, involving all relevant communities in its development and thus seeking to address issues that might inhibit valuable change, such as competing policy demands. The complexity of the change process should be acknowledged and simplistic models avoided, especially those that would be unlikely to achieve meaningful change, such as informing teachers of research findings and expecting them to change their practice in light of research.

By 2005, AifL had developed a very positive public profile, described by the then Education Minister as a quiet revolution in Scottish education (Henderson, 2005). External evaluations reported that learners, teachers, schools and local authorities had engaged with the ideas of assessment for learning with commitment and enthusiasm (Hallam et al., 2004; Condie, Livingston, & Seagraves, 2005). Change was taking place. Reporting on a project designed to understand why this innovation was perceived to have made a difference, Hayward and Spencer (2010) found integrity to be a key construct. Three aspects of integrity emerged from the research data:

- Educational integrity – assessment for learning was perceived as having an evidence informed focus on learning and learners' ways of working. Teachers spoke very positively about the impact of assessment for learning on self-esteem, on engagement and on attainment. Numbers of examples were reported of significant improvement in young people described by teachers as low achievers.
- Personal and professional integrity – the programme encouraged a sense of teachers themselves being learners, deepening their own professionalism. Teachers spoke of the importance of being involved in the development of ideas and strategies rather than being passive recipients. The importance of being part of learning communities, having opportunities to work with other teachers to explore and develop ideas and practices was recognized.
- Systemic integrity – assessment for learning was seen to have the commitment of the whole education system. Learners, teachers, researchers, school inspectors, policy-makers were seen all to be focused on assessment for learning as a means by which all learners' learning might be enhanced.

The inclusive approaches identified as crucial to the success of assessment for learning for pupils in classrooms were similarly important for teachers as learners within the national assessment for learning innovation. The inclusion of different communities from the beginning of the process, researchers, policy-makers, teachers and learners, although making the design of the programme more complex, had been fundamental to its success.

CONCLUSION

The journey towards the Holy Grail of a more inclusive education system as part of a more inclusive society is complex, contradictory and confusing. Assessment is all of these things. It has the potential to act as a force against inclusion, contributing to the process of labelling, categorizing and excluding learners. It can also be a force for inclusion as evidenced in the potential of assessment for learning as an inclusive policy to support the learning of all learners. The opening section of this chapter explored the idea of assessment for learning as third generation assessment embedded in socio-cultural theory. Reflecting on assessment for learning as an innovation, these same theoretical influences seem to be important considerations more generally, and are linked to teachers' learning, policy-makers' learning and researchers' learning. Collaboration, the engagement of individuals and communities in design, development and evaluation are key factors in learning, be that learning in schools and classrooms or education systems seeking to bring the aspirations of an innovation and its realization in practice into closer alignment (Hayward et al., 2012, Hayward & Hutchinson, 2013). Working in inclusive ways at systems levels seems just as important for educational success as working inclusively at school and classroom level.

These parallel experiences highlight the importance of promoting attitudinal change. Working in inclusive ways is no longer the domain only of those who hold a particular set of values but rather, pragmatically, as the only way to make real and sustainable educational progress.

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32

Self-Assessment as an 'Insider' Lens for Learning and Assessment

Roseanna Bourke and Mandia Mentis

If the ultimate goals in any educational endeavor are to enable all students to learn, develop positive self-identities and maximize their potential to realize their aspirations, then consideration needs to be given to how students develop the skills to have a meaningful role in determining what and how they learn. For some students, when faced with the dual-challenge of a disabling, and at times segregated environment, a further priority is to ensure their 'voices' and goals are heard. In other words, they need to become central to their own learning and self-assessment; the insiders in their own assessment.

In their research on 'inclusive pedagogy', Florian and Linklater (2010) examine how teachers can actively support learners to take a greater role in their learning and assessment, through a commitment to transformability, described as the 'potential for transforming learning capacity' (Hart, Dixon, Drummond, & McIntyre, 2004, p. 179). In this approach, assessment practices are integral to the realization of inclusive pedagogies, and are arguably most effective when used to support the learning of students in a range of contexts. The goals for assessment, whether for accountability or learning, need to also encapsulate motivational and empowering ideals that challenge learners to think about their own learning, and how they are situated within this learning.

In this chapter, self-assessment is foregrounded as one of the classroom practices evident when teachers are committed to transformability (Florian & Linklater, 2010). Self-assessment can transform both the individual's capacity to develop a positive self-identity and their capacity to learn. This happens simply by including students actively in their own learning and assessment process. Self-assessment supports the development of an individual's *self-determination* and *self-regulation* by becoming a self-help tool to actively encourage learners to identify their goals and aspirations, their current knowledge of their ability and skills in these areas, and their next learning steps.

Learners and learning are framed in different ways depending on the assessment lens through which learning is viewed. It is not only 'what' is looked for when assessing learning, but also 'how' this is done that needs to be considered. Given the range of models that provide different perspectives on teaching and learning, the *purpose* for assessment and the related *method* of assessment becomes paramount. The 'why assess' and 'how to assess' become crucial questions for teachers given that the assessment will result in seeing the learner and their 'learning' through different lenses.

Depending on whether assessment practices are used by teachers for a summative or formative intent, a different understanding about a student's learning emerges (Black & Wiliam, 2006). While summative and formative functions of assessment are not related to the specific assessment tool per se, it is useful to consider these functions in relation to the rationale a teacher has for an assessment. For example, summative assessment is typically considered as assessment of learning, or end-product assessment and might be used for

accountability purposes as it determines a student's level of performance on a task. On the other hand, formative assessment, often identified as assessment for learning, or *as* learning, provides students with feedback during learning to facilitate and understand further learning and influences teachers and their pedagogical practice (Black, Harrison, Lee, Marshall, & Wiliam, 2003; Black & Wiliam, 2009). In this way, it is both how the assessment process is undertaken and how the subsequent results are used that determines the summative or formative intent.

The challenge for educational systems is to ensure that learners experience assessment practices that are both motivating and meaningful for them and their learning. Irrespective of impairment, when disabling environments are removed, all children can and will learn. Furthermore, developing a learner's sense of a positive identity can be enhanced through adopting supplementary forms of assessment into everyday teaching practice. Some forms of assessment, such as narrative assessment and self-assessment, actively involve the learner both in the assessment and the *analysis* of this assessment. Given that narrative assessment and self-assessment require teachers to work with and alongside students, transformability within the classroom is encouraged as a different learner-teacher relationship emerges; one of partnership between teacher and learner (Florian & Linklater, 2010). The learners take an active role in identifying the purpose and goal for learning, measure their performance against these goals and reflect on how this contributes to their knowledge of self. A clear sense of purpose when learning, along with a strong sense of self, provides the learner with the foundation for incorporating self-assessment as a tool for learning.

Self-determination – the ability to make choices and decisions for oneself – is important for all learners, but in particular is widely seen as being a 'best-practice procedure in the education of students with disabilities' (Thoma, Nathanson, Baker, & Tamura, 2002, p. 242). As Wehmeyer and Schalock (2001) point out, teaching students to become self-sufficient citizens, who can live independently and integrate within a community, should be an expected outcome of any education system.

Self-knowledge is a core characteristic of self-determination (Thoma et al., 2002), and increased knowledge of self is achieved through self-assessment. The skills developed through self-assessment that actively contribute to building self-determination include choice-making, self-advocacy, positive perceptions of control and efficacy, self-knowledge and awareness. Self-assessment has the potential to encourage students to take more control and choice over their learning, to set goals, and be active participants in problem-solving in their own lives. In this way, self-determination skills are encouraged (Agran, Blanchard, & Wehmeyer, 2000). As Algozzine, Browder, Karvonen, Test, and Wood (2001) show, through self-assessment activities such as creating portfolios or ePortfolios, self-determination can be *taught*, can be *learnt* and can *make a difference* in the lives of individuals with disabilities.

EMERGING ASSESSMENT PRACTICES THAT INFLUENCE IDENTITY DEVELOPMENT

There are various models and practices of assessment, each of which provides us with a different perspective or different lens through which to view learning and achievement. Depending on the lens of assessment used, a different picture of the learner emerges and this contributes to the teacher's expectations for that learner, which ultimately impacts on the learner's sense of identity. If assessment becomes a process in which learners have greater control, their *own* story about learning unfolds. Narrative assessment through 'learning stories'

and the use of self-assessment are two ways for students to gain authorship of their own stories.

Narrative assessment is defined within the New Zealand context as 'an authentic account of student learning in relation to the key competencies, the learning areas, and effective pedagogy' (Ministry of Education, 2009, p. 6). This approach is used to document the student's participation in curriculum-related activities. A fundamental approach in narrative assessment, is the writing of 'learning stories' based on a range of observational and assessment data of student learning in their day-to-day interactions within the educational or social environment. Learning stories as an assessment approach has traditionally been used in early childhood settings (Carr, 2001; Cullen, Williamson, & Lepper, 2005), although learning stories have been introduced into school-based settings for students who require significant additional support.

Learning stories focus directly on the learner and their interaction with activities within the learning and teaching process. The aim of assessment shifts from one of testing isolated skills and subsequently identifying deficit areas, to one of evaluating the learner in the process of participating in the regular curriculum. More pressingly, 'learning stories reframe pessimistic narratives that take a deficit approach' (Carr, 2001, p. 103). The learning story is written by a teacher, paraprofessional, educational specialist or parent to describe the learner involved in a learning activity, and includes an account of the learner's setting and context, the people present, the learner's actions, the equipment being used, the dialogue and the outcomes associated within the participation. The 'story' can be supported with a combination of photographs, digital recordings, other assessment results, and work samples. Depending on the learner's ability, their commentary and own analysis is incorporated (Rose, Fletcher, & Goodwin, 1999), and then analyzed to see what learning dispositions are apparent and what the next steps are for the learner to develop further.

When writing and developing learning stories in the classroom, Carr (2001) refers to four D's to structure the process: *describing* (defining what learning is going on); *discussing* (talking with others about the interpretation); *documenting* (using text, pictures or work samples); and *deciding* (what to do next). These stages overlap in a dynamic process. Learning stories, as an assessment approach, document both pictorially and in text, what, where, when, and how teaching and learning is occurring. They can include views of the parents, teachers, paraprofessionals, siblings, peers and the learner. Professional language becomes more accessible, and given the attention to local context the approach is more culturally sensitive and collaborative. This approach has similarities with alternative assessment approaches being suggested in the USA for students deemed to have 'severe disabilities' (Browder, Spooner, & Bingham, 2004). Browder et al. (2004) suggest the need for assessments that are inclusive and applicable for all children, and that involve a portfolio approach that includes observations, recollections, and anecdotal notes. Both narrative assessment and 'alternative assessment' align well with self-assessment where the learner can become more actively involved in documenting and analyzing their learning through learning stories and portfolios.

The use of narrative assessment increases the involvement of teachers, paraprofessionals, parents, and students in the assessment process, and provides a mechanism for greater empowerment and self-determination in the learning process (Cullen et al., 2005). The development of strong, respectful and positive relationships between teacher and learner, between teacher and parent, and between teachers, parents and educational professionals is claimed to be a critical factor in successful formative assessment and such relationships have been shown to be enhanced through the use of learning stories (Cullen et al., 2005). This marks a move towards using an insider lens in assessment where assessments are co-constructed with learners

and outcomes are decided with the learner and their family. Student data from these alternative forms of assessment, such as narrative assessment and self-assessment, provide the way for greater self-determination for the learner, and have been shown to increase further learning opportunities (e.g., Stobart, 2008).

In this next section, different assessment paradigms are explored. Each portrays learners in specific ways. Through understanding the variations of where the learner is positioned within these models, teachers are able to determine what assessment practices best meet the needs of the learner in any given assessment occasion.

LOOKING AT LEARNING THROUGH DIFFERENT ASSESSMENT LENSES

As noted above, depending on the assessment models, paradigms and approaches used with learners, their learning is conceptualized in different ways. Standardized tests, for example, provide different information about learning when compared with information from a portfolio assessment, observations across settings, interviews with teachers, or learning stories. Given that there is no '*one-way*' to assess, the more aligned the assessment approach is with the purpose for which it is intended, the more meaningful the data. The roles of teachers, learners, parents and others vary across different assessment approaches and recognition of how each assessment approach impacts on these roles enables more relevant practice. Where the learner is located within these approaches varies; for example, in more traditional approaches such as standardized psychometric testing, the learning is assessed with a summative intent, and the learner is not the focal point; their achievement or performance is. In contrast, through the more current use of learning stories and narrative assessment, the learner is located as actively directing the assessment process, and the 'learner' is a contributing member of the assessment team. This shift shows a progression in assessment outcomes from a focus on identifying the learner's deficits to focusing on learning potential and propensity for change (Feuerstein, Feuerstein, & Falik, 2010). Within the latter model, assessment practices are broadened to encompass a complex and culturally mediated process.

This section compares different assessment approaches, including *psychometric*, *behavioral*, *developmental, cognitive*, *constructivist*, *humanist* and *ecological*. These range from quantitative and categorical orientations to more qualitative and dynamic approaches, and illustrate how learning and the learner is framed in different ways when looking through the different assessment lenses.

Standardized testing can be located within a psychometric approach that tends to foreground within-child issues and shifts the focus away from the curriculum, classroom environment or context. In this model, the learner's static knowledge and skills are tested with the aim of determining the learner's deviation from the norm. The scores show what the learner can do within the test in relation to others of a similar age. This form of assessment can provide useful age-related information, although cautions are raised over the use of intelligence tests as these produce static measures such as Intelligence Quotient (IQ) scores. There is often difficulty in translating static IQ scores into meaningful intervention practices in the classroom (Bourke & Gregory, 1996; Feuerstein, Rand, & Hoffman, 1979). The value of high-stakes accountability tests, that emphasize product or outcomes, without considering underlying cognitive processes and potential for change, has been questioned (Feuerstein et al., 2010; Sternberg, 1984, 1988), and studies show that such tests can create unintended consequences for learners' motivation (Cizek, 2005; Harlen, 2006; Wiliam, 2010). In addition, those from different cultural and language groups from which the tests were standardized can be

disadvantaged (Bevan-Brown, 2001); as Au (2009) states 'standardized tests … with their focus on individual, meritocratic achievement, serve a particular ideological purpose within the (re)production of socioeconomic inequalities' (p. 46).

While these forms of assessment have a purpose and place for educators, particularly within countries where these are mandated or used for allocation of resources, caution is needed when interpreting such results, in order that teachers' expectations arising from static testing do not become potentially limiting and disempowering for a learner (Gould, 1981). Assessment viewed through this psychometric approach can place the learner at a distance from their learning, and could have an impact on their expectations for future learning and achievement, and associated self-efficacy.

Assessment when viewed through a behavioral lens involves generating hypotheses about potential antecedents and consequences of a specified aspect of the learner's behavior. Through conducting, for example, a functional behavioral assessment (FBA), conditions are manipulated to test these hypotheses (Miller, Tansey, & Hughes, 1998). This type of assessment aims at identifying the communicative intent and function of a behavior, and the purpose it serves for the individual. Assessment can involve indirect approaches (interviews, checklists, and rating scales) or direct approaches, for example behavioral observations (Gresham, Watson, & Skinner, 2001). Within this approach, the learner and learning are externalized to the extent that observable behaviors are the focus of assessment and the internalized, less observable factors become distal.

Assessment from a developmental model approach foregrounds predetermined stages of development within the physical, cognitive and psychosocial domains of a learner's functioning. Emphasis is placed on experience in terms of how learners progress through stages in a sequential, linear and definite order. The focus of developmental assessment is to determine the learner's current level of functioning in relation to an assumed hierarchical structure of learning. Developmental charts and checklists provide the information required for assessment and teaching within this model.

While the psychometric, behavioral and developmental lenses of assessment position the learner as relatively inactive, the cognitive and constructivist approaches to assessment focus more on an interactive process of learning. Here, learning is seen to be located in the reciprocal relationships between learner and teacher and assessment involves identifying the concepts that learners have acquired through personal interactive experiences. Teaching and assessment is focused on the learners' cognitive strategies, how they self-regulate and adapt with a view to maximizing learning potential. The focus of assessment becomes one of encouraging and generating change in the child's learning and their thinking, and is process-oriented as opposed to measuring fixed outcomes. The emphasis is on the *metacognitive* aspects of learning-to-learn and assessing dynamic change (Mentis, Dunn Bernstein, & Skuy, 2009). Assessment focuses on learning that occurs through scaffolded experiences of interacting with more experienced others. Rather than the learner being assessed, the interaction between the teacher and learner is assessed. Assessment in this approach foregrounds the amount and kind of interaction or teaching that needs to occur to bring about new learning, and shows how adaptations in the dynamics of the teaching-learning dyad facilitate this progress. The salient feature of this form of assessment is the use of guided learning to determine a learner's potential for change (Feuerstein et al., 2010). Viewing assessment through this lens, the teacher and learner are central to the assessment through their specific teacher-learner interaction. Assessing the teaching and learning interaction

involves such activities as prompting, asking leading questions, modeling, and collaborative problem-solving, based on a test-teach-test approach.

The humanistic approach provides yet another lens, one that focuses on the student's social development, self-esteem, independence and interdependence. In this approach, motivation to learn and metacognitive skills involved in knowing how to learn, are given higher priority than a specific focus on measuring factual knowledge. Learning is seen as relating to the learner's motivation and self-direction, where the assessment orientation is social and affective rather than biological. There is the view that within every child there is a natural desire to learn and this approach to assessment acknowledges the student's values about learning (Howie, 1999; McMillan, 2000). Assessment practices within this approach include self-rating scales that generate awareness of individual needs, values and learning preferences. Artifacts of a student's work and their reflections on, and stories about this work, compiled in an individual portfolio, are well suited to the cognitive, constructivist and humanistic models. These artifacts, stories and narratives provide ongoing examples of the learner's performance and progress in relation to their identified learning goals and outcomes.

An ecological or systems-level approach to assessment focuses on integrated and holistic systems within which the learner is located. Ecological assessment is not undertaken with the child in isolation, but through an analysis of the whole ecology, that is, the child's complex learning and home environment. Following the theories of Bronfenbrenner (1979) and Vygotsky (1978, 1988), a *situational analysis* approach to assessment positions the learner as a participant in a unique and overlapping set of ecosystems including the home, the community, social networks and cultural groups (Mentis, Annan, & Bowler, 2009). Assessment within an ecological model involves an analysis of the interactions and relationships of the learner with others, within and across the different systems. Significantly then, involving teachers, peers and family in the assessment is emphasized. The learner becomes central and self-assessment becomes an important dimension of evaluating progress and identifying next steps in learning. Becoming aware of learners' strengths and needs, and assisting them to recognise and acknowledge these through self-assessment, leads to improving their self-es-teem and a deeper understanding of self-worth (Krause, Bochner, Duchesne, & McMaugh, 2010).

The various assessment paradigms and approaches outlined above have implications for the role the learner assumes in assessment. Standardized, developmental and behavioral approaches tend to place the learner 'outside' of the assessment with a focus on assessment *of* learning, while cognitive, constructivist, and humanistic approaches tend to place the learner 'inside' assessment with a focus on assessment *for* learning. Ecological and systemic approaches locate the learner within a cultural context and these forms of assessment are likely to be ipsative, assessing factors that bring about change with a focus *on* learning. Assessment is not neutral and identifying the differing approaches enriches an understanding of the learner and the learning that it purports to measure.

THE SELF-ASSESSMENT LENS FOR LEARNING

This section offers a different assessment lens to frame learning. It presents a conceptualization of self-assessment as assessment *of* self. In this model, the 'self' is situated or positioned at the centre of assessment and is inextricably linked with identity which emerges from assessment, and sociocultural context within which it is embedded. Assessment *of* self is thus shaped by the sociocultural context within which the

assessment takes place, which in turn shapes a developing sense of identity. Self-assessment in this model is seen as an interactive activity rather than an individual and solitary one. It is an assessment of the individual's learning, which involves understanding learning from the student's perspective but affirms that all learning is a dynamic, social and cultural process.

The three distinct but interconnected tiers (see Figure 32.1) of this model consist of a bottom tier focusing on the role of self-assessment in developing a positive identity; a middle tier that explores the experiences and conceptions learners have about self-assessment, and a top tier involving the multiple formal and informal cultural and social contexts within which this assessment of the self occurs.

The self-assessment lens for learning model acknowledges assessment as having both 'personal' and 'collective' components that together involve the individual in context learning about him/herself. Moving towards an *insider-model* of learning and assessment, as distinct from an *expert-model*, creates the opportunity to encourage greater learner self-determination. Consistent with alternative dynamic consultation models, the self-assessment model actively invites contributions from a range of sources to support the learner's self-assessment and as such, challenges the traditional expert model of assessment. This necessitates a change in the role of the teacher. For example, Hymer, Michel and Todd (2002) argue that effective consultation and assessment is complex, and requires educators to develop 'skills in active listening and dynamic questioning to a level that affirms the role of teachers as good learners (rather than knowers) in creating environments in which learning leads development' (p. 57).

Figure 32.1   The self-assessment lens for learning

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Identity

The bottom tier foregrounds the role of identity as an *outcome* of assessment, and is premised on the idea that self-assessment and development of identity are inextricably linked. Both grow through lived experiences and interaction with others within multiple and different sociocultural contexts. The interplay between the individual and social aspects of identity has significance for all learners – but in particular for students who require additional support, because they often become excluded from certain learning contexts as a result of lowered expectations about their learning needs (Florian & Linklater, 2010). Ironically, this then limits their opportunities for further learning, as well as identity development.

To involve learners actively in their own assessment process, their goals, aspirations and routes towards achievement need to be acknowledged as a starting point. This involves clarifying what achievement means, and what is valued for each learner. Given the possible physical, intellectual or social challenges faced by some students, they are often in the best position to determine what learning they most value, and how they determine when they have learned. Self-assessment offers a practical solution in involving the learner to think about the task, their motivation and ability to undertake the task, and determining their progression along the way. Accordingly, teachers must be prepared to engage with a range of pedagogical practices, and this could mean changing an aspect of their own identity as a teacher (Black et al., 2003; Florian & Linklater, 2010). Learning stories are a vehicle to illustrate student learning outside of a structured assessment system. For teachers who argue that 'students don't fit into boxes', learning stories, as an assessment approach, enables them to develop a holistic picture of the child's learning, across time and contexts. In effect, the students 'create their own box'.

While students require support and frameworks to self-assess, they can be actively encouraged to do so in several ways: (1) taking an active role in determining their goals and aspirations, (2) choosing artifacts from their work to highlight in their learning stories, and (3) being asked to comment on what they are doing and why, all within their day-to-day activities. Learners can be involved in their assessments through discussing their learning stories with parents, siblings, teachers, and peers, and by examining and explaining what they have learned.

Self-assessment

The middle tier of the self-assessment model locates the 'self' at the centre of assessment and posits that assessment *of* self can support a positive and realistic sense of self-identity (bottom tier) within authentic, meaningful sociocultural contexts (top tier). In other words, the learner situates him or herself centrally within the assessment process, thereby becoming the 'insider' to their own assessment.

The more motivated the students feel towards an activity that relates to their own aspirations for learning, the greater the likelihood their involvement, commitment, and responsibility for their learning will increase (Black & Wiliam, 1998; Weeden, Winter, & Broadfoot, 2002). Therefore, self-assessment implicitly raises pupil status because the students' opinions are valued (Broadfoot, 1979). This in turn improves their reflective thinking skills (Kusnic & Finley, 1993) and ability to apply metacognitive strategies (Pramling, 1996) in their learning. As well as increasing student motivation for learning (Harlen, 2007), self-assessment practices have

been attributed to students developing a greater sense of control and ownership for their learning (Boud, 2007; Tan, 2007).

Learning stories as a vehicle for assessing the self can contribute in particularly rewarding ways for learners with complex educational needs. For these learners, self-assessment using narrative assessment and learning stories can play a particularly powerful role in giving them agency and rights to actively shape their own learning. Using this approach, students can contribute to decisions about what learning to assess and how that learning should be recorded, narrated and reported.

Traditional, standardized methods of assessment often have less relevance for learners who require significant support in their learning, because much of the learner's real, everyday learning goes unnoticed or unrecognized. To capture the everyday, authentic increments in learning, learning stories are useful as these document learners' progress in the 'moment' of learning. The subsequent analysis of that learning, helps to inform next steps in learning in a positive, inclusive, useful and timely way. Learning stories enable a window into the immediate world of the learner and those with whom they learn, and links learning across different contexts. For learners who might otherwise be assessed as being continually low functioning for their age on standardized assessments, learning stories affirm ipsative change. This assessment of progress against previous performance reinforces the learner's sense of confidence and competence and in turn raises expectations that others have of them.

The positive aspects of using learning stories as a vehicle for assessment-of-self was experienced by teachers who were involved in a New Zealand-based project using narrative assessment with learners who require significant additional support in the classroom. Teachers in this initiative commented that learning stories 'have the potential to alter perceptions about disabled students (as) stories show them to be successful achievers' (Ministry of Education, 2009, p. 30). This shift in perceptions of the learner impacted on the teachers' perceptions of teaching as teachers found that 'analysis and future planning of learning stories challenge teachers to focus on the teaching process – the stories demand reflexivity' (Ministry of Education, 2009, p. 30). This in turn demanded a new way of thinking about student's learning because 'assessment through learning stories is personal, meaningful, respectful and directive – such a positive way to describe learning' (Ministry of Education, 2009, p. 30).

Teachers who used learning stories reported increased motivation and self-esteem expressed by the child and attributed this to 'the students recognizing that the teachers valued them by giving them time, by listening to their views, by describing and recording the learning story and then showing and discussing the subsequent learning story with them' (Bourke, Mentis, & Todd, 2011, p. 416).

Thus self-assessment or assessment of self, where the learner is positioned at the centre of the process, shifts perceptions and practices around teaching and learning. Optimism and confidence is strengthened both for the learner and the teacher. This results in a positive sense of self for the learner and a confidence for teachers to use the authentic contexts of the classroom to engage in meaningful assessment for learning.

Sociocultural context

Pryor and Crossouard's (2008) sociocultural model reinforces the importance of the relationship between teacher and student in assessment. Through this partnership, self-assessment within a sociocultural model

must build on the student's positive sense of self. Therefore, 'identities' as the bottom tier of the self-assessment model needs to build up to the inter-subjectivity of a relationship (middle tier). Through self-assessment in learning stories or narrative assessment, 'the relationship' encompasses a conversation between several people; the student, teacher, parents, teacher-aide, specialist teachers, ministry personnel and others. This leads to the top tier of the model, which involves the student self-assessing, learning through relationships across contexts.

As a relational, dynamic conception, self-assessment is not an individual, isolated or singular activity. It occurs within a context, through interactions with others and is multifaceted. Mead (1934) argued that when people adjust to different environments or communities, they change themselves and, in doing so, they ultimately influence the community in which they live, which in turn changes. Assessment and learning are reciprocal processes and both are embedded within the learner's sociocultural environment.

Children and young people need the support from others during the self-assessment process, to know what and how they learn. This involves taking the advantage of accessing the contributions of teachers, peers and specialists in multiple settings. While an individual's sense of self and self-knowledge influences how they assess the outcomes of their learning, feedback from their peers and from adults shape their thinking, and provides a mediating influence. If every context is a learning context, and every setting ultimately serves an educational purpose, then it is logical that every setting also becomes an important *assessment* context.

Traditionally educators do not actively hear the voice of the child when discussing and planning their assessment and learning. Having an understanding of how children self-assess and develop self-knowledge will provide a framework for educators to listen to the learner. When children are asked about their experiences of knowing *when* and *how* they have learned, the way these learners use self-knowledge and self-assessment to evaluate their learning outcomes and set future learning goals is evident (Bourke, 2010). Many young learners require their knowledge of 'self' to be mediated by others. This extrinsic information is the first step towards learners actively shaping a sense of their self. Next, the child starts to focus on the 'amount' of learning – the 'how much' in relation to either their own learning or others. This feedback during the early years of schooling is usually in the form of verbal feedback and some identifier such as a star or stamp or sticker, and later is quantified in terms of a mark or grade. Through this process, learners develop awareness that certain learning outcomes have importance and are given priority through the school assessment system.

However, as learners become more confident in their own sense of self, their own identity, self-assessment moves to include more intrinsic elements where instead of using criteria externally set, the learner identifies internal learning goals. Through outlining their learning outcomes and goals, the student has a set direction, purpose and value in these goals, and is motivated to persevere (Bourke, 2010). Often the outcomes are identified and measured differently to those specified by a teacher, simply because the learner has a greater understanding of themselves in relation to the assigned task. This conception of self-assessment relies on the learner's own sense of self-identity, or their own perceptions of their self. Therefore, what is important to them becomes the value assigned to their learning. Until learners see the relevance and connect meaning to the tasks they perform, neither learning nor self-assessment is likely to take priority for the learner. Evaluating the content of learning becomes the final stage of self-assessment and learners will actively engage in their learning when the content is seen as highly desirable, necessary or interesting. In this way, self-assessment is intrinsically linked with both the content within a context and the learner's self-knowledge in relation to that

task and context.

CONCLUSION

The belief that all children can, and will, learn, and can self-assess, is central to creating rich learning experiences and opportunities. When becoming 'insiders' to their own learning and assessment, learners can provide potentially rich information about how, when and why they learn. This can be achieved by providing learners with experiences in narrative assessment and self-assessment. Self-assessment strategies teach learners to identify criteria for assessment and associated measures of success, which can then contribute actively in any related Individual Educational Planning process. Though developing intrinsic self-assessment skills within a variety of settings, learners become more knowledgeable and confident about their ability to succeed in their learning across multiple settings.

Self-assessment is a deliberate, intentional, and supportive process to facilitate student learning, and to acknowledge the learner as taking a key role in his or her own assessment and learning. Furthermore, it legitimizes the multiple contexts the learner experiences and challenges the notion that school-based education is the only form of learning that can be measured or assessed. Self-determination is an important outcome as it enables learners to take an active part in decisions about themselves, their futures and their goals.

The assessment process is critically important because it means 'a number of pupils are judged to be different from others' (Isaksson, Lindqvist, & Bergström, 2010, p. 136). This serves as the impetus to use diverse assessment practices to ensure any difference is celebrated and 'valued'. This chapter has outlined a way to meet this challenge. By incorporating self-assessment into an assessment agenda, teachers can enable and include the learner in productive and transformative ways, thus allowing the learner to take charge of their learning.

Self-assessment within authentic contexts, reminiscent of Pryor and Crossouard's (2008) divergent assessment, is about learning-to-learn and as such breaks down the barrier between assessment and learning. Teachers' commitment to transformability within the classroom in enabling all students to learn (Florian & Linklater, 2010), involves partnership with others and can be done by demonstrating learning through using portfolios, ePortfolios, narratives, digital narratives, self-assessment, peer assessment, concept maps, graphic organizers, journals, simulations and demonstrations. Self-assessment, within an authentic assessment framework such as learning stories, enables teachers, students and parents to examine learning through their multiple perspectives and across different contexts, thus providing the basis for a new 'insider' lens for learning.

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33

Dynamic Assessment and Cognitive Intervention

Alex Kozulin

Dynamic assessment (DA) is a rapidly growing trend in psychological, educational and language research and practice (Haywood & Lidz, 2007; Sternberg & Grigorenko, 2002). The key element of all DA approaches is the belief that evaluation of individual learning potential is no less important than testing the current performance level of a student and that the best way of doing this is to insert learning or/and interactive elements into the assessment procedure. One of the initial goals of the DA was to demonstrate that reliance on static intelligence or achievement tests often results in the erroneous placement of children with high learning potential but low current performance levels into special educational settings that do not correspond to their true abilities and needs. DA helps to formulate specific recommendations for cognitive intervention aimed at improving individual's learning strategies and cognitive skills. Ideologically, DA is close to the Response to Intervention (RTI) approach (see the chapter by Vaughn, Wanzek, & Denton in this volume) and Formative Assessment (Black & Wiliam, 2009).

THE CONCEPT OF THE ZONE OF PROXIMAL DEVELOPMENT (ZPD)

Vygotsky's notion of the ZPD provides a theoretical basis for a number of approaches united under the name of DA. Though it has become almost a cliché to use the notion of the ZPD as a starting point of discussion about DA, the use of this notion is complicated by the fact that Vygotsky (1935/2011) and Vygotsky (1934/2012) presented the ZPD in three different contexts: developmental, educational, and directly addressing the issue of assessment.

In the developmental context, the ZPD appears as a principle that helps to explain the dynamics of child development. Vygotsky (1935/2011) argued that typical psychological studies focus only on those psychological functions that have already fully matured and as such are displayed by children in their independent activity. By suggesting an analogy with a gardener who is expected to foresee the development of his crop already at the bud and flower stage, Vygotsky pointed out the need to study those emergent mental functions that have not yet matured. The way to identify these emergent functions is to engage the child in joint activity with adults. In the context of such joint activity, the child reveals some of the functions that are not mature enough for independent performance, but are already 'in the pipeline'. This model is based on the assumption that children's functions first appear in the joint activities of children and adults and only then are they internalized and transformed to become inner mental functions.

In the educational context, the notion of the ZPD reflects Vygotsky's belief that education is a source of the child's development rather than just a supplier of content knowledge that can be absorbed by the child with the help of already existent psychological functions. Such an interpretation radically changes the typical relationships between education and development on the one hand, and psychology and pedagogy on the

other. It is remarkable that this idea of Vygotsky still remains too radical for educational establishment 75 years after it was first proposed. Educators for the most part still consider school curricula in terms of their informational content and specific operations (addition, subtraction, division, etc.) rather than their impact on the child's cognitive development. Developmental psychologists, in turn, continue to inquire about psychological processes (perception, memory, attention, etc.) and their age-related development without any serious reference to children's schooling. By radically changing the relationships between education and development, Vygotsky assigned to the ZPD the role of a theoretical construct that should determine the complexity of school curricula at each grade. For education to be an 'engine' of development it should be ahead of the current performance of a given student by the 'distance' equal to his or her ZPD. Vygotsky warned against a simplistic interpretation of the relationship between education and development as two parallel curves with a constant distance between them. In his opinion, different school subjects may have a different impact on child development at different ages. Thus curriculum should be closely analyzed for its development-generating potential.

One of the better elaborated uses of the notion of the ZPD in educational contexts can be found in Vygotsky's (2012) discussion of the relationship between everyday and academic concepts that 'meet' in the classroom. The ZPD is identified as a metaphorical 'space' where experientially-rich but unsystematic and often purely intuitive everyday concepts of students interact with academic concepts provided by teachers. It is not only the content of everyday concepts that is different from academic concepts, but also their organization. Intuitive concepts shaped by everyday experience are stored in the child's mind episodically and functionally rather than semantically and systematically; they also often remain un-reflected and even semi-unconscious. Academic concepts, on the other hand, are consciously constructed, systematic, reflective, and based on the common academic rather than personal experience. Academic concepts, however, are too abstractive, and poorly related to children's experience. Teaching in the ZPD thus means identifying such a conceptual space where abstractive but systematically-organized academic concepts can start interacting with experientially-rich but often scientifically-incorrect intuitive concepts of students. As a result of such an interaction, academic concepts acquire experiential richness while everyday concepts are transformed and liberated from their intuitive basis.

Typically-developing children usually have a rich collection of everyday concepts based on their first-hand experience with objects, events and people. Children with SEN often have a more restricted range of these concepts. This may be a result of sensory problems (blind and visually-impaired children), motor problems (children with cerebral palsy), or lack of access to or comprehension of some everyday events (children with intellectual disability). In educational work with these children, academic concepts play two roles: Organization and transformation of existent everyday concepts, but also providing the basis for systematic accumulation of everyday experience that was not spontaneously gained.

Finally, Vygotsky also discussed the notion of the ZPD as directly related to the task of student assessment. The main point is that standard assessment techniques should be complemented by the evaluation of students' ZPD, operationalized as performance under conditions of assisted learning or joint activity with an adult:

> Let us take the simplest case from our studies that can serve as a prototype of the entire problem. I studied two children when they entered school. Both were 10 years old, and both had a mental age of 8 years. Can I say that they are intellectually equal? Certainly! What does this mean? This means that they are capable of solving problems that correspond to the norm of 8-year-old children. Once this study is over, one

can imagine that the future mental development of these children during their school years will be the same because it depends on their intelligence. Of course it may depend on some other factors. For example, one child might be sick for half a year while the second one attends school all the time without interruption. But apart from such cases the future of these children is expected to be similar. Now, let us imagine that instead of stopping my study when I obtain the aforementioned result, I start it again. Both children prove to be of a mental age of 8 because they are capable of solving tasks attuned to 8-year-olds but cannot solve more complex tasks. I would then demonstrate to them different methods of problem solving. Different researchers and authors use different methods of demonstration. Some demonstrate a complete problem-solving process and then ask the child to repeat it, or start the solution and then ask the child to continue, or ask leading questions. In a word, in different ways, you prompt the child to solve the problem with your help. Under such conditions, it turns out that the first child is capable of solving tasks up to the level typical of a 12-year-old, whereas the second child up to the level of a 9-year-old. Can one say after this additional investigation that these children are intellectually equal? (Vygotsky, 1935/2011, pp. 203–204)

The 'technique' of ZPD assessment sketched by Vygotsky included modeling, starting the task, providing hints, etc. For better understanding of the later development of DA approaches, it is important to remember that Vygotsky merely mentioned these possible techniques, but never produced anything approaching a ZPD assessment manual.

Vygotsky also made an educationally-important claim regarding the relationship between ZPD assessment and what he called 'relative school achievement'. In his view the absolute level of school achievement as reflected in exam scores should be complemented by an estimate of relative achievement, in other words the progress made by a given student. Some students may still have a relatively poor absolute performance level but show an impressive change relative to their starting point. Other students may remain at the top of the class but gain very little in the course of learning. Vygotsky specifically pointed to the case of children with special needs and 'failing' students, whose performance in terms of standard exam scores may remain very low, but who have made significant progress relative to their previous performance. One may see here a precursor of what today is called the 'Response to Intervention' approach:

Only children who systematically display not only absolute, but also relative underachievement can be transferred to special schools. A student with absolute underachievement who shows a certain level of relative achievement (relative to the class) needs changed conditions within his school, but should not be transferred from it. (Vygotsky, 1935/2011, p. 202)

As can be gleaned from the above analysis, different aspects of the ZPD allow for a wide range of elaborations and applications. Actually many of these possibilities can be discerned in current DA practices, some of them targeting general cognitive functions and their modifiability while others assess students' learning potential in specific curricular areas.

STATIC VS. DYNAMIC ASSESSMENT

There are several features that differentiate DA from typical 'static' assessment techniques, as displayed in Table 33.1.

DA of cognitive processes

The DA approach demonstrated that reliance on static intelligence or achievement tests often results in the erroneous placement of children with SEN into special educational settings that do not correspond to their true abilities and needs (Haywood & Lidz, 2007). This proved to be particularly true for immigrant and minority students whose low static test performance often reflected cultural difference rather than cognitive or

learning disability (Feuerstein, Rand, & Hoffman, 1979). In addition to evaluating students' cognitive modifiability and learning potential at a given movement, DA was also used for evaluation of the effectiveness of long-term educational intervention programs. While comparison of static pre- and post-program test results helps to identify those skills that have been successfully acquired and internalized by students, the use of DA also allows us to identify the change in students' ability of 'learning how to learn'. This application appears to be particularly important for students defined as poor learners (Tzuriel, 2011).

Table 33.1 The principles of static and dynamic assessment

Typical static assessment	Dynamic assessment
• Focuses on current performance assumed to be predictive also of an individual's future performance. It is implicitly assumed that intellectual functioning and learning ability are stable and resistant to significant change. • Excludes learning from the assessment procedure. • Emphasizes the product (assessment score) rather than the process (how this score has been achieved). • The results of static assessment are used predominantly for classification of students and selection of educational settings rather than development of specific educational intervention strategies.	• Assumes that 'static' (unassisted) task performance reveals only a fraction of students' cognitive and learning skills. • Aims at evaluating students' modifiability or learning potential rather than their current performance level. • Includes a learning phase as an integral element of the assessment procedure. • Focuses on learning processes rather than products of learning. • The results of DA are used predominantly for recommendations regarding those cognitive and learning functions that should be selected for targeted cognitive intervention.

Currently available DA methods range from highly interactive assessments during which mediation provided by the assessor is constantly adjusted to the needs of the student, to more structured procedures where the learning phase is composed of a preset sequence of cues provided to students in response to their answers. In some DA approaches, such as Feuerstein's 'Learning Potential Assessment Device', learning interaction is based on an elaborate system of mediated learning criteria enacted only by specially-trained mediators. In other DA approaches, the sequence of prompts is rather rigidly built into the assessment procedure so that it can be administered by a computer program. DA of cognitive processes focuses on such domains as perception, attention, memory, and problem-solving. Many of the tasks used in DA are dynamic modifications of well-known standard tests such as Raven Progressive Matrices, Ray-Osterreich Complex Figure Drawing Test, Kohs Block Design Test, and so on (Haywood & Lidz, 2007).

Using more scripted DA procedures, students can be identified as 'high scorers', 'learners', and 'non-learners'. Those students whose performance was already sufficiently high at the static component of DA are defined as 'high scorers'; those whose initial performance was low but improved significantly after the learning/interaction experience are defined as 'learners', while those who failed to benefit from the learning/interaction are defined as 'non-learners'. Educational intervention strategies for these three sub-groups may thus be different. For 'high scorers', more challenging educational goals can be set; for 'learners', educational intervention emphasizes strategies for turning their good learning potential into better independent performance, while for 'non-learners' the main emphasis is on teaching them how to benefit from cues, models, and other forms of assistance provided by teachers, in other words on 'learning how to learn' strategies.

DA tasks have been developed for a full range of ages and conditions, from pre-school age to young adults

and from students with serious cognitive problems to children with normative development (Haywood & Lidz, 2007; Tzuriel, 2001). Moreover, the DA approach that started in educational psychology has been extended to the field of occupational therapy where a system of DA tasks was developed, including orientation, spatial perception, praxis, visual-motor construction and thinking operations in everyday contexts (Katz, Golstand, Bar-Ilan, & Parush, 2007).

DA in specific learning areas

Historically, DA started as an alternative to static intelligence tests and as such focused on such general cognitive processes as perception, memory, attention, and reasoning. More recently, DA methodology is beginning to be used for assessment of language, reading, and mathematical problem-solving. One of the reasons for an early emphasis on general cognitive functions was that their 'fluid' nature makes them more amenable to change. Mental functions associated with language and curricular knowledge were considered 'crystallized', less amenable to change, and dependent on the specific knowledge of a given student. While DA of cognitive functions can use the same battery of cognitive tasks for a wide range of learners, the curricular DA requires different sets of tasks corresponding to students' knowledge-base in different subjects. These difficulties notwithstanding, available research indicates that DA in specific learning areas allows for more precise identification of students' learning needs, and as a consequence, more targeted intervention (Hasson, Dodd, & Botting, 2012; Hasson & Joffe, 2007).

DA of language was prompted by recognition that when certain cues and prompts are provided by teachers, students' language development potential may reflect different abilities than those demonstrated during unassisted language performance. In addition, DA of language promised to help in resolving a vexatious problem of identifying the cases of 'genuine' language impairment among language minority children. Peña and Gilam (2000) used a DA procedure with minority (Hispanic and African American) children who experienced difficulties with verbal labeling. In this procedure, static pre- and post-tests used the *Expressive One-word Picture Vocabulary Test* (EOWPVT). The learning phase included two 20–30-minute sessions with stories, classification tasks and puzzles that promoted labeling strategies. While all children experienced labeling difficulties at the pre-test, some of them made significant progress between pre- and post-test, while the change in other children was minimal. Peña and Gilam suggested that DA was able to distinguish between those children whose difficulty with labeling reflected their cultural difference, and those who in addition experienced language problems unrelated to cultural aspects.

The need for more accurate identification of children's language needs extends beyond the issue of cultural difference. Typically-developing children and children with language impairment were asked to tell a story based on a wordless picture book (Peña et al., 2006). Then, two 30-minute intervention sessions were given. These sessions served to teach story components, such as setting, character information, temporal order of events, causal relationships and episode structures. Assessors used puppets and background pictures to demonstrate how a complete story can be told. After that a story-telling post-test was given, based on a different picture book of a similar type and complexity. The results indicated that typically-developing children on average made greater gains in the quality of their narrative from pre- to post-test. However, the pre-test scores of both typical and language-impaired children were not a good predictor of their post-test

scores. In other words, a short learning experience had a significant impact on children's story-telling performance. Moreover, it was shown that the pre-test scores alone were insufficient for accurately classifying children into those with learning impairment and those without. On the other hand the post-test scores together with assessors' evaluation of children's responses to intervention produced a perfect classification without positive or negative errors.

DA may also provide additional information about language development in children with serious intellectual challenges, such as those with Down syndrome. Alony and Kozulin (2007) using the dynamic version of the *Peabody Picture Vocabulary Test* showed that sometimes even a minimal mediation in the form of a 'focusing' remark by an assessor improves the receptive language performance of children with Down syndrome. Cross-sectional analysis of the developmental trends indicated that when static test results were used, the trend is flat – there was little age-related progress in receptive language performance. However, when DA results were used, the trend was closer to that of children with typical development. In other words, while unassisted receptive language performance of children with Down syndrome shows little age-related improvement, their language potential revealed during DA demonstrates a clear age-related progress.

The DA approach has also been used for the assessment of reading both in first and second language (Poehner, 2008). As far as reading is concerned, it is impossible not to compare the DA approach to that of RTI (see the chapter by Vaughn, Wanzek, & Denton, in this volume). RTI and DA have one conceptual element in common – the child's abilities and needs are evaluated dynamically, through closely monitoring children's response to a certain type of learning intervention (Wagner & Compton, 2011). At the same time, DA of reading, as with any form of DA, focuses on the cognitive and metacognitive strategies and skills of the child, rather than on the child's attainment of specific reading benchmarks. The cognitive element seems to be, at least at the present stage, missing from the RTI model. RTI is primarily a method for better identification of children who need special educational services, but it does not provide recommendations on how such services should be shaped. DA, on the contrary, aims at identifying those cognitive interventions that can help children to enhance their learning abilities. Finally, DA and RTI work on a different time-scale. In DA short-term intervention is included into the assessment procedure itself, after which recommendations are made regarding the required long-term intervention. RTI relies on periodic static assessments with relatively prolonged intervention (weeks or months) between them (Grigorenko, 2009; Lidz & Peña, 2009).

Critique of DA

Two types of critique of DA can be distinguished – external and internal. External critique has been developed by the authors who question the need, value or efficiency of DA. Internal critique is that of researchers and practitioners who use DA but are dissatisfied with the level of its current methodological elaboration. The more radical of the external critics argue that because students' learning ability and their cognitive performance in standard tests are highly correlated there is no reason to use any additional DA tests that may be problematic in terms of their psychometric properties. They claim that the inclusion of a learning/interactive phase damages the reliability and validity of testing and as such is unwelcome from the psychometric point of view. In the more flexible of DA procedures, the results may differ significantly depending on the skill of the mediator and the quality of interaction, elements that are difficult to control.

The less severe of the external critics acknowledge the potential usefulness of DA, but question its practicality. The inclusion of the learning/interaction phase may significantly increase the time of assessment, while under current conditions in the educational field specialists are hard-pressed to shorten the time allocated to the assessment of individual students (Karpov and Tzuriel, 2009). In spite of its greater affinity with the principles of inclusive education, DA remains a 'sub-dominant' method in the field sill dominated by static assessment techniques (Lebeer, 2012).

Internal critique focuses on still unresolved theoretical and methodological problems of DA. Some DA approaches aim at discovering the signs of cognitive modifiability, understood as a qualitative change in the level of learners' performance across a wide range of tasks. One example of such a change would be a transition from trial-and-error to strategy-based problem-solving in tasks of different content and modality. Other DA approaches, however, focus on the ability of learners to benefit from cues, models, or prompts in solving problems of a specific nature (e.g., sequencing, analogy problems, classification, etc.). In the latter case, one may talk about quantitative assessment of students' learning potential in a given area, rather than their cognitive modifiability. Different approaches, however, are subsumed under the general umbrella term of DA and their particular goals and methodologies are rarely compared or elaborated (Kozulin, 2011). Internal critique also acknowledges the need to address the issue of reliability and validity, without, however, abandoning the dynamic nature of DA procedures. Finally, the question remains open as to how and in which context DA assessors should be trained to ensure the high quality of DA work.

COGNITIVE INTERVENTION

The concept of cognitive intervention is based on the assumption that cognitive skills and strategies are not inherent and immutable but flexible and learnable. It is further argued that many students including students with SEN cannot spontaneously extract cognitive strategies and skills from their learning experience with curricular materials, but need to study them in a systematic way. Cognitive intervention targets both cognitive and metacognitive processes, such as gathering and analyzing data, identifying the problem, selecting problem-solving strategies, planning, monitoring the execution process, and evaluating the result. In addition to skills, cognitive interventions also target the development of students' cognitive dispositions (e.g., open-mindedness, perseverance, etc.) and reflective conceptual understanding (Harpaz, 2007). National curricula in the majority of industrial countries include the development of students' cognitive skills into their lists of educational objectives (e.g., Department for Education and Skills, 2005).

There are three main types of cognitive intervention: 1) Interventions based on the application of specially-developed systems of cognitive tasks. These interventions usually require separate lessons dedicated exclusively to a cognitive program; 2) Interventions based on the infusion of cognitive principles and strategies into curricular lessons; 3) Curricular programs (in science, math, etc.) redesigned in such a way that their materials and pedagogy enhance students' general cognitive dispositions and skills (see McGuinness, 2005).

Probably the most important question in the field of cognitive education is the question of generalizability and transfer of cognitive strategies and skills. For a cognitive strategy or skill to be effective it should be general enough to be applicable to a wide range of learning and problem-solving situations. At the same time, the generic nature of such strategies and skills make them less specific, and students often do not see their

relevance for particular school subjects and activities. Programs based on teaching specially-designed cognitive tasks usually aim at the development of generic cognitive strategies and skills, which, at least in theory, can then be used by students in different curricular areas and everyday life situations. Such generic skills, however, may remain too abstract for students, who tend to associate them exclusively with cognitive lessons and fail to transfer them to other learning tasks. On the other hand, attempts to infuse a cognitive approach into content lessons face an opposite challenge. When cognitive skills are too closely linked to specific curricular topics and materials they lack cognitive generality and become content-dependent. That is why finding a proper balance between generality and specificity constitutes one of the main goals of cognitive education.

Cognitive tasks programs

Cognitive programs that use specially-designed cognitive tasks may focus on one key cognitive function or attempt at developing a broad range of functions. The Klauer program (1999 2002) for the development of inductive reasoning gives us a good example of a program aimed at developing one key function. Klauer argued that because school learning to a great extent depends on inductive reasoning, this cognitive function should become the target of systematic cognitive intervention. In his opinion, six basic kinds of inductive reasoning problems can be distinguished: Classification problems include generalization (class formation and class expansion), discrimination (class exclusion), and cross-classification, relationships problems including recognition (analogies, series), discrimination (disrupted series), and system formation (matrices). There are three Klauer Inductive Reasoning programs aimed at children of different ages including students with learning disabilities and low IQ. The tasks use pictures of objects, situations and symbols. Only programs intended for older children include texts and require reading. Each cognitive program consists of 120 items with a recommendation to teach them within 10 sessions. If two sessions are given per week, the entire program can take about five weeks. Klauer (2002) reported about 60 experiments conducted with the aim of evaluating the effectiveness of the program. The results for students with SEN showed effect sizes above 0.6 as measured by intelligence tests of inductive reasoning (such as Raven Progressive Matrices). What probably is more important, students with SEN who received inductive reasoning training significantly outperformed the comparison groups in learning school subjects that required inductive reasoning.

Feuerstein's *Instrumental Enrichment* program provides us with an example of a program that targets a very broad range of cognitive and learning functions. The program comprises about 340 pages of paper-and-pencil tasks covering such domains as analytic perception, comparison, classification, temporal, and spatial relations, progressions, syllogistic reasoning, and so on. Its full implementation requires no less than two academic years with two to three sessions per week (Feuerstein, Rand, Hoffman, & Miller, 1980). Originally developed for underachieving immigrant students, the program proved to be popular for implementation with various populations of learners ranging from children with learning disabilities to regular and gifted students and various clinical populations (see Kozulin, 2000). The main goal of the program is to enhance the cognitive modifiability of recipients. This main goal is further elaborated in a series of sub-goals that include correcting underdeveloped or deficient cognitive functions, enriching students' cognitive concepts and operations, enhancing motivation, and developing metacognition and reflective reasoning. Teachers or therapists who intend to implement this program are expected to attend special training workshops. The central element of

these workshops is the acquisition and internalization of the technique of mediated learning that transforms educators from providers of specific curricular information into mediators capable of changing their students' cognitive functioning. The wide range of *Instrumental Enrichment* applications became possible because of this mediational methodology. Teachers and therapists who implement this program are expected to actively adjust the mediation of its tasks to the needs of the learners.

In addition to the *Instrumental Enrichment* intended for school-age children, there is also a more recent version of this program for younger children (Feuerstein, Rand, Falik, & Feuerstein, 2006). This program proved to be feasible for implementation with children who have serious developmental delays and SEN. The effectiveness of the program appears to crucially depend on the acceptance of the mediational philosophy by the entire teaching staff. The results of a multi-center study (Kozulin et al., 2010) confirmed that the greatest change in children's cognitive functioning was achieved in the educational setting where the entire teaching staff was trained in the principles of mediated learning.

Another cognitive program for young children based on the idea of mediated learning is *Bright Start* (Brooks & Haywood, 2003). Similar to *Instrumental Enrichment, Bright Start* uses specially-designed cognitive tasks and is implemented during separate cognitive lessons. Some of the targeted cognitive skills are also the same, such as comparison, classification, sequence, and patterns. In addition, *Bright Start* also includes special exercises for developing children's role taking and self-regulation. The methodology of *Bright Start* is also more open to using additional curricular materials chosen by teachers. For example, teachers may decide to select a short story and use it as material for a lesson about hypothetical reasoning. During the lesson, teachers will use cognitive guidelines provided in the *Bright Start* manual, but the choice of the story will be their own. Brooks and Haywood (2003) reviewed the results of 10 studies that used *Bright Start* with various populations of underachieving, low SES, and SEN children and concluded that the program not only helps to enhance their cognitive functioning but also improves their chances for better school achievement. In some cases, children whose pre-intervention performance placed them in the special education range made sufficient improvement to qualify for studying in regular classrooms.

While *Bright Start* uses only some of the principles developed in Vygotsky's (1998) theory of child development and learning, there are several pre-school cognitive programs that are directly derived from Vygotsky's theory. One of them is *Tools of the mind* (Bodrova & Leong, 2007) and another is *Keys to learning* (Dolya, 2007). Both programs are based on the principles of child development as elaborated in Vygotsky's theory, including the importance of the child's acquisition and internalization of symbolic tools as inner psychological tools. Both programs emphasize role playing as a major mechanism for the development of a child's self-regulation and for the enhancement of hypothetical reasoning. The application of *Tools of the mind* with pre-school children proved to be effective in significantly improving their executive functions; children who received the program were able to self-regulate their behavior and resist distracting stimuli (Diamond, Barnett, Thomas, & Munro, 2007).

A somewhat special place among the cognitive tasks programs is occupied by Pass Reading Enhancement Program (PREP) (Das, Parilla, & Papadopoulos, 2000). PREP is based on the cognitive model that emphasizes four main processes: Attention, Planning, Simultaneous and Successive information processing. The goal of PREP is to develop and enhance children's reading skills, but the road to this enhancement, according to PREP authors, lies through the development of more general cognitive skills and strategies. The

program thus includes both a *global* training component and an additional curriculum-related *bridging* component. The global component consists of structured non-reading tasks that require the application of simultaneous or successive strategies. These tasks also provide children with an opportunity to internalize strategies in their own way, thus facilitating transfer. The bridging component involves the same cognitive demands as its global component and provides training in simultaneous and successive processing strategies that are linked to reading and spelling. The connection between the level of simultaneous information processing and the quality of reading comprehension was confirmed in a study of poor readers for whom English was a second language (Mahapatra, Das, Stack-Cutler, & Parrila, 2010). Children who received the PREP program improved both their simultaneous processing skills and their reading comprehension performance.

Cognitive infusion programs

Unlike programs that use specially-designed cognitive tasks, infusion programs infuse explicit instruction of thinking skills, strategies and attitudes into curricular teaching (McGuinness, 2005). Such an approach made infusion programs more popular because they do not require additional lessons, and also do not usually include additional learning materials for students. The apparent advantage of infusion programs is in their close association with curricular learning. Instead of first learning a more general cognitive skill or strategy and then 'bridging' it to a specific curricular task, the infusion model allows for the development of cognitive skills without leaving the curricular area. The critics of infusion argue, however, that the close association with curricular material constitutes a weak rather than a strong point of this approach because instead of once teaching a cognitive skill in a generic form, the same cognitive skills have to be taught again and again, each time in a different curricular area.

This argument is related to a more general theoretical problem of transferability of cognitive strategies and skills. On the one hand some of the cognitive skills are universal enough to be applicable in a wide range of situations. For example, the principles of comparison can be applied in all curricular areas as well as in everyday problem-solving. At the same time, one may argue that because the context of learning is important, the principles of comparison learned during mathematics lessons would not be spontaneously transferred to literature or history. Moreover, at some point even a general skill such as comparison becomes subject-specific: the principles of comparison of species in biology are not the same as comparison of systems of government in history. One may then argue that more advanced learning material requires not only generic cognitive skills but also subject-specific reasoning directly related to the concepts used in the given area of knowledge.

One of the infusion programs aimed at the development of a broad range of cognitive and metacognitive skills, strategies, and dispositions is ACTS (Activating Children's Thinking Skills) (McGuinness, 2005). ACTS promotes the development of some basis cognitive skills, such as identifying part-whole relationships and noting similarities and differences, but it also includes activities that foster more complex forms of critical thinking such as making predictions and justifying conclusions, reasoning about cause and effect, solving problems and evaluating solutions, weighing up pros and cons, and making decisions. One of the explicit goals of ACTS is to develop students' metacognition so that learners not only engage in explicit forms of thinking but also use their emergent knowledge about thinking to plan, monitor and adjust their future learning and

thinking activities. The metacognitive skills are thus seen as potential facilitators of the transfer of learning.

Using ACTS with upper primary school students, Dewey and Bento (2009) demonstrated that students who received the program for two years made significant progress in verbal, quantitative, and non-verbal cognitive skills beyond what could be expected by spontaneous development. Students also learned to identify cognitive processes and distinguish between lessons that involve cognitive aspects and those that are purely content oriented. The implementation of the ACTS program apparently also made an impact on teachers' pedagogical orientation as can be gleaned from the following statement made by one of the ACTS teachers:

> Before ACTS I was very much focused on directing the children to engage in my thinking and finding my right answers. Now I have realized how important it is not to always spoon feed the children but let them converse, hypothesize and shape their own thinking when trying to reach a conclusion. (Dewey & Bento, 2009, p. 341)

Another broad-range infusion program is TAAC (Thinking Activity in an Academic Context) (Sanz de Acedo Lizarraga, Sanz De Acedo Baquedano, & Oliver, 2010). The program is based on an eight-stage approach: Seeking information about the topic, defining the learning goals, generating new ideas about the goals, deciding which ideas are more relevant to studying the topic, verifying the learning, assessing the way the skills were practiced and the topic was studied (individually and in groups), presenting the achievements attained and the errors committed to the group and learning from the experience. Each stage is further elaborated into specific activities. For example, the last stage, 'Learning from experience', includes the following activities: Summarize personally what was learned; Compare what is known at the end of the unit with initial knowledge experience; Transfer what was learned to other situations; Identify thinking skills that were practiced during the didactic unit.

TAAC was implemented with underachieving upper primary school students in the context of language, mathematics and environmental studies for one school year. The achievement of the TAAC groups was compared to that of students who received the same curriculum but without cognitive infusion. The results indicate that students in the TAAC groups made significantly greater progress in cognitive skills (comparison, analysis, synthesis, classification, and seriation), creative intelligence, and academic achievement (language, mathematics and environmental knowledge).

Cognitive skills can also be infused into everyday reasoning tasks rather than curricular material. This approach appears to be particularly relevant for students with more serious SEN who experience difficulties not only in the classroom but also with everyday life tasks (Cote, 2011). One possibility for the development of everyday problem-solving skills is to use commercially available problem-solving story-books. The teacher may start by introducing students to three basic questions: (a) What's the problem? (b) How can you fix it? and (c) Why would it work? The use of these questions for students' self-guidance can be facilitated by adding visual prompts such as flash cards. Then students start reading story-books whose characters solve everyday life problems. The teacher guides the students' comprehension process by posing relevant questions, such as 'What problem did character A have?' and 'What did he do to solve this problem?'. This activity helps students to grasp the meaning of problem-solving situations and the methods of solution. The next stage is the transition from the analysis of the behavior of story-book characters to presenting students with problem situations while helping them to identify the problem and possible solutions, and then selecting the best solution. After that, students are asked to role play possible solutions. The last stage of the intervention is

generalization of problem-solving strategies and the assessment of students' mastery and retention of problem-solving skills. Cote (2011) suggested that such a program may require 16 weeks to be implemented with students who have mild to moderate intellectual disabilities.

COGNITION-DEVELOPING CURRICULAR PROGRAMS

One of the difficulties in implementing cognitive approaches in school systems is the teachers' entrenched perception of classroom learning as a process of absorption of curricular content with the help of cognitive functions pre-existent in students' heads. From the point of view of Vygotsky's theory of learning (Kozulin, Gindis, Ageyev, & Miller, 2003) the above perception is erroneous and undermines the development of students' higher forms of cognition. According to Vygotskian theory, students' cognitive development should be set up as one of the main goals of curricular learning. Instead of just using the already fully-matured cognitive functions, curricular learning should actively develop the higher forms of cognition. To fulfill this role, however, the material and the didactics of teaching should be redesigned in such a way that the process of learning a given subject (language, mathematics, science, etc.) will lead to the development of students' cognitive strategies and skills. This idea has been realized in developing a number of primary school curricula that instead of using students' already existent cognitive and metacognitive skills, actively promote their formation via redesigned curricular teaching (Schmittau, 2004; Zuckerman, 2004). The main goal of such primary school curricula is to turn students into reflective thinkers capable of distinguishing what they know from what they do not know, and becoming skillful in requesting teachers' assistance for coping with the tasks situated within their ZPD. Students are taught to consider the goals, methods, and means of their actions. To do this, they are introduced to the notion of the mental schema of the action and learn how to use signs, symbols and other graphic-symbolic organizers to connect the action and its mental schema. Students also learn to assume the position of the other and to look at things from different perspectives. This is achieved by collaborative learning and by tutoring younger students. The issue of self-evaluation becomes one of the foci of learning. Students learn how to identify their own strong and weak points through considering criteria of self-evaluation, building evaluation scales and deciding about the relative value of each task. Text- and work-books used in these programs, especially in the early grades, include a number of general cognitive tasks. The first grade mathematics work-book, for example, has a considerable number of exercises aimed at the development of such general concepts as 'basis for comparison' or 'object used as a measure' before introducing the concept of number. Research demonstrated that students exposed to 'Vygotskian' curricula do not solve standard math problems better than other students, but show a considerable advantage with more complex math problems that require reflection and creativity (Zuckerman, 2004).

Cognition-developing curricula can be used not only as standard curricula in primary school but also as remedial programs with older students. A mathematics program (*Rigorous Mathematical Thinking*) developed by Kinard and Kozulin (2008) was successfully implemented with systematically underachieving students in culturally heterogeneous classrooms. Students who received this program not only significantly outperformed their peers who received a standard mathematics curriculum, but also demonstrated impressive gains in general cognitive skills.

Several science and math teaching programs developed by Michal Shayer and his colleagues (Shayer, 1999;

Shayer & Adhami, 2010) may also be considered as cognition-developing curricula. Using the ideas of Vygotsky and Piaget as a foundation, Shayer and his colleagues created a series of class-room exercises and activities that though curricular in their content, nevertheless were primarily aimed at developing students' general intellectual skills. Younger children are thus helped in enhancing their concrete operational thought and older children in reaching the level of formal operations. Research of these programs revealed that participating students not only improved their intellectual operations (measured by Piagetian tasks) but also transferred thinking strategies to other curricular areas as demonstrated by the improved performance of language tasks that were not a direct target of intervention.

THE DIFFICULTIES IN IMPLEMENTING COGNITIVE PROGRAMS

The way from educational laboratory or pilot project to a sustainable classroom implementation is not easy for any educational program or method. The position of cognitive intervention programs is even more precarious because they are still considered to be 'experimental' and sometimes even 'alien' in traditional content-based education. Harpaz (2007) identifies several problems facing cognitive programs once they start being implemented in the classroom on a regular basis. For the cognitive tasks programs, the main problem is that 'thinking lessons' are often forced upon students without properly explaining their relevance and without changing the didactics of teaching. Cognitive skills thus become yet another school subject perceived as content rather than method. Like any other content subject, cognitive tasks are learned, relevant exams passed, and then … forgotten.

For the programs focusing on the cultivation of thinking dispositions, such as open-mindedness, perseverance, or reflective reasoning, the main problem stems from substituting 'preaching' for cultivation. Instead of embarking on a lengthy and difficult process of changing the type of teaching and learning and gradually cultivating students' deeper and more reflective reasoning, schools often just preach the value of these dispositions without actually cultivating them.

For the programs that aim at promoting students' activity in constructing, rather than just receiving conceptual knowledge, the main problem is that the pressure to 'cover the material' often prevents teachers from fully implementing the cognitive approach. In the absence of sufficient time for construction, concepts are just transmitted to students in a ready-made form.

The above difficulties are closely related to the still unresolved problem of professional development in the field of cognitive education. An absolute majority of teachers leave colleges and universities without receiving sufficient knowledge about cognitive interventions and methods of their implementation. Cognitive training thus becomes almost exclusively an in-service event for teachers whose background does not help them to integrate a cognitive approach into school curricula. Because cognitive interventions are often perceived as 'additional' professional status of teachers who specialize in cognitive education also remains uncertain.

CONCLUSION

The above difficulties notwithstanding, in the last decades dynamic methods of assessment and cognitive intervention programs have gained important ground in the field of general education as well as education of students with SEN. The distinctive features of these educational trends can be summarized in the following

way:

- Children's learning potential and their ability to benefit from joint activity with mentors is considered to be no less important than independent performance typically assessed with the help of standard, 'static' tests.
- Dynamic assessment (DA) is an umbrella term that covers a wide range of procedures all of which, however, include learning as an integral part of the assessment. DA may target such general cognitive functions as perception, attention, memory, and problem-solving, or be curriculum-based, focusing on students' learning potential in reading, mathematics and other areas.
- One of the important goals of DA is to formulate recommendations for the development of students' cognitive and learning functions via targeted cognitive intervention.
- Similar to DA, the concept of cognitive intervention is built on the theoretical premise that students' cognitive strategies and skills are not inherent and immutable, but flexible and learnable. Many students including students with SEN cannot spontaneously extract cognitive strategies and skills from their learning experience with curricular materials, but need to study them in a systematic way.
- There are three main types of cognitive intervention programs: Cognitive tasks programs based on a specially-designed systems of cognitive tasks; Infusion programs that infuse cognitive strategies and skills into curricular teaching; and Cognition-developing curricular programs specially-designed in such a way that students' cognitive development becomes an integral element of curricular teaching.

The future of the DA and cognitive intervention programs lies in their integration. The results of the assessment of students' learning potential or/and cognitive modifiability have to be translated into the pedagogical strategy that includes selection and implementation of an appropriate cognitive intervention program.

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Expanding Approaches to Summative Assessment for Students with Impairment

J. Joy Cumming and Graham S. Maxwell

INTRODUCTION

This chapter focuses on use of classroom assessment approaches and teacher judgement with social moderation to provide summative assessment evidence for the achievement of students with impairment. The chapter describes the context of the authors, examines issues in standardized measurement approaches for students with impairments, discusses a social constructivist model of assessment and performance assessment, provides an overview of the social moderation system used for high stakes school-based assessment in Queensland, Australia, and finally presents a model of stages of consideration by teachers to ensure equitable assessment of students with impairment.

CONTEXT OF THE AUTHORS

The context of this chapter's discussion is Australia, and in particular, the state of Queensland. We acknowledge that the context that shapes our discussion has certain special characteristics that may differ from other contexts. We mention four such special characteristics.

First, in this context, all students are expected to be in formal education, training or employment until 16–17 years of age. A majority of students transit from secondary school to higher education or vocational training.

Second, the principle of education for all, including students with impairment, is valued and prioritized; students with impairment are enrolled in educational settings according to their own and their family's wishes. Inclusion in regular schooling is the goal. At a time when students with impairment may still be excluded from education provision in many countries (United Nations, 2010), Australian federal and state governments provide substantial financial support for inclusive education through personnel and other resources. The right of students with impairment to education that is equitable and free from discrimination is protected by Australian federal legislation, the *Disability Discrimination Act* (DDA; 1992), and corresponding *Disability Standards for Education* (DSE; 2005). Students with impairment not only have this right, they and their Associates (family, caregivers, key individuals) are to be consulted and have a voice on their educational programme and appropriate assessment (DSE, 2005, s 6.2; Lewis & Porter, 2007).

Third, Queensland's anti-discrimination legislation, the *Anti-Discrimination Act* (ADA; 1991), which exists alongside federal legislation, prevents discrimination on the basis of 'impairment', not 'disability'. While the two terms are defined similarly in federal and state legislation, consistent with the philosophy of this Handbook, the Queensland act reflects the social model of 'impairment' as identifying a state of being.

'Disability' is created by barriers society puts in place that prevent individuals with impairment from full participation. Barriers can be physical, such as stairways to classrooms for students with mobility issues, or academic, including assessment forms that prevent students from being able to demonstrate their knowledge, skills or competencies. A focus on *impairment* places a proactive requirement on educators to move away from medical categorization of 'disability', which disempowers individuals while empowering specialist others to provide remedies and solutions, to identify the effect of an impairment, and vice versa, on educational processes.

Fourth, this chapter is written from the context of an education system that values teachers' professional judgement of student performance even for high stakes school certification and assessment. For nearly 40 years, Queensland has adopted quality assurance structures that enable schools and teachers to implement curriculum and assessment to suit their students and school contexts. Especially, the Queensland senior secondary assessment system, based on explicit performance standards and social moderation through external peer-review, has unique qualities recognized internationally (Harlen, 2005). The cultural embeddedness of such an assessment approach strongly affects how we as authors perceive possibilities for fair and equitable assessment of student achievement for students with impairment.

SUMMATIVE ASSESSMENT APPROACHES IN EDUCATION: THE PSYCHOMETRIC MODEL

Assessment theory and practice are often presented as a continuum of approaches. However, there are two distinct paradigms: psychometric assessment and performance assessment. These paradigms have core theoretical and philosophical differences nowhere more evident than in assessment of students from diverse backgrounds, including students from different language and cultural backgrounds and students with impairment (Cumming, 2012; Stobart, 2008).

This chapter focuses on the use of performance assessment for summative assessment of students with impairment. We define assessment as 'the purposeful collection of evidence of student learning' (Queensland Studies Authority [QSA], 2012a), with summative assessment, a point-in-time judgement or decision made on the basis of such evidence, collected over time, for reporting purposes. To understand performance assessment approaches to assessment, it is important first to distinguish them from psychometric approaches.

In psychometric assessment, the focus is perceived objective measurement of an attribute or achievement. Psychometric approaches use standardized instruments and administration and scoring procedures. Scoring or rating can be based on norm-referenced or comparative approaches, where individuals' outcomes are compared to others', such as through percentile rankings, or against criterion-referenced standards (Cumming, 2012, pp. 61–65). Psychometric approaches entail several underpinning processes:

- instruments are developed using statistical test measurement theory, either classical test theory or an item response modelling (IRM) theory;
- instruments rely on predetermination or statistical determination of an underlying construct being measured in a manner applied equally to all;
- bias is evaluated through statistical analyses of differential patterns of response to items by pre-specified groups, such as student gender or students with/without impairment;
- administration and scoring procedures are standardized to minimize subjectivity and to preserve the 'integrity' of the instrument.

Psychometric measurement can be valuable for students with impairment when developed for diagnostic or comparative purposes, that is, for profiling the performance of students with impairment in comparison to other students or to expected standards of performance. Such processes may enable identification of specific learning needs and difficulties or chart progress against hypothetical 'normal' development.

Psychometric measurement approaches, however, are problematic in summative assessment of students with impairment, whether for assessment of regular classroom achievement or for comparison to other students. First, psychometric approaches rely on standardization and consistency, contra-indicative to best special education practice where education is tailored to suit students with impairment and to allow them to direct their learning and goals (Lee, Wehmeyer, Palmer, Soukup, & Little, 2008).

Second, statistical approaches used in psychometric measures require large sample sizes to establish test parameters and reliability. Statistical processes for determining bias in psychometrics treat students with impairment as a homogenous group, despite awareness that such students have a heterogeneous range of physical, mental and intellectual disabilities (Geisinger, 2005; Nester, 1993; Pitoniak & Royer, 2001; Randall, Cheong, & Engelhard, 2011; Sireci, Scarpati, & Li, 2005).

Third, development of quality psychometric measures requires considerable time, and human and financial resources. Necessarily, they only measure aspects of any attribute of focus. Because of this, their design results in stability over time rather than responsiveness to small changes in learning from a broader curriculum framework. While standardized measures are commonly used to assess student educational achievement, they cannot address the full gamut of educational curriculum and learning expectations of 21st-century schooling.

Perhaps most importantly, in accordance with the processes outlined above, psychometric measurements aim to achieve objectivity, fairness and equity in assessment for students with impairment by *negating* the impairment. Usually, a limited range of strictly-controlled accommodations or adjustments is provided for students with impairment, for example, extra time, large print, or assistance with reading or writing. Concerns are consistently raised that such adjustments should not give students with impairment an unfair advantage (see, e.g., Australian Curriculum Assessment and Reporting Authority [ACARA], 2011, p. 13; Qualifications and Curriculum Development Agency [QCDA], 2011, p. 4). Indeed, to ensure adjustments do not provide an unfair advantage, it is recommended they should take into account adaptive behaviours that students with impairment may have developed to compensate for their impairment (Geisinger, 2005, Kindle location 5262; Phillips, 1994, p. 104). Further, accommodations provided to 'level the playing field' for students with impairment, such as time allowances, are not evidence-based and contrary to existing research findings (Nester, 1993; Ragosta & Wendler, 1992; Sireci et al., 2005; Zuriff, 2000). Sufficiency of adjustments is assumed, however, as long as students with impairment can demonstrate satisfactory or average standards (Cumming, 2012, pp. 62–69).

The assumption is that such accommodations ameliorate impairment without reducing 'validity' of measurement of underlying constructs (Thurlow, Thompson, & Johnstone, 2007), putting students with impairment on the same footing as students without impairment (Cumming, 2012, pp. 58, 62). This is equivalent to claiming that a race with accommodation could show how fast Oscar Pistorius could run if he was not an amputee, given concern that his prosthetic blades (accommodation) may give an unfair advantage (Cumming, 2012, p. 62):

If only we knew how well students with impairment would do in their school-work if they did not have an impairment …

Psychometric approaches to assessment of specific constructs for all pose 'the measurement specialist with the policy dilemma of whether a disabled person should have the option of substituting a different skill for the one measured by the test' (Phillips, 1994, p. 96). Students with impairment are seen to create measurement problems for test standardization through the need to alter conditions or content (Phillips, 1994, p. 93), requiring students to be fitted to the psychometric model, rather than adapting the model to fit these students. While the endeavour is to create fairness and equity through objectivity, as Broadfoot (2009, p. xi) has noted, 'the pursuit of scientifically defensible measurement has substantially eclipsed issues of utility, fairness and relevance'.

This discussion shows that psychometric approaches to summative measurement of student achievement with impairment focus on assessment of students with impairment within a framework of assessment of students without such needs. Limitations on adjustments and concerns about unfair advantage demonstrate, even when not explicit, that a primary focus on objectivity is on comparison with peers, with and without impairment, rather than optimal demonstration of learning by the student with impairment. The 'integrity of the test' is a paramount concern (Thurlow et al., 2007).

A SOCIAL-CONSTRUCTION APPROACH TO ASSESSMENT OF ACHIEVEMENT OF STUDENTS WITH IMPAIRMENT: A PERFORMANCE ASSESSMENT APPROACH

Our alternative position is based on the proposition that the primary focus of assessment in schooling is identification of what a child knows and can do. Such assessment information can be used for summative reporting as well as for identifying where further learning assistance may be needed and where learning can next progress. Assessment forms and processes should maximize opportunity for students to demonstrate their knowledge. This is encapsulated in Australia's *Disability Standards for Education* (2005) requiring that assessments enable a student with impairment 'to demonstrate the knowledge, skills or competencies being assessed' (s 6.3(f)), an expectation that can be interpreted to mean optimal demonstration of knowledge.

We perceive the act of assessment as social interaction among teachers and students with context an integral factor (Broadfoot, 1996; Rowntree, 1987). As Rowntree (1987, p. 4) noted:

… assessment in education can be thought of as occurring whenever one person, in some kind of interaction, direct or indirect, with another, is conscious of obtaining and interpreting information about the knowledge and understanding, or abilities and attitudes of that other person.

When assessment is viewed as social interaction occurring in context, the nature of the interaction and the context will necessarily affect the nature of assessment, evidence obtained and interpretation to be made. The context of social interaction can be taken to its broadest definition; not just social within a defined context but

also cultural as reflecting all contexts.

Following a social or cultural model of disability, students with impairment in schools can be viewed as students with diverse cultural backgrounds and experience. When students with impairment are treated as individuals, categories or labels for students are not needed for determination of effective assessment. Ipsative analysis of the *effect* of impairment on students' participation in education, learning and assessment is required (Norwich, 2007).

Equitable assessment, therefore, for students with impairment, as for all students, strives to identify as validly and reliably as possible what students know and can do (Pellegrino, Chudowsky, & Glaser, 2001). If the goal of assessment in classrooms is to have high validity against curriculum and learning goals, a performance assessment approach is required. When assessing a student with impairment, we must consider all factors that for the student interact with educational learning and demonstration of learning through assessment.

PERFORMANCE ASSESSMENT

The principle of performance assessment is that students are engaged in daily, continual or point-in-time demonstration of their learning in an explicit and directed form. As Stiggins and Chappuis (2012, p. 138) succinctly state:

> Performance assessments involve students in activities that require them actually to demonstrate performance of certain skills or to create products that demonstrate mastery of certain standards of quality.

The emphasis in performance assessment is on the 'doing', but not necessarily undertaking a large activity. Our interpretation of performance assessment is broad, not restricted to 'authentic' assessment (Cumming & Maxwell, 1999), within an expectation that learning to be demonstrated relates to the focus of classroom instruction. Such learning can range from knowledge of simple arithmetic facts or spelling of individual words to complex scientific projects. Assessment of quality and mastery requires teacher observation and judgement.

Performance assessment with students with impairment requires teachers to examine their expectations of the learning to be demonstrated and assessments that enable such demonstration. We advocate a return to first principles of assessment to create equitable classroom assessments for students with impairment. For many teachers, and policy-makers, this may raise the same anxieties as for psychometricians as to what constitutes fairness, equity, and equivalence of judgement if learning expectations and assessment forms differ from student to student.

As stated initially, we write from a context where diversity of outcome and assessment are authorized by policy-makers and schools for high stakes assessment and certification for high school graduation. In the following section, we briefly explain how this system works and the affordances such an approach brings to teachers and students with impairment.

THE QUEENSLAND QUALITY ASSURANCE MODEL FOR YEAR 12 HIGH SCHOOL CERTIFICATION

The Queensland senior schooling quality assurance system of externally-moderated peer-reviewed school-

based assessment has been described elsewhere (Cumming, 2010; Maxwell, 2010; Maxwell & Cumming, 2011; Sebba & Maxwell, 2005). The system recognizes that the aims of modern curriculum to promote knowledgeable students capable of problem-solving and critical thinking require assessment approaches that validly reflect student achievement of such aims. Validity of the assessment–curriculum match is therefore the starting point, with the need to go beyond point-in-time written examinations to more continual and performance assessments of classroom learning. A principle of student demonstration of 'fullest and latest' learning for exit grading and certification is also maintained (QSA, 2010a, p. 15).[1]

Within this system, the focus has then turned to how to maximize reliability of teacher judgements so that comparability of student achievement outcomes in a subject is assured across all schools in the state. Queensland espouses the principle that teachers be the managers of assessment of their students (see, e.g., QSA, 2007). Overseen by the QSA, quality assurance for student outcomes is undertaken across approximately 290 secondary schools in Queensland (government and non-government) in more than 70 'Authority' subjects[2] ranging from mathematics and science to languages, the creative arts including dance, health and physical education, and philosophy. While the subject English enrols some 30,000 students, some subjects enrol fewer than 100 students (QSA, 2012b). The same processes apply for all 'Authority' subjects.

The starting point for quality assurance is state-developed subject syllabuses providing guidance to schools, but not prescription, on content to be studied. These syllabuses have statements of quality achievement standards and criteria on which student performance is assessed. Overall school-based grading for each student in these subjects is on the five-point scale: Very High (VHA), High (HA), Sound (SA), Limited (LA), Very Limited (VLA) Achievement.

Taking a non-traditional field, dance, the four syllabus dimensions are Choreography, Performance, Appreciation, and Attitudes and Values (not formally assessed). Table 34.1 provides syllabus descriptors for three standards of achievement on the criterion Performance (QSA, 2010a, p. 30).

Schools develop work programmes showing curriculum content to be taught and summative assessment activities to be undertaken. Work programmes are submitted *prior* to commencement of instruction in Year 11 (every 6 years or when schools want to change), the first year of the 2-year course of study in senior schooling. Panels of peers evaluate work programmes to ensure not only comprehensive curriculum coverage but also that assessment frameworks provide students with opportunity to demonstrate all required dimensions of achievement, and at the highest standard. Overall achievement represented by the single grade (e.g., VHA) is determined by considering tradeoffs across different dimensions of the performance profile over time and assessments, a configuration (Sadler, 1987, citing Kaplan; QSA, 2010a, p. 29), rather than simple averaging of marks and applications of cut scores.

Table 34.1 Descriptors for three standards of achievement – 'performance'

Dance – performance	VHA	SA	VLA
The student work has the following characteristics:	• Authoritative demonstration of knowledge and understanding through the integration of dance components and technical skills in given context, genre and style. • Sensitive interpretation of the choreographic intent through the sophisticated synthesis of dance components and expressive skills.	• Appropriate demonstration of knowledge and understanding through the dance components and technical skills in given context, genre and style. • Interpretation of aspects of the choreographic intent through the synthesis of dance components and expressive skills.	• Demonstration of knowledge of aspects of dance components with variable technical skills in given context, genre and style. • Demonstration of aspects of dance components with variable expressive skills.

Schools implement approved work programmes and submit teacher-graded student work samples at the end of Year 11, to ensure planned curriculum content and levels of achievement are indeed demonstrated. Near the end of Year 12, sample student work portfolios for different achievement levels are submitted and again reviewed by panels of peers to verify results given to students. The example for dance above requires verification of digitized recordings of student performance.

The principle is verification, not remarking, a restatement of faith in teachers' professionalism and judgement. Review panellists are expected to 'understand the flexibility schools have to develop syllabus-based courses of study and assessment to match their unique contexts, cohorts and resources' and to 'conduct professional conversations … in a respectful, confidential and collegial manner' (QSA, 2010b, p. 27). Conversations are about what panellists see and value against achievement standards, rather than cross-marking, looking for verification of demonstrated achievement through the portfolio evidence. What is accepted in this process is that while classroom teachers and panellist teachers may not perceive evidence in the same way, overall they can identify required standards of performance, a social-constructivist view of assessment.

The Queensland senior schooling quality assurance system has consolidated over nearly 40 years, as the assessment culture of Queensland education.[3] Guild knowledge of both system authorities and teachers has grown over time. Very high congruence, or reliability, in teachers' judgement has been identified in independent research using independent assessors regrading different standards of student work (Masters & McBryde, 1994; QSA, 2000–2011). High degrees of comparability in schools' application of standards are detailed in annual State Review Panel Reports and Random Sampling Reports (QSA, 2000–2011). Such congruence did not emerge overnight but continues to evolve.

Three findings from the practices of this system have emerged. First, consistency in judgements of standards depends on having common descriptors of standards to which such judgements are referenced. Written descriptors themselves, of course, are not sufficient to ensure consistent interpretation; they need transaction through shared professional conversations among teachers. These shared conversations are generated through the processes of moderation – opportunities for teachers to compare their judgements of the standards of particular examples of student performances (Maxwell, 2009, 2010). Second, consistency was not achieved overnight, but built year-on-year through maintenance of the same set of common standards.

New teachers are inducted into a 'stream of consciousness' of a system that maintains its memory. Third, moderation processes provide powerful teacher professional development concerning quality assessment practice and shared understanding of standards (Maxwell, 2009, 2010). While the major focus on such quality assurance in Queensland is in Year 11 and Year 12 subjects, projects incorporating moderation practices have been undertaken with teachers in earlier years of schooling.

Valid and reliable performance assessments of student learning for high stakes purposes are enabled through this quality assurance system through the prior specification of learning expectations and standards and through professional conversations about those expectations and standards. Of most salience for equitable assessment for students with impairment is that from the outset it is established that students in a subject across the state will not all study exactly the same curriculum content and will complete different assessments to demonstrate learning, with assessment evidence taking many different forms. All students within a school within a subject need not complete the same assessment. The focus of performance assessment is situated decision-making concerned with high validity and subsequent reliability.

Therefore, equity in assessment does not require the same assessment for all. The QSA Equity Policy avoids the use of labels. It recognizes diversity of learners, the need for education to be 'socially and culturally responsive and inclusive', and the need to identify and remove structural barriers to access and participation for all (QSA, 2011). 'Special provisions' for school-based assessment in the senior schooling years involve 'making reasonable adjustments to conditions of assessment to ensure equitable opportunities for all students' which 'may apply to any student' for which 'the school is required to consider what adjustments to assessment conditions are reasonable in the circumstances' (QSA, 2010c, p. 7).

Making such adjustments is 'a positive act' directed at ensuring that all students 'have appropriate *opportunities* [emphasis added] to demonstrate their current knowledge and skills', but without compromising expected performance standards. 'The school is required to maintain the intent and rigour of the syllabus or study area specification and any other requirements or components that are inherent or essential to the course of study.' (QSA, 2010c, p. 9).

The long-term success of the Queensland system of school-based assessment shows that high stakes assessment can transcend standardized testing and allow adaptation by schools and teachers of common curriculum and assessment standards to suit students and context. In the following section, we draw on this background of successful school-based performance assessment to present a model for Equitable Assessment for Students with Impairment (EASI) using the LEARN framework.

EASILEARN: EQUITABLE ASSESSMENT FOR STUDENTS WITH IMPAIRMENT

Figure 34.1 provides a flowchart representing decision points in development of equitable assessments for students with impairment. Within each decision point, we raise issues to be considered. Our discussion is not exhaustive; other issues may arise in context. The goal of this discussion is to assist teachers to clarify assumptions that underpin expectations for students with impairment and equitable assessment of their learning.

Learning expectations

The starting point for development of appropriate assessment for students with impairment(s) in classroom settings has to be identification of learning expectations to be assessed. Learning expectations may draw on a variety of sources: national or state curriculum or syllabus guides in discipline-specific areas; statements of generic skills (literacy, numeracy, information technology); and/or individual education programmes. Learning expectations (or objectives) may represent specific content or processes, academic or physical skills to be mastered, a product ranging from abstract to tangible (e.g., making a chair), or affective outcomes (attitudes, values, effective learning). Until learning expectations are identified, appropriate assessment cannot be considered.

Once learning expectations are identified, decisions must be made about how to represent achievement of these learning outcomes. One option is a performance levels approach, as in the five ordered categories of the Queensland senior syllabuses. Quality assessment requires pre-specification of these standards of performance in terms of the criteria or dimensions of performance to be assessed and characteristics of different levels of quality (Sadler, 1987). Another option is a mastery approach, e.g., competent/not yet competent, which also requires qualitative descriptors. Another option is developmental stages, charting progress from novice to expert or beginner to advance, found especially in language or music programmes (Maxwell, 2009). This list is not exhaustive. The point is that consideration of equitable assessment for students with impairment starts with the learning outcome expectations.

Start here

Equity considerations

Is the expectation appropriate without alteration?

Should alteration of expectation be a change in level or change in quality?

Should alteration apply to all of the content?

Is there an interaction between the learning expectation and the student's impairment/s?

Is the expectation discriminatory? If so, consult student/Associate on appropriate expectation, start again.

Is an inappropriate expectation required learning? If so, is a substitute equivalent expectation to be identified?

Can an element of required learning be severed to allow assessment of remainder?

Learning expectations

Curriculum source
- National/state standards or curriculum
- Generic skills
- Individual education programme

Learning expectation
- Specific content, or process
- Academic skill
- Physical skill
- Product
- Personal learning

Grading
- Levels of quality of performance
  - Identify criteria and standards
- Pass/fail
- Achieved/achieved with assistance/not yet achieved
- Competent/not yet competent

Assessment

How can/will the learning outcome be assessed?

observation | written | test form
oral | visual | signed
individual/group
created product | technology-based

Equity considerations

Is the proposed assessment form appropriate without alteration?

Is the assessment form discriminatory?

Is there an interaction between the proposed assessment form and the student's impairment/s?

How can the assessment be designed/modified to suit the student?

What is the student's/Associate's view on this?

Is the assessment form required? [think carefully]

Reporting

How can/will the learning outcome be reported?

Stage of schooling for all content
Modified result stage stating omitted-altered content/process/skill
Lower grade level
Checklist
Portfolio
Video capture

Moderation

What level of moderation of your teacher judgement is required?

High stakes comparative outcome, close moderation

Individual outcome, low moderation

EASI JUDGEMENT

Figure 34.1   Model of equitable assessment for students with impairment: EASILEARN

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Equity considerations for learning expectations

When learning expectations and outcome determinants are clearly identified, equity considerations for the effect of students' impairment on these expectations, and vice versa, must be considered. Starting from an educational perspective, the question is whether learning expectations are appropriate for students without alteration. If the expectation is academic learning in a discipline area, but the expectation stated in the guiding framework is not suitable, the question is whether alteration to the expectation represents a change in level of work or quality standards.

For example, in the Australian national mathematics curriculum, an expected student learning outcome in Year 3 is 'Recall addition facts for single-digit numbers … to develop increasingly efficient mental strategies for computation' (ACARA, 2012, p. 27). Two criteria are implied for success: recall, and mental strategies. Standards for quality of success could be developed. Students whose impairment has an effect on long-term memory capacity, however, may not be able to recall simple addition facts. Yet, research has long shown that students with an intellectual disability can demonstrate conceptual mathematical understanding of addition and effective solution strategies (Baroody & Snyder, 1983; Finnane, 2007). So is this learning outcome suitable for these students or is the lower-level expectation for Year 2 the appropriate learning goal? However, the Year 2 goal is 'Solve simple addition and subtraction problems using a range of efficient mental and written strategies' (ACARA, 2012, p. 27). This is not the Year 3 expectation with reduced memory demand. The conceptual understanding expectation for Year 3 may be appropriate for the student if the expectation of recall is amended or removed. Thus, a modified Year 3 expectation may be more appropriate than the lower-Year level expectation, with subsequent assessment and reporting on this modified expectation.

Reading is another contentious area for assessment, an area where available adjustments are limited if the learning expectation is based on recognizing and decoding letters and words in written text. Often, curriculum hierarchies of learning lead to assessments that focus on lower-order skills for students with impairment, restricting their opportunities to demonstrate higher-order thinking and problem-solving. A student with difficulty in decoding skills may demonstrate critical insights into and comprehension of aural and written media and be able to produce quality text using technology. Failure to decode words should not prevent the student from opportunity to demonstrate these higher-order reading skills. Students with impairment should be exposed to full curriculum expectations. If some aspects of learning expectations are not suitable for students with impairment, they should not be denied opportunities to learn other aspects of a subject.

Legal equity considerations also influence learning expectations. Learning expectations may be discriminatory, for example requiring an individual with an impairment to comply with an expectation that the effect of the impairment means that they cannot fulfil, such as climbing stairs or running fast for physical impairments, watching or listening to a movie without adjustments for visual or hearing impairments. Teachers need to consider whether such components are required by learning expectations, whether they can be removed while the remainder of learning expectations remain in place, or whether an equivalent but more suitable learning expectation can be identified.

Finally, consistent with a cultural view of impairment, possible interactions between the learning expectation to be assessed, and the nature of impairment of the student, need to be examined. The nature of knowledge underpinning a learning expectation cannot be assumed implicitly to be the same for all students

with or without impairment. Interaction can arise between learning expectations and the effect of impairments (contra Thurlow et al., 2007, p. 343); those without an impairment may construct knowledge differently from those with an impairment (Gallagher, 2007, p. 517). Many members of the deaf community have argued for a separate cultural identity; that they are not to be viewed from an assimilatory perspective that measures them against 'normality and typicality' (Johnson & McIntosh, 2009, p. 75).

We are still learning about diversity of knowledge structures that relate to 'unique learning characteristics of students' (Kleinert, Browder, & Towles-Reeves, 2009, pp. 301, 306). Recent neuroscience research has highlighted the prospect of different ways of knowing interacting with impairment: blind individuals who could name geometric shapes when handled could not identify the shapes visually following surgery that restored their sight. While their brain adapted quickly after gaining vision to combine their prior mental knowledge with new physical knowledge, their prior knowledge construction of shape when blind was different from that of sighted people (Held et al., 2011). While such research is still new, we should be wary of assumptions.

Assessment

Once learning outcome expectations are identified, how learning will be assessed can be considered. Assessment can take many forms including: teacher observation (formal, informal); written task or assignment; controlled examination; oral or signed response or presentation; visual response or presentation. A product can be created. Technology may be central to the learning, a tool for assessment, or both. Any good assessment text will identify the full range of assessment formats that can be used to elicit different types of learning. Often in assessment, teachers do not step back to consider the essential learning being assessed, as just discussed; the secondary *form* of assessment gets in the way of the primary purpose (Cumming & Maxwell, 1999).

Assessment participation can occur as an individual or group, although group assessments may not suit students with social-emotional impairments. Self-assessment and engagement with assessment are known to be important to improve student learning outcomes (Broadfoot & Black, 2004; Stiggins & Chappuis, 2012). While self-assessment for students with impairment is not well-researched, available evidence indicates that students with learning disabilities may be able to direct and gauge outcomes of their own learning through explicit task design, instruction and understanding of assessment expectations (Black & Wiliam, 1998, p. 27; Chalk, Hagan-Burke, & Burke, 2005).

The first consideration, then, in planning assessment for students with impairment is to make no assumptions about what they may or may not be able to do, just as the expectations for their learning should not be limited. The same range of assessment options and opportunities considered the best approach to assess learning expectations for students without impairment should be considered for students with impairment. An emerging issue is that students with impairment do not want always to be treated differently from their peers and regard some assessments as a 'right of passage' (Whitburn, 2011). Boundaries set and assumptions by others about the capacities of students with impairment can create the discriminatory practices for students with impairment they were intended to prevent (Davis & Watson, 2001; McMaugh, 2011). The starting point for equitable assessment is to assume participation rather than protection.

Equity considerations for assessment forms

The primary equity consideration for assessment design is whether the proposed *format* of assessment to assess the identified knowledge is appropriate without alteration. For example, if a student has leg mobility issues, does this affect their participation in a written English examination? The response could be yes or no, dependent on whether the student needs water, assistance with regular movement, or additional time for concentration. However, a written examination form would be discriminatory for a student with limited arm mobility who cannot manage standard writing utensils. The adjustment could be to provide alternative processes for the student to provide the learning evidence being sought through the written examination, either through provision of an amanuensis, use of technology, or oral report. Such adjustments will also require consideration of time. As noted, the types of time extensions given in standardized tests are not evidence-based with respect to the time students with impairment need to demonstrate their learning to an optimal extent. Teachers will raise again the dilemma of equity of time for students with impairment compared to students without impairment. As Sireci et al. (2005), citing Elliott and Marquart (2004, pp. 349–350), commented:

> Time and speed of response are constructs that rarely, if ever appear in the state or district content standards … Time is actually more of a test management issue than a construct to be measured in learners.

The general advice is that if all students would do better with additional time, then additional time should be provided for all (Zuriff, 2000). The critical element in assessing students with impairment is not the format of assessment but the evidence to be obtained to demonstrate students' learning. If necessary, this can be video-recorded for digital records.

The Australian Disability Standards expect students and their families to be consulted on appropriate assessment. As noted, student voice and self-determination are considered best practice in education of students with impairment, if not of all students, when determining assessment approaches. Most students with and without impairment are fully capable of expressing opinions about assessment (Roach & Beddow, 2011). While writing from the perspective of developing valid psychometric tests, Roach and Beddow saw integration of student voice as essential in 'development and validation of inclusive and accessible assessment strategies', expanding epistemological and methodological frameworks that dominate measurement, and enhancing both assessment quality and interpretation of outcomes in context (p. 254).

A further consideration is any interaction between the proposed form of assessment and the student's impairment. One example is the expectation that students with an attention disorder will be able to focus on an examination or task for an extended period of time. At a more complex level, the previous example of the construction of shape by blind persons may mean that assumptions about what is being demonstrated need to be examined. Is it appropriate to have the same English linguistic fluency expectations, grading criteria and standards for students with hearing impairment and students without such impairment? Do different internal language structures lead to different but socially-acceptable forms of expression.

Reporting

The act of assessment does not end with completion of an assessment activity and evidence collection. It ends

when evidence and outcomes obtained from the assessment are used for a purpose. As we are discussing summative assessment for students with impairment, we assume some form of formal reporting to students, parents and family, and community will occur. Summative assessment also has an important role to feed-forward into further learning.

Reporting can occur through visual presentations, for example, student demonstrations or performances at the end of extended study in languages or the creative arts, or science experiments. More traditional reporting occurs through report cards where information is provided on learning goals and students' levels of achievement outcomes. This area still needs careful equity consideration.

In many instances, reporting for students with impairment will be on the same learning expectations and assessment forms and outcomes as for other students. For students for whom learning expectations are modified to suit their needs and level of knowledge, the report needs to demonstrate the nature of modification that has occurred, whether work at a lower stage of schooling for age-related peers, or at the same stage of schooling with modification. Components may be modified; alternative outcomes may be added. It is not educationally appropriate to deem a student to have achieved learning they cannot demonstrate. It is also not educationally-appropriate to continually report across years of schooling that students with impairment have failed to succeed on learning expectations that for whatever reason were not appropriate in the first place.

There may be aspects of learning that the student with impairment is able to demonstrate with assistance but not unaided. These details can also be recorded on reporting.

Moderation

The Queensland high stakes senior assessment system described earlier makes use of processes of moderation of evidence of student learning, based on teacher judgement and teacher-designed classroom assessments, within a structured syllabus framework and identified performance standards. Moderation processes respect teachers' professional judgements but hold them accountable for those judgements. This accountability is tridirectional – horizontally to teacher peers, upwards to the certifying authority, and downwards to students. Its essence is transparency: understandings of and agreement on performance standards are transacted through collaboration with other teachers; advice to schools on alignment of their standards must be heeded; teachers must be able to justify their assessment judgements to their students. This transparency is an essential component of a system that is responsive to diversity within the constraints of defined learning goals and performance standards. The transaction of common interpretations of performance standards allows the building of teachers' guild knowledge to support consistent and comparable application of standards, which in turn can be shared with students to support their own goal-directed learning.

The formal moderation processes of the Queensland senior assessment system belong to a form that has been labelled 'social moderation' (Linn, 1993, 1996; Maxwell, 2010). Such moderation is the examination of evidence of student learning against common expectations and standards to provide comparability of grades. In the Queensland system, in the final years of schooling, moderation is managed by the central agency, the QSA, using peer (teachers) review within subject disciplines. While the end focus of the moderation is on samples of student portfolios, many checks and balances are in place to establish equivalency of learning goals

and content against state-based syllabuses, prior to school-based assessments occurring (Maxwell, 2010; QSA, 2012a).

We suggest social moderation as the mechanism through which teachers and schools in any context can ensure equitable judgements of the learning of students with impairment, allowing curriculum content to be modified, and assessment forms and evidence to differ, to suit the needs of individual students. Moderation is recognized as a method for implementation of 'alternative' assessments for students with impairment under the U.S. No Child Left Behind accountability assessment requirements (Kleinert et al., 2009).

The degree to which moderation is needed depends on whether assessment outcomes and reporting are considered high stakes or low stakes. Low-level moderation can occur among teachers of all students at a particular year level, within a school or across a cluster of schools. At its simplest, this consists simply of shared conversations about standards based on examples of actual student work. Technology enables moderation to occur across sites without extensive travelling by teachers, enabling geographically-isolated teachers to have professional conversations and confirm their interpretations of assessment standards and quality of student work with others. As the stakes for common interpretation of the assessment and reporting outcomes become higher, more control is needed on commonality of learning expectations, frameworks of quality standards, and comprehensiveness of evidence.

Teachers moderating student assessment outcomes need to consider tradeoffs in performance profiles and alternative learning expectations. Consistency does not emerge overnight. Persistence is important but provides considerable payoffs: through the communities of practice that develop; the commonality and consistency of judgement of learning outcomes that emerge; and the opportunities for equitable assessment of the learning outcomes of all students through naturalistic and contextualized accommodation to their learning needs.

CONCLUSION

If the flowchart of considerations in Figure 34.1 is applied, we posit that equitable assessment judgement of the achievement of students with impairment can be achieved, equitable assessment that addresses diversity and requires equivalence of assessment form and evidence, not sameness. It will allow students with impairment to maximize both their learning and demonstration of that learning.

National and international policy and goals to meet educational needs of students with impairment are not just focused on the right of these students to full participation in education. Economic arguments are made that, through meeting the needs of students with impairment, their opportunities to participate in further education and obtain employment will be enhanced, leading to economically stable society and reducing their dependence on others. The United Nations' 2007 *Convention on the Rights of Persons with Disabilities* (CRPD) recognizes the rights of individuals with disability to full enjoyment of life opportunities without discrimination, a much broader goal.

Education plays a powerful part in shaping future opportunities. Even in Australia, with strong policy intentions for inclusive education, at the time of writing, only 62% of students with a disability completed secondary schooling compared to 78% of students without a disability (Australian Bureau of Statistics [ABS], 2011, pp. 1, 2). Restrictive educational assessment practices can reinforce low self-esteem and construct

failure, in turn translating into early school leaving and limiting further training and employment.

In this chapter, we advocate an assessment approach for all students that focuses on rich learning and valid assessment, with social moderation by teachers of their judgements of evidence of student achievement to enhance reliability of those judgements. The student with impairment has to be central to the decisions made about how they can demonstrate their learning. Our favourite statement comes from an 11-year-old boy with severe vision impairment, Jack McPadden, who already held a junior black belt in a martial art, interviewed while attending a dance lesson:

> … I can do basically anything that a sighted person can do, as long as it is modified for me, I could even fly a plane – someone just needs to direct me. Something that should not even be asked is, can he? Of course he can. Absolutely. (Kahn, 2011, p. 31)

Our role in educational assessment is to provide opportunities, not barriers.

NOTES

1 Six 'interdependent' principles are stated for exit assessment:

- Information is gathered through a process of continuous assessment;
- Balance of assessment is a balance over the course of study and not necessarily a balance over a semester or between semesters;
- Exit achievement levels are devised from student achievement in all areas identified in the syllabus as being mandatory;
- Assessment of a student's achievement is in the significant aspects of the course of study identified in the syllabus and the school's work programme;
- Selective updating of a student's profile of achievement is undertaken over the course of study;
- Exit assessment is devised to provide the fullest and latest information on a student's achievement in the course of study (QSA, 2010a, p. 15).

2 Students in Years 11 & 12 can study 'Authority-registered' subjects and vocational education units in addition to 'Authority' subjects. Social moderation processes apply only to Authority subjects. Other subjects and units have different quality control processes. Students with impairment may also follow Individual Education Plans.

3 Information on the Queensland system is available from the Queensland Studies Authority (www.qsa.edu.au), including the DVD recording '*School-based assessment and moderation in Years 11–12: The Queensland experience*', which explains the system and outcomes for teachers and students.

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Phases of education

35

Instructional and Assessment Accommodations in the 21st Century

Martha L. Thurlow

Inclusive education for students, including students with disabilities, has been a global effort for several decades (e.g., OECD, 1997). Accompanying these efforts have been goals for not only inclusion but also increased literacy and post-school success for students formerly excluded from educational systems.

A trend toward increased attention to accommodations for instruction and assessment has accompanied these efforts. This attention started in the early 1990s in the US and later in other countries (e.g., Davis & Dempsey, 2011) as educational systems moved to a focus on standards-based approaches (Elmore & Rothman, 1999). Standards-based approaches took hold across the globe (Schmidt, Houang, & Shakrani, 2009), as did attempts to describe international benchmarks and how students in various countries were performing (Achieve, 2010; Feuer, 2012; NGA, CCSSO, & Achieve, 2008; OECD, 2009, 2011). In common was the belief that children in the educational system should attain a common set of educational outcomes defined by specific content standards, goals, or curricula. Also in common was a belief that there needed to be a system for measuring the performance of all children, and a way to hold schools accountable for their success.

The participation of all children in educational assessments used for accountability purposes has pushed educators and policymakers alike to think about how students with disabilities can participate in instruction and assessments in ways that get around the barriers that may be created by their disabilities while at the same time promoting learning and producing valid assessment results (Bolt & Roach, 2009; Davies & Dempsey, 2011; Laitusis & Cook, 2007; Thurlow, Lazarus, & Christensen, 2013). It also has pushed educators to more carefully consider what occurs in the classroom during instruction and during classroom tests to ensure that students' disabilities do not interfere with their learning of critical knowledge and skills. Accommodations were viewed first as the solution to these challenges. Over time, other approaches such as universal design (Rose & Meyer, 2006) have been added to ensure that, to the greatest extent possible, special education students benefit from the instruction they receive and are able to demonstrate their knowledge and skills on assessments.

Theoretically, accommodations are viewed as a means to increase students' access to instruction and the validity of results from assessments for students who have disability-related barriers that interfere with their ability to access instruction or to demonstrate their knowledge and skills. The theory has been defined most clearly in relation to assessments, via the notion of 'differential boost'. As explained by Laitusis:

> Differential boost indicates that students with disabilities receive significantly larger gains in overall test score … from an accommodation than students without disabilities gain from the same accommodation. It is important to note that both groups can receive improved test scores from the accommodation, but the gains for the students with disabilities are differentially larger. (2007, p. 67)

This theory (see also Fuchs & Fuchs, 1999; Sireci, Scarpati, & Li, 2005) is a contrast to previous theoretical approaches that indicated that to be appropriate, an accommodation must not alter what the test intended to measure, nor prevent comparisons to be made between students who did and did not receive accommodations, nor even produce any increase in the scores of students without disabilities (Phillips, 1994). The differential boost approach has been used both to determine which accommodations are useful for instruction (Elliott & Thurlow, 2006) and to identify assessment accommodations that do not change the construct being measured.

The purpose of this chapter is to examine both the history and theory of accommodations, and how these are propelling the field to a refined concept of accommodations for the future. I address changing definitions of accommodations and related terminology, along with policy and legal considerations related to accommodations. I also address implementation issues in the provision of accommodations. I summarize research on accommodations, both instructional and assessment accommodations, and conclude by noting the future of accommodations.

DEFINITIONS

Accommodations are changes in instructional and testing environments that remove irrelevant barriers for students with disabilities. When used in instructional environments, the emphasis is on providing access to the content, but whether that access might compromise the content may be viewed as less important when the accommodations provide scaffolding for students; professionals addressing changes that provide access to the general education curriculum refer to adaptations, augmentations, alterations, and a host of other terms, with little consistency in definitions (Bolt & Roach, 2009; Ketterlin-Geller & Jamgochian, 2011; Nolet & McLaughlin, 2005; Wehmeyer, 2003). When used in assessment environments, much greater emphasis is placed on removing sources of irrelevant variance to produce valid results about students' knowledge and skills (Koretz, 2008).

Current definitions make a distinction between changes that alter the construct being taught or measured and those that do not. The term 'accommodation' is used to indicate those changes that *do not change* the construct whereas the term 'modification' is used to indicate those changes that *do change* the construct (Bolt & Roach, 2009; Thurlow, 2007; Thurlow et al., 2013).

Accommodations and modifications often are organized into categories of change – presentation (e.g., Braille editions, reading text to the student), response (e.g., pointing, speech-to-text, calculator), timing/scheduling (e.g., extended time, best time of day), and setting (e.g., small group, separate room) (Ketterlin-Geller & Jamgochian, 2011; Thurlow, 2007; Thurlow, Elliott, & Ysseldyke, 2003). Nolet and McLaughlin (2005) identified alternative acquisition modes, content enhancements, and alternative response modes as types of instructional accommodations; for modifications, they included teaching less content and teaching different content. With increased use of computer-based learning and assessments, the need for categories of accommodations and modifications has been questioned. Recent accommodations manuals developed for computer-based environments have simply listed accommodations alphabetically (see Christensen, Carver, VanDeZande, & Lazarus, 2011).

Definitions of accommodations have changed over time. In the early 1990s, the emphasis was on providing access to instruction and assessments, with little concern about the validity of results. Tindal and Fuchs (1999)

used the phrase 'leveling the playing field' to describe the role of accommodations in assessment. The critical element of early definitions was focused on making sure that students were participating in both instruction and assessments, essentially equating 'accommodations' and 'modifications' (AERA, APA, & NCME, 1999). This definition was changed during the revisions of the *Standards*, and in the 2011 version available for public comment the definition of accommodations was as follows:

> Changes to test content, format or administration conditions for particular test takers that do not change the construct being measured but do remove construct-irrelevant contributions to test scores that would otherwise exist for these individuals. (p. 1 of Glossary)

The definition of modification/modified test was:

> A change in test content, format and/or administration conditions that is made to increase accessibility for some individuals but which affects the construct measured and, consequently, result in scores that differ in meaning from scores from the unmodified assessment. (p. 10 of Glossary)

These refinements in definition reflect increased recognition that accommodations are an important part of ensuring that students have access to the same general education curriculum as their peers, and that accommodations can help to produce valid results – results that are more accurate than those obtained when a student does not use accommodations (Koretz, 2008; National Research Council, 2004; Thurlow et al., 2013).

At the same time that the definitions of accommodations and modifications were being clarified, there was a move to better define the concept of 'universal design' as applied to instruction and to assessment (Bolt & Roach, 2009). Universal design for learning (UDL) was described by Rose and Meyer (2006) and others at the Center for Applied Special Technologies (CAST, 2012). Universal design of assessment was described by Thompson, Thurlow, and Malouf (2004) as the application of the universal design principles identified by the Center for Universal Design (1997). In general, these terms were used to refer to the concept of thinking about and planning for the widest range of students when developing instructional materials or assessments.

POLICY AND LEGAL CONSIDERATIONS

Policy development and legal actions are an important part of ensuring that accommodations are available for instruction and assessment. In the US, the policy discussion started with the focus on the inclusion of students with disabilities in educational structures. This is similar to the policy focus in other countries (Ainscow, Booth, & Dyson, 2006; Angelides, 2005; UNESCO, 2012) that are working to ensure that educational opportunity is available to all students.

The push in the US became most evident in the enactment of the Education for All Handicapped Children Act (EHA) in 1975 and its requirement for all students with disabilities to have access to a free and appropriate public education. As students with disabilities were increasingly included not just in the same school building as other students, but also in the same classrooms as well, attention turned to ways to ensure that these students had access to the curriculum, including the accommodations needed to take in and respond to information.

Over time, education laws increased their emphasis on accommodations for instruction and assessment. Because of requirements to provide documentation of accommodation policies in the Elementary and Secondary Education Act, and to count the number of students using accommodations for assessments in the

Individuals with Disabilities Education Act of 1997, the focus on assessment accommodations increased dramatically in the US.

Although the belief was that instructional accommodations should drive the provision of assessment accommodations, in reality, the direction was the opposite. The need for accommodations for assessment increased the considerations and implementation of instructional accommodations (Elliott & Thurlow, 2006).

To some extent, progress that was made in the provision of instructional and assessment accommodations in the US was a consequence of several legal challenges to the provision of these accommodations. Sometimes legal challenges arise because of unclear policies or policies that appear unfair to particular students. Many disputes are settled through mediation or out-of-court settlements. These cases, as well as those that end up in courts of law, have influenced the provision of accommodations. Most cases that have gone to court in the US have involved a graduation level exam where there are consequences for students (*Breimhorst v. ETS*; *Chapman/Kidd v. California Department of Education*; Disability Rights Advocates, 2001; *Noon v. State of Alaska*).

IMPLEMENTATION ISSUES

Implementation issues span a range of challenges, including: (a) the transition from high school to post-secondary educational institutions where policies may differ, (b) the difficulty of making decisions about accommodations needed by individual students, and (c) challenges in providing accommodations to the students who have been designated as needing them.

Transition between K-12 and post-secondary settings. Gregg (2009) noted that the provision of appropriate accommodations is the foundation for successful transition to and graduation from college. Yet, students with disabilities have differential access to accommodations in K-12 education compared to post-secondary settings (see Hadjikakou & Hartas, 2008). Banerjee and Thurlow (2012) highlighted several of the differences that exist between K-12 and post-secondary education settings in the purpose of, eligibility for, and nature of accommodations.

Accommodations are provided in the K-12 education system to ensure that students have access to instruction and that their assessment results are valid (Lazarus, Thurlow, Lail, & Christensen, 2009). A team determines which accommodations a student needs and they are provided, sometimes without the student's knowledge. Extensive efforts have been made to improve accommodations decision making in K-12 educational systems (e.g., Christensen, Carver et al., 2011) following findings that little training of decision makers had occurred prior to these efforts (Langley & Olsen, 2003). When students leave the K-12 system, the provision of accommodations is driven more by concerns about discrimination on the basis of disability (Office of Civil Rights, 2007). A recent Government Accountability Office (2011) study confirmed the challenge for students who were accustomed to using certain accommodations and then were frustrated when seeking the same accommodations from testing companies that determine which accommodations can be used for college entrance exams and professional certification tests; students found the documentation requirements to be 'difficult to understand and unreasonable'.

In post-secondary education systems, students must disclose their disability to a disability office to determine whether they are eligible, and then whether they can receive specific accommodations. Further,

there is variability across post-secondary institutions in the process used for determining eligibility (Lindstrom, 2007). Although some efforts have been made to develop guidelines for the post-secondary level (Madaus, Banerjee, & Hamblet, 2010), the extent and success of these efforts are limited.

There is some evidence that there are changes in higher education that may make the transition between K-12 and post-secondary smoother. For example, a study in Israel on the knowledge, attitudes, and willingness of higher education teacher education faculty toward students with disabilities and providing accommodations (Leyser, Greenberger, Sharoni, & Vogel, 2011) found that attitudes toward these students were positive, and willingness to provide accommodations was quite high. The perception that accommodations improved students' success rates was found to be higher than a decade earlier. Still, faculty were concerned about the fairness of accommodations, both for instruction and assessment, and more so in 2006–2007 than in 1996–1997. The authors indicated that several demographic variables were related to attitudes (e.g., newer faculty expressed more positive attitudes, faculty who had personal contact with individuals with disabilities or training in the area of disabilities were more willing to provide accommodations), and suggested that it is important to continue to study higher education faculty perspectives, in part because of increasing numbers of students in higher education in many countries (Gregg, 2009; Laucius, 2008; Powell, Felkandorff, & Hollenweger, 2008; Pumfrey, 2008; Ryan, 2007).

Making decisions about accommodations needed by individual students. Another challenge that has plagued the implementation of accommodations in K-12 education is the difficulty of making decisions about accommodations needed by individual students (Elliott & Thurlow, 2006; Salend, 2009), both for instruction and assessments. Several studies indicated that decisions made by Individualized Education Program (IEP) teams were not as individualized as they were supposed to be (DeStefano, Shriner, & Lloyd, 2001; Hollenbeck, 2002; Ketterlin-Geller, Alonzo, Braun-Monegan, & Tindal, 2007; Rhode Island Department of Education, 2003). For example, instructional accommodations noted in IEPs were just as likely to not be used during instruction as they were to be used. Logistical issues during instruction and testing location during assessments often were more important determinants of the accommodations provided to a student than what was listed in the student's IEP (e.g., if one student at a location needed the test read aloud, then all students at that location would receive the test read aloud).

Providing accommodations to students needing them. Researchers have repeatedly found that decisions made by IEP teams do not necessarily get transferred to instructional or testing environments (Fuchs & Fuchs, 1999; Hollenbeck, Tindal, & Almond, 1998; Ketterlin-Geller et al., 2007). To some extent, these concerns have been addressed through increased monitoring of accommodations (Christensen, Thurlow, & Wang, 2009), yet there remain concerns about the logistical challenges of implementing accommodations when too many students need ones that require human providers (Elliott & Thurlow, 2006; Landau, Russell, Gourgey, Erin, & Cowan, 2003). The increased provision of instruction and assessment via computers should reduce the logistical concerns associated with accommodations (Thurlow, Lazarus, Albus, & Hodgson, 2010), particularly if what was previously considered an accommodation becomes an embedded feature of the instruction or assessment (NCEO, 2011a; Russell, 2011).

RESEARCH ON ACCOMMODATIONS

In the early 2000s, considerable federal funding was provided in the US to support research on the effects of assessment accommodations. The increased research, particularly in the K-12 US system, has continued despite reductions in federal funding for this type of research. Research in other countries has increased as well.

Most of the research that has been conducted on accommodations has focused on assessment accommodations. Although much less frequent, there also has been research on instructional accommodations. Some of this research attempted to determine the effectiveness of specific instructional accommodations. For example, Haydon and colleagues (2012) examined the effects of using iPads versus worksheets in high school math classes for students with emotional disabilities. Although including a very small number of students (n = 3) and relying on visual analysis of results, they concluded that 'students solved more math problems correctly in less time and demonstrated higher levels of active engagement in the iPad condition as compared to the worksheet condition' (Haydon et al., 2012, p. 232).

Most research on instructional accommodations has focused on which accommodations have been provided to students with disabilities, and whether these are consistent with accommodations specified for the student and are provided as intended, as well as the extent to which students use the accommodations that are provided. Zentall and Stormont-Spurgin (1995), for example, examined the educators' accommodation preferences for students with attention deficit hyper-activity disorders. They found that special education teachers provided a higher number of accommodations and believed that they were more successful with them than general education teachers. Among the more frequently tried and successful accommodations were those involving child involvement (e.g., note-taking, use of magic markers, standing during seatwork, etc.) and classroom structure (e.g., work with partners, group projects, etc.). Other categories investigated by these researchers were change standards, instructional methods, input/output responses, consequences, and outside support.

Byrnes (2008) examined the ways in which educators interpreted ambiguous accommodations, and found that there was considerable variation in interpretation of the changes intended by scribing and preferential seating accommodations. She concluded that the varied interpretations had implications for professional development (e.g., providing functional descriptions of changes rather than simply naming an accommodation, tying accommodations more directly to barriers that students with disabilities encounter in instruction).

Research on assessment accommodations generally has produced inconsistent results on the effects of accommodations (Cormier, Altman, Shyyan, & Thurlow, 2010; Fuchs & Tindal, 1999; Johnstone, Altman, Thurlow, & Thompson, 2006; Rogers, Thurlow, & Christian, 2012; Thompson, Blount, & Thurlow, 2002; Zenisky & Sireci, 2007). Approaches that have been used include factor analyses, differential item functioning analyses, and most often, differential boost studies (Laitusis, 2007; Sireci et al., 2005). Further, a relatively small subset of all possible assessment accommodations has been studied, such as extended time, audio administration, and computerized administrations. Thurlow et al. (2013) summarized the research published from 2000 – 2010 on each of these accommodations. They concluded that conclusive evidence did not exist for either extended time or oral administrations (particularly if the content area is reading). Computerized administrations seemed to provide a boost for all students, suggesting that these might be appropriate for all students.

Several studies have studied accommodations for various types of disabilities. For example, Peltenburg, van den Heuvel-Panhuizen, and Doig (2009) investigated cuing and technology use in mathematics for students with intellectual disabilities. Cawthon (2006) conducted a survey on the accommodations used by students who were deaf or hard of hearing. Lee, Osborne, Hayes, and Simoes (2008) studied pacing for students with attention deficit hyperactivity disorders, and Horvath, Kampfer-Bohach, and Kearns (2005) examined accommodations and deafblindness.

The generally inconclusive results of research on assessment accommodations may reflect the difficulty of conducting experimental research on accommodations. Students who need accommodations generally need more than one accommodation, but allowing for multiple accommodations in research confounds the possibility of finding the effects of a single accommodation (Thurlow, 2013). Further, studies generally provide accommodations to all students with a specific disability such as a learning disability, even though these students do not all need the same accommodations. Failure to target accommodations to those students with disability characteristics that indicate a need for certain accommodations is a major challenge to research on the effects of accommodations.

It is possible that as studies become more targeted and clearer about who the targeted students are, findings will become clearer. There is some evidence of this in studies of the read aloud accommodation published in 2009 and 2010, where most of the studies showed differential boost on assessments of reading comprehension for students with reading-based learning disabilities (Thurlow, Christensen, & Rogers, 2012). Recent research also has focused on the effects of motivational factors and their relationship to the effects of accommodations (Feldman, Kim, & Elliott, 2011; Salend, 2011).

ACCOMMODATIONS IN THE FUTURE

Policy development, legal activity, and research efforts have pushed accommodation practice forward dramatically. Policy and practice pushes underway in many countries are likely to continue to propel accommodations forward in the 21st century. Among the most pressing issues that should be addressed are: (a) need for consistent policies and practices as educational instruction and assessment moves to increased use of technology; and (b) continued need for professional development for decision making about accommodations.

Consistent policies and practices in increasingly technology-based systems.   With the apparent increase in technology use for instruction and assessment, there will be a need for consistent policies and practices in determining what should be part of the instructional and assessment processes for all students (even though perhaps previously considered to be accommodations) (NCEO, 2011b) and what is still considered to be an accommodation (Madaus, Russell, & Higgins, 2009; Thurlow et al., 2010). This shift is perhaps nowhere so evident as it is in a policy initiative now under way in the US. In 2010, the U.S. Department of Education provided funding to consortia of states to develop common regular assessments for all students, including those with disabilities. These consortia of states must address the same issues that individual states have addressed, although they must do so using computer-based platforms. In addition, they must determine their accessibility and accommodations policies and reach agreement on these in multiple states that before had widely divergent policies and practices (Christensen, Braam, Scullin, & Thurlow, 2011).

Given the variability in the percentage of students using accommodations in states (NCEO, 2011a), reaching agreement on accommodation policies is likely to be a challenge. Yet, it is also an opportunity to clearly define the construct being assessed, which in turn will allow for clearer specification of the accommodations that produce valid results (Johnstone & Thurlow, 2012). The greatest challenge may occur for the development of accommodation policies for the assessments in which students with significant cognitive disabilities participate (Albus & Thurlow, 2013). Similar challenges will exist as consortia think through accommodation policies for English learners, particularly those English learners with disabilities (Albus & Thurlow, 2008).

Directly connected to accommodations and the notion of construct clarification is the idea that assessment developers must look more carefully at the design and development of assessments and test items from the beginning to be sure that they can be accessed by the largest number of students. The term 'universal design' has been used to convey the notion of 'optimal standard assessment conditions' (Thompson et al., 2002; Thompson, Johnstone, Anderson, & Miller, 2005). This concept has been extended as states have moved from paper and pencil assessments to computer-based assessments (NCEO, 2011a; Russell, 2011).

Although these efforts are focused on assessment systems, they are likely to affect instructional practice as well. In the US, this is already evident in various initiatives to ensure that students with disabilities have access to the instruction and accommodations needed to reach the new standards on which the consortia assessments are based (McLaughlin, 2012; Thurlow, 2012; Thurlow & Quenemoen, 2012).

Professional development for decision-making about accommodations. The most challenging aspect of accommodations continues to be making good decisions about who needs accommodations and which accommodations they need. To make good decisions, there needs to be clarification of the access and target skills associated with instruction and assessment (Bolt & Roach, 2009; Gregg, 2009; Ketterlin-Geller, 2008). In the early 1990s, there was little preparation for IEP teams making decisions about accommodations (Fuchs & Fuchs, 2001; Shriner & DeStefano, 2003). No matter the sophistication of research on accommodations and the validity of scores from accommodated assessments, if educators and teams of decision makers cannot make good decisions, then the research-based knowledge is not sufficient.

Studies have shown that decision making can be improved through training and systems that assist in producing data-based decisions (Fuchs & Fuchs, 2001; Ketterlin-Geller et al., 2007; Ruble, McGrew, Dalrymple, & Jung, 2010; Shriner & DeStefano, 2003, 2007). Most research has focused on making decisions for assessments, but some has examined the effects on instruction (e.g., Spooner, Baker, Harris, Ahlgrim-Delzell, & Browder, 2007). Ketterlin-Geller and Jamgochian (2011) specifically addressed accommodations and modifications as mechanisms for improving the accessibility of instruction. They distinguished between differentiated instruction – 'an instructional approach that intentionally adapts instructional design and delivery methods to support student learning of instructional objectives' (p. 132) – and instructional accommodations and modifications. Similar clarifications have been made about response to intervention approaches (VanSciver & Conover, 2009).

Others have specifically examined ways to provide professional development to teachers in inclusive general education settings (Schumm & Vaughn, 1995). Their initial findings highlighted the challenges that exist in providing successful professional development for these educators. Among the three lessons learned that they

highlighted were:

1. Professional dialogues are squelched when information dissemination is perceived as the primary goal …
2. Providing teachers with a menu of strategies described superficially or presented through simulation is not likely to impact instructional practice; teachers want and need to know specifically how to implement strategies in their own inclusion classrooms …
3. Preparing teachers to instruct students with disabilities involves more intensive preparation than traditional in-service professional development workshops will allow, and many teachers may not be willing to commit to such intensive professional preparation … (p. 350)

In addition, there is little evidence to indicate that students are being trained to become decision makers about their own accommodation needs, despite strong recommendations for this (Elliott & Thurlow, 2006). Students have informed opinions on which accommodations they are willing to use and which accommodations make a difference in their performance (Thompson, Thurlow, & Walz, 2000) – yet this valuable resource continues to be rarely tapped.

Professional development also is required for those who administer accommodations. Among these accommodations are the read aloud accommodation, the sign language interpreter, and the scribe (Cawthon, Winton, Garberoglio, & Gobble, 2011; Christensen, Braam et al., 2011). The potential for variability in these accommodations is great, and the need for standardization is important. Computers have tremendous potential for reducing the variability in administration of accommodations, but can introduce some additional challenges (Thurlow et al., 2010).

CONCLUSION

Accommodations have been the target of contention in assessments, and this is likely to continue. They are the avenue to access, yet they are the point of concern. Years of research on accommodations has not answered all the questions. The next decade of educational policy and practice throughout the world most likely will move even more toward designing and developing instruction and assessments from the beginning to be accessible for the greatest number of students (Johnstone, Thompson, Miller, & Thurlow, 2008; Ketterlin-Geller, 2005; Rose & Meyer, 2006). Indeed, accommodations issues continue to sharpen our definitions of access, constructs, and improved instruction and assessments in general. In fact, they have produced renewed attention to the importance of access to the general education curriculum and to opportunity for students to learn the same content as other students (Elliott, Beddow, Kurz, & Kettler, 2011; Kurz, 2011). Future developments will enable additional questions to be answered and are likely to have a positive effect on both assessment and access for students with disabilities.

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36

Teaching and Learning in the Early Years

Susan A. Fowler, Michaelene M. Ostrosky and Tweety J. Yates

Access to early care and education for young children, birth through age 5 years, has become a universal issue for families in today's world. The importance of these early years is well supported by research on the development of the brain (Olson, 2012; Shonkoff et al., 2011; Shonkoff & Phillips, 2001) on the link between high-quality programs and children's readiness for formal schooling (Pianta, Cox, & Snow, 2007), and on the econometric research showing that early programs ultimately save society money and contribute to the future workforce (Heckman, 2011). In fact, more than half of the world's countries now have a national early childhood program (Britto & Gilliam, 2008) with an increasing emphasis on stimulating development versus 'minding' children (Watson, 2012). Family and societal concerns are exacerbated when families have a child with a disability or developmental delay. Again, the research is clear that intervention during the early years can significantly influence the language, socioemotional, and self-regulatory development of children with special needs. The extent to which families can access intervention services and have the services integrated into early childhood programs has become a major focus of discussion and research (Guralnick, 2005, 2008).

Within recent years, many national organizations as well as international associations have developed basic guidelines or recommendations for the provision, funding, staffing, and access to services for all children. Within these guidelines, they also focus on meeting the needs of young children with disabilities or children at risk for developmental delays. The Association for Childhood Education International (ACEI), the National Association for the Education of Young Children (NAEYC), International Society for Early Intervention (ISEI), and the Division for Early Childhood of the Council for Exceptional Children (DEC), all United States-based, professional organizations with international memberships, have developed detailed recommendations, as well as program assessment tools, for setting minimum standards for early intervention, childcare, early childhood special education, and preschool education. These standards are aimed at improving the overall quality of services for young children and supporting the continued education and professional development of the teachers and caregivers who work with young children (Bagnato, McLean, Macy, & Neisworth, 2011). These standards enable others to evaluate the quality of a program and to recommend changes in practice, classroom environment, staffing, and health and safety issues. These common standards are increasing expectations that services for young children will be regulated, monitored, and supported at local and national levels.

Central to the guidelines proposed by these organizations is a focus on respect, tolerance, and acceptance of all forms of diversity, whether socioeconomic, cultural, ethnic, linguistic, gender, or family composition. Two international conventions reflect many of these guidelines. The Convention on Children's Rights (CRC), which became international law in 1990, supports 'children's right to survive, develop and be protected' (Britto & Gilliam, 2008, p. 88). The right of children to develop has been recognized as a fundamental part of early childhood services. That right serves as the guiding principle in many developing nations who are creating

early childhood programs. For instance, concerted efforts by the Chilean government between 2006 and 2009 have encouraged preschool enrollment nationwide, with the result that 85% of 4-year olds and 90% of 5-year olds receive early education services (Watson, 2012). Recently, the United Nations Convention of the Rights of Persons with Disabilities adopted a new definition of disability that focuses on the barriers that hinder full and effective participation in society by children and adults who have physical, intellectual or sensory impairments. It emphasizes the importance of equal participation and inclusion in society for all citizens, including children, and addresses disability as the manifestation of the interactions between the individual and the context in which they live. As such, disability is now perceived as a continuum influenced by biological factors, social issues, and environmental conditions, including access to health services. The convention, signed by 149 countries, functionally expands the concept of disabilities and provides support for equal participation in society on an international level (Halfon, Houtrow, Larson, & Newacheck, 2012). The two conventions have further strengthened the rights of all young children with and without disabilities to receive early education and intervention.

This chapter addresses services for young children with disabilities and their families by considering first those services provided during the infancy and toddler years (birth through age 2 years), and secondly through preschool years (ages 3–5) prior to entry into formal schooling. It examines international trends as well as current and emerging practices in the United States. The chapter also addresses the need to consider the increasing range of cultural and linguistic diversity found within many nations because of changes in world migration patterns.

The United States, Canada, and Western Europe have experienced extensive immigration over the past generation. With the increasing diversification of their populations and languages spoken, many assumptions and beliefs based primarily on Western European culture are clashing with the assumptions and beliefs of their immigrant citizens (Mayson, Backman, Harris, & Hayes, 2009). In the case of the United States, early childhood special education (ECSE) researchers have also focused on families whose cultural, linguistic, and ethnic/racial backgrounds have differed for multiple generations (e.g., Latino/a, Native American, African American, Asian American) from European American families, and the implications of those differences on access to and use of ECSE services (Barrera, Kramer, & Macpherson, 2012; Chen, 2011; Lynch & Hanson, 2011).

To provide appropriate services to families with young children with disabilities, families and providers must share both a common understanding of the range of typical child development and concept of disability. Recent research clearly illustrates that cultures vary on what constitutes the range of normal development, given culturally-based child rearing practices and beliefs, as well as what constitutes a disability (e.g., Bazna & Hatab, 2005; Sage & Jegatheesan, 2010). The willingness to acknowledge the existence of a disability and seek help outside of the family or immediate community is yet another issue (Rye & Hundeide, 2005; Santos & Chan, 2011). The increased awareness and development of tools to evaluate the extent to which existing practices, programs, or curricula are culturally and linguistically responsive and respectful is critical to their successful adoption and adaptation, not only across communities within a diverse nation, but also for international consideration (Guralnick, 2008; Lynch & Hanson, 2011). Additionally, increasing emphasis on evidence-based practices has focused attention of professionals on the current research literature for guidance on what types of service delivery models best fit their context (Dollaghan, 2007; Dunst & Trivette, 2009).

The DEC has surveyed the existing early childhood special education research to identify practices that have an evidence base and should be recommended to professionals and families (Sandall, Hemmeter, Smith, & McLean, 2005). The following section includes an illustrative vignette of a family who received early intervention (EI) services in the United States and discusses factors that influence the focus of services. In a later section, we will follow the family as they make the transition from EI services to early childhood special education services at age 3.

SERVICES AND MODELS FOR INFANTS AND TODDLERS

Mrs. Carter was concerned that her daughter Emily was not developing at the same rate as her older children. Emily was 18 months old and had not begun using words. In addition, she threw tantrums frequently when her daily routine changed or others didn't understand what she wanted. The mother contacted the local Early Intervention (EI) Program and was encouraged to bring Emily in for a developmental screening that week. The screening showed that Emily demonstrated significant delays in language and required a more extensive assessment. After the assessment, Mrs. Carter and her husband met with a multi-disciplinary team of professionals (speech therapist, and developmental therapist) who identified Emily's strengths and areas of need. They talked with the family about their priorities for Emily and services that would support the family. They developed a plan, called an Individualized Family Service Plan (IFSP) that established desired outcomes for Emily and her family. These included improvements in communication and a reduction in tantrums. It also included a family outcome, which was to participate as a family in community activities that included Emily. The family agreed to weekly home visits from a speech therapist and a developmental therapist.

The mother actively participated in the home visits, learning new ways to engage Emily in signing her needs and wants. The home visits also focused on playful ways to encourage Emily to interact with Mrs. Carter and to increase Emily's joint focus of attention. Mrs. Carter learned to use these strategies throughout the day so that Emily had many opportunities to sign her wants and needs and to enjoy pleasant interactions with her mother. The developmental therapist discussed various strategies for the family to use when taking Emily to community events, as well as other developmental issues, including family and cultural expectations around promoting child independence. Six months later, the family reported that Emily's tantrums occurred far less often and that they now could take her to community events in which her siblings were involved. Mr. and Mrs. Carter saw progress in Emily's ability to focus her attention and her ability to communicate through signing. The family and team discussed family priorities for the next 6 months and outcomes for Emily and her family. The Carter family reported that the EI services not only helped Emily, but also assisted the family in better understanding her developmental trajectory.

Figure 36.1   Carter family vignette

PHILOSOPHICAL AND POLICY ISSUES IN EARLY INTERVENTION

EI public policy in the United States evolved with the enactment of Public Law 99–457 in 1986 (Bruder, 2010; Dunst, 2012; Rous & Smith, 2011). This law reflected the central role of families in the early intervention process and the recognition of the effectiveness and cost benefits of early intervention. The law called for statewide EI service systems that would be comprehensive, coordinated, interdisciplinary, and family-centered to address the needs of very young children in the context of their family. The key components of this federal initiative have shaped present early intervention efforts, which have in turn

influenced and been influenced by international philosophies, policies, and practices (Bruder & Dunst, 2008; Giné, Vilaseca, Gràcia, & Garcìa-Dié, 2004; McWilliam, 2010; Pretis, 2009). The importance of the family likewise is noted in the mission statement of Eurylaid, the European Association on Early Intervention, which states, 'Early intervention pertains to the child as well as to the parents, the family, and broader network' (Heinan, 1997, p. 17, as cited in Carpenter & Russell, 2005). Similarly, the 2012 edition of the UK Special Education Needs Code of Practice ensures that parents can obtain information about services from one place, have a single assessment process for their child that addresses educational, health, and social service needs, and a unified plan. It recognizes the primary role of the family by defining working partnerships between parents and providers (see http://www/education/gov/uk/childrenandy oungpeople/send).

These statements reflect the philosophical shifts that have occurred in the past 20 years. Traditionally, services were professionally-driven with the professional recognized as the 'expert'. Services are now family-driven and family-centered, with the family recognized as the constant in their child's life and the most knowledgeable about their child. Families play an integral role in their child's EI services and are able to choose their preferred roles and level of involvement based on family structure, cultural and linguistic background, values and beliefs, resources, and priorities for their children (Hebbeler, Spiker, & Kahn, 2012; Trivette, Dunst, & Hamby, 2010). In the Carter family, the mother chose to be actively involved in all home visits, to learn new strategies to help her child, and to use those strategies throughout the day during typical family routines such as bathing, dressing, and shopping. She then shared information with her husband, who also learned to use these strategies.

Being true to a family-centered philosophy in the United States has meant moving from practices that were discipline specific to an interdisciplinary, collaborative approach. EI services are typically provided by a variety of professionals such as doctors, speech therapists, physical therapists, social workers, and developmental specialists. At one time, these services were fragmented, with families seeking services for each developmental and medical need of their child. Ideally, today's providers work as a team and plan together with the family to ensure a more collaborative, comprehensive approach to determining outcomes and creating services to best meet the complex and varied needs of young children and their families. Interventions are individualized, based on the child's strengths and needs and the family's priorities and concerns. This has led to services that are more strengths-based as opposed to deficit-based. This approach has moved the field away from using a medical model, which is less suited to joint decision-making and team processing, to more of a collaborative medical and educational community model. The family-centered approach is evident in many countries' descriptions of services, such as in India (Kaul, Mukherjee, Ghosh, Cattopadhyay, & Sil, 2003), in Australia (Johnston, 2003; Kemp & Hayes, 2005), in Portugal (Boavida & Carvalho, 2003), and in the United Kingdom (Carpenter & Russell, 2005).

Despite this philosophical shift to a more family-centered approach to EI, many challenges remain (Guralnick, 2011; McWilliam, 2012). The ways in which EI services are provided varies widely in frequency, intensity, and duration as well as in what setting and with what personnel EI services are provided. In addition, access to services is not always equitable because of funding and personnel issues (Hallam, Rous, Grove, & LoBianco, 2009). In many respects, policy has not yet caught up with and matched this philosophical framework for providing EI services. As noted by researchers involved in the U.S. National Early Intervention Longitudinal Study (NEILS), 'Although best practices have been repeatedly identified, the

actual realization of a comprehensive system that meets the needs of children and families remains an ambitious, but elusive goal' (Spiker, Hebbeler, & Mallik, 2005, p. 305). These challenges have raised concerns about the current status of early intervention and the ability to create systems to implement intervention as intended by law that are also responsive to current theory, knowledge, research and practice. The Carter family received their EI services in their home and worked with several providers during each home visit, which lasted between 30 and 60 minutes. The family was grateful for and pleased with the services but sometimes wished the visits could be longer and allow more time for practicing new strategies and having extra time to talk and ask questions.

Settings and contexts

Early detection of problems and delivery of appropriate interventions have been shown to improve developmental outcomes for children with disabilities as well as children at-risk for learning problems (Guralnick, 2011; Shonkoff & Meisels, 2000). The question is no longer whether early experiences matter, but rather how can we deliver services and provide early experiences that influence whether children get off to a positive or a vulnerable start in life. Currently, services are delivered in a variety of settings such as children's homes, childcare programs, hospital-based programs, and community playgroups. EI services differ in intensity, specificity, and frequency based on the needs of children and families as well as the funding and resources available to support service delivery. The differences in the way these services are coordinated and delivered often influence the effectiveness of programs, thus affecting outcomes for young children and their families (McWilliam, 2010). Another important component of service delivery and coordination is the successful transition of children and their families from one service or program to another (Fowler, 2010; Rous & Hallam, 2006). Transition planning should ensure continuity of services, minimize disruptions, prepare children and families for the next setting and meet legal requirements (Pianta et al., 2007). The Carter family's experience with transition from EI services to preschool-based services will be described later.

While there is a strong research base supporting preschool inclusion, it is only recently that EI providers are being required to provide services in natural environments (Bruder, 2010; Buysse & Hollingsworth, 2009; Campbell, Sawyer, & Muhlenhaupt, 2009). In the United States, natural environments are defined as settings that are natural or normal for the child's age peers who have no disabilities, and go beyond 'place' to also include families' everyday routines and activities. For example, settings may include the home, community centers, playgrounds, and childcare. Providers and families work together to determine outcomes and how activities within the child's or family's routines can be used to reach these outcomes (Woods & Lindeman, 2008). This is a radical shift from providing services at clinics and hospitals where families traveled to bring the child to the services and often were not included in the therapy sessions, which left them with no information on how to extend what the child was learning to the home environment.

Curriculum and methods

EI services are intended to facilitate and enhance the development of infants and toddlers who are at-risk or who have disabilities (Hebbeler & Spiker, 2011; Keilty, 2010). While there is great variation among programs

in how they support this goal, most are aimed at providing infants and toddlers with the best possible opportunities for optimal development. Infant development occurs best within the context of a relationship with the parent or family member. Such relationships are reciprocal, built on joint focus of attention and establish a strong contingent relationship between the child and parent. Typically, EI curriculum has a developmental focus, based on the notion that young children are active learners, that learning occurs during interactions with caregivers, and that young children's development is highly integrated and interrelated. While most EI programs have a core curriculum based on their program's philosophy, they also recognize that one curriculum will not fit the needs of all children and families. In fact, since the EI curriculum is often referred to as the child's individualized family service plan (IFSP), the curricular approach is typically individualized and leads to plans that are developmentally and functionally appropriate, that promote the needs and priorities expressed by families, and take into account the culture, values, and language of families (Epley, Summers, & Turnbull, 2011). Materials and activities are chosen to encourage active participation and engagement of child and parent and use everyday routines, activities, and family and community events as opportunities to facilitate learning. These types of activities and contexts are often referred to as naturalistic interventions (Keilty, 2010) and include such practices as responsive interventions (Dunst, Trivette, & Hamby, 2008), activity-based interventions (Pretti-Frontczak & Bricker, 2004), milieu teaching (Noonan & McCormick, 2006), and embedded learning opportunities (McWilliam, 2010).

The common element in each of these intervention strategies is that teaching and practice of new skills occur in the child's typical environment (home, childcare), using daily routines (meal times, arrival, and departure times at childcare, bath time, play time) and activities (attending community events, sorting daily objects, building with blocks) in which to practice skills. The teaching moment or opportunities become part of daily life for the child and family. Responsive interventions and milieu teaching occur when the child shows an interest in a toy, activity, or action, and the adult notices, responds and builds upon the child's interests. Activity-based interventions or embedded instructions are strategies that use an activity or routine in which the child is already engaged to prompt the child to use a newly learned skill (such as using new vocabulary or sharing toys) related to the ongoing event or activity. The first two strategies are responsive to a child's interest and emphasize following a child's lead. The second two strategies take advantage of a specific activity in which a child is engaged (e.g., playing in a sandbox) and use aspects of the activity to teach skills. Teaching parents and other caregivers to use these strategies, encourages them to use them throughout the day, extending the effectiveness of the EI visit well beyond a single hour.

Given that the development of the young child occurs largely in a social context and that positive relationships have a strong influence on a child's development and well being (Zeanah & Zeanah, 2009), intervention strategies should facilitate the relationship between both the professional and parent, and parent and child (Dunst et al., 2008; Keilty, 2010; Peterson, Luze, Eshbaugh, Jeon, & Kantz, 2007). Relationship-focused interventions support the competence and confidence of parents; they also strengthen parents' sensitivity, responsiveness, and ability to support their child's development. In Ethiopia, interventions designed to enhance the quality of parent–child interactions resulted in noticeable changes in parents' quality of interactions and in their perceptions of their children as active partners in interactions. Six years following the intervention, Ethiopian children had better school grades and were socially and emotionally better-adjusted than children in the control group whose families did not participate in the program (Klein & Rye,

2004).

Services to address development in terms of social, emotional, cognitive, and language gains tend to be indirect in some countries, which lack a strong educational infrastructure. For example, Rye and Hundeide (2005) describe a model developed in Africa to support and strengthen families by increasing the family's participation within the local community. While the program focused primarily on daily living problems and providing basic health training to families, they concluded that a critical outcome of these interventions was increased social acceptance of the child with special needs within the family and the community.

Many of the international programs discussed above embrace the philosophy of EI and implement family-centered, relationship-based practices. The variations in practice and the ways in which communities are engaged in supporting families with very young children with disabilities provide insights that are useful in many community contexts.

SERVICES AND MODELS FOR EARLY CHILDHOOD SPECIAL EDUCATION (ECSE)

Philosophical and policy issues in ECSE

The same legislation in the United States that created a program of early intervention services also mandated the expansion of educational services to all children, from ages 3 through 5 years, with disabilities. It further specified that services be delivered in the least restrictive environment. Previously, such services were provided by some communities and regions but not by others and often were available in classrooms serving only children with disabilities. With the provision of federal funding and an infrastructure to ensure ECSE services, the United States has moved to a systems perspective on children's development and service delivery. Given the interrelated nature of development and recognition of the extent to which early development occurs within the family context, recommended practices in ECSE include close collaboration among members of interdisciplinary teams and close collaboration with families in planning and delivering services (Sandall et al., 2005). The philosophy for ECSE services has developed congruently with the philosophy of EI services. Both share the belief that families know their children best and that families make a unique contribution to the family–professional partnership. Professionals work with families to access support, mobilize resources, and identify their existing strengths, concerns, and priorities toward meeting the developmental needs of the whole child. Through this strengths- and assets-based collaborative process, the competence and confidence of both families and professionals are enhanced. This is evident in other countries as well. For example, in Egypt, families and communities share the responsibility of services for young children with special needs, thus improving the quality, continuity, and cost-effectiveness of services (Khouzam, Chenouda, & Naguib, 2003).

Within ECSE programs, preschool children are viewed as active participants in their own learning. Play environments that support mutually pleasurable child–child and adult–child interactions are based on developmentally, culturally, and individually appropriate principles. According to Lifter, Mason, and Barton (2011), play 'is important in a child's experience, it provides a useful window for assessing development, and it is an important tool for intervention' (pp. 292–293). High-quality early childhood programs emphasize the importance of teacher–child interactions as the foundation for children's learning and development (Cassidy,

Hestenes, Hegde, Hestenes, & Mims, 2005; Dombro, Jablon, & Stetson, 2011; Hemmeter, Ostrosky, & Fox, 2006; Mims, Scott-Little, Lower, Cassidy, & Hestenes, 2008). Within early childhood contexts such as home, school, and the community, every moment that adults and children interact provides an opportunity to build positive adult–child relationships that are the basis for developing more advanced skills, such as early literacy (Rudasill, 2011; Rudasill & Rimm-Kaufman, 2009).

Across all domains of learning, motivation is key, for while most young children begin school with positive attitudes and expectations for success, some children soon develop feelings of indifference (Chang & Burns, 2005; Chienet al., 2010; Denham et al., 2012). Early childhood educators can create environments that support early achievement-related outcomes, such as persistence and feelings of self-competence. Astute teachers help children sustain feelings of competence by attending to changes in motivation and by supporting the development of positive adult and peer relationships. The value of emotionally satisfying relationships and the need for adult scaffolding to support learning that challenges, yet does not frustrate, children is the foundation of quality ECSE-teaching practices.

By age 3, Emily had received a diagnosis of autism. Before her early intervention services ended, Emily's parents and EI providers met with a multi-disciplinary team from the EI program and school district to create an Individualized Education Plan (IEP) for Emily. The IEP would support Emily's inclusion in a preschool and address her special education needs. Enrollment was available at the school district's early childhood center but Emily's parents chose a private program for several reasons: a) it was full-day and accommodated the parents' work schedules, b) her older brother was already enrolled there, and c) Mr. and Mrs. Carter believed that Emily would benefit socially from being surrounded by typically-developing peers. To meet Emily's special education needs, the IEP included speech therapy sessions three times a week, the involvement of an early childhood special education (ECSE) teacher who would consult frequently with the classroom teacher and assistant teachers to make sure that preschool activities were structured to meet Emily's needs, and a weekly visit and monthly observations from an occupational therapist to support Emily's fine motor development. The family and team developed a number of goals for Emily's first year, two of which focused on improving her ability to communicate with others and developing positive interactions with peers. Emily's new teacher, Ms. Rosa, had never worked with a child with autism but was willing and eager to do so, given support and advice from the ECSE teacher, Ms. Ames.

Prior to Emily's entry, Ms. Ames and Ms. Rosa met to discuss different strategies for helping Emily adjust to the new class, including rearranging the environment somewhat to have a quiet place for Emily to go, if she needed a break or needed to calm herself. The teachers also developed a picture schedule complete with photographs of daily activities and posted it for all children to see. Additionally, they made personal picture schedules for Emily that divided her day into three parts (arrival, daily activities, departure). Emily could use her schedule to follow the day and predict what activity typically followed another. During the first week of school, Ms. Ames arrived every day to help Ms. Rosa so that she could support Emily's entry into the classroom and involvement with activities. The two teachers met briefly each day to discuss what went well and situations that were problematic, so that they could come up with alternatives. Ms. Rosa found that the problem-solving opportunities helped her with Emily and her other students. The speech therapist always came into the classroom to provide services and often invited another child or two to join her with Emily for games that supported vocabulary development and syntax. The occupational therapist identified ways to modify activities to support Emily's participation and provided adapted materials for activities. Six weeks later, Ms. Rosa reported that Emily knew the class routines and schedule, and was using signs and a few words to communicate with the teachers and her peers. The parents spoke with Ms. Rosa at departure time many days when they picked up Emily. Mr. and Mrs. Carter were also satisfied with the support and Emily's progress so far. The two teachers and therapists acknowledged they still had more planning to do as they began to introduce new concepts and more social skills, but they felt confident in their collaboration. The parents acknowledged that Emily might require more intensive support for some skills in the future and that they would communicate frequently with Emily's teachers to monitor her progress and needs.

Figure 36.2   Supporting Emily

Preschoolers within any given early childhood class develop differently from one another and in uneven ways. Individualizing instruction is important when considering children's abilities and needs (Wolery & Hemmeter, 2011). Accommodating the variability among individuals within groups of children is a major challenge for any educator. Teachers must be vigilant to recognize challenging behaviors that may arise from a child's frustration, for if children are required to continually engage in tasks that are too hard, the resulting cycle of failure may be severe and rapid. Likewise, if children consistently participate in curricula tasks that are too easy, their progress may be impaired. Achieving a delicate balance of success and challenge through

negotiation of support is essential for nurturing young children's self-esteem and skill development.

Response to Intervention (RTI) is a relatively new framework adopted in the United States for school-aged children, and recently extended to preschool. It includes several key components: a) formative assessment, b) instruction and tiered interventions and supports, and c) collaboration and data-based decision-making (Fox, Carta, Strain, Dunlap, & Hemmeter, 2010). The principles that serve the foundation of RTI are: a) an emphasis on high-quality curriculum and intentional teaching for all children, b) the use of valid and reliable assessments aligned with early learning and program standards to make sound instructional decisions, c) the need for collaboration with families and professionals to guide decision-making, and d) the importance of intervening early with children who need additional instructional or behavioral supports. A tiered continuum of instruction and interventions or supports within RTI in early childhood typically includes at the base, a core curriculum and intentional teaching, aimed at all children. The middle tier, geared for some children whose progress has lagged behind their peers, includes targeted small group instruction or supports as well as increasing the frequency of embedded instruction during routine activities. The top tier, aimed at a few children with more pronounced needs, focuses on intensive, individualized interventions or supports. An RTI framework can help practitioners use assessment information to determine the intensity of interventions and supports that young children may need, and then implement these supports accordingly. One of the key principles of RTI is that children move between tiers based on their progress, as measured by ongoing monitoring. If a child does not show anticipated gains, only then is a referral made for special education evaluation and services (National Professional Development Center on Inclusion, 2012).

In the example of Emily Carter, her teacher noticed that Emily and two peers were not gaining many early literacy skills and their progress with recognition of the alphabet letters in their names was lagging well behind other classmates. Using the RTI framework, the teacher added a daily small group instruction time for the three children, which provided more intensive practice through the use of games, tactile materials and books. She monitored improvements in alphabet recognition and as the two peers showed printed name recognition comparable to their classmates, the small group sessions were discontinued. Emily however required a third level of support, which included one-on-one instruction for several months (Tier 3).

Settings and contexts

Preschoolers with special needs are enrolled in a variety of service delivery models including home visiting, school-based (e.g., pre-kindergarten), and community-based (e.g., childcare) sites. Quality programs often require collaboration among agencies. While some preschoolers are in self-contained special education programs, increasingly children with disabilities and other special needs participate in settings and activities with children without disabilities. In the United States, nearly half of all preschool children with disabilities, who are receiving educational services, are in some form of inclusive setting for the majority of their attendance day (Odom, Buysse, & Soukakou, 2011; U.S. Department of Education, 2011). Most likely many additional children participate in other recreation, childcare, or religious activities with typically-developing peers. As an example, Head Start, a compensatory early childhood program in the United States, is mandated to reserve 10% of its enrollment slots for children with special needs. In 2009, the two major early childhood organizations in the United States, the Division for Early Childhood (DEC) and the National Association for

the Education of Young Children (NAEYC), issued a joint definition and position statement on early childhood inclusion. The definition of early childhood inclusion espoused in this document is:

> Early childhood inclusion embodies the values, policies, and practices that support the right of every infant and young child and his or her family, regardless of ability, to participate in a broad range of activities and contexts as full members of families, communities, and society. The desired results of inclusive experiences for children with and without disabilities and their families include a sense of belonging and membership, positive social relationships and friendships, and development and learning to reach their full potential. The defining features of inclusion that can be used to identify high quality early childhood programs and services are access, participation, and supports. (Division for Early Childhood/National Association for the Education of Young Children, 2009)

As Odom et al. (2011) note, 'placement in a least restrictive environment is not sufficient to meet the intent of inclusion, but rather, participation, social relationships, and learning outcomes for all children are common goals' (p. 345).

Despite the strong research base on preschool inclusion and the increased availability of inclusive programs and services, a number of issues still remain. Odom et al. (2004) note that barriers to successful inclusion are complex and the quality of instruction, such as the provision of individualized and specialized training, often fails to adhere to recommended practices. Many of the problems related to preschool inclusion have to do with the definition of inclusion, the quality of services, the intensity and specificity of services as well as the creation of meaningful social experiences for children (Ellis, Tod, & Graham-Matheson, 2008). The infrastructure needed to ensure effective and sustainable inclusive services through ongoing professional development of staff and adequate funding must also be considered (Fowler, Yates, & Ostrosky, 2011). The changing demographics of the population of preschoolers with disabilities and the need to provide culturally appropriate and responsive services complicate the development and delivery of inclusive programs (Harry, 2008). In the example of Emily Carter, inclusion was successful because of the collaboration between the private preschool program and local school district, which provided staff to consult, provide professional development, and occasionally provide direct services to Emily.

Transition from preschool services to kindergarten can also be a point of disjuncture for some children and families. In the United States, the use of the individualized education plans (IEP) is intended to ensure continuity of services and supports for young children who leave preschool and enter primary school. However, changes in schools, staff, and therapists as well as an increase in class enrollment, can present challenges to successful adjustment. Practices to facilitate a smooth transition, particularly those that promote the transfer of information and communication between family and school and between sending and receiving schools have been recommended widely (Fowler, 2010; Petrakos & Lehrer, 2011; Rous & Hallam, 2012). These include providing written reports and records, inviting the family to visit the new teacher and classroom before school starts, and opportunities for teachers to observe one another's classrooms.

Curriculum and methods

A major purpose of preschool special education is to promote children's learning and positively influence their developmental trajectories. Typically ECSE curricula focus on social, communicative, cognitive, adaptive, and motor development. Peer relationships become more significant during the preschool years as does self-regulation. Children are expected to become more independent and to begin to take more responsibility for

controlling their own impulses and behavior.

Children's interactions with the social and physical environment are key to their learning and development (Horowitz & Haritos, 1998). Designing preschool environments that promote children's safety, active engagement, learning, and membership in the classroom community are important components of ECSE programs. Additionally, as Kaiser and Roberts (2011) note, there is a need to:

> Develop interventions that link early social communication to later spoken language; prevent problems in reading through early language intervention; integrate interventions to address communication, social skills, and behavior; improve strategies for teaching parents, teachers, and peers to be effective communication partners; and develop instructional approaches for Alternative and Augmented modes of Communication. (p. 305)

In our vignette, Emily received speech therapy with a small group of classmates to support her social communication (words and signs). Using the small group format also provided many structured opportunities for social exchanges with peers, therefore increasing the possibility of friendships forming between Emily and her classmates.

The field of ECSE is rich with empirical investigations to guide practitioners' decisions around organizing and influencing young children's experiences. Determining what individual practices are efficacious for which children has become a primary emphasis in ECSE research. Individualization, combined with specific procedures (e.g., peer-mediated interventions, behavioral momentum, prompt fading procedures), implemented in well-designed environments, are key to high-quality interactions. Today's trends include identifying and using practices that have a scientific research base established by multiple, published investigations (Odom, 2009). This remains a challenge as the translation of research into accessible, daily practice lags by several years. Our knowledge about variables that influence adoption of new practices is just emerging (Dunlap, Hemmeter, Kaiser, & Wolery, 2011). In addition, all phases of children's learning, from acquisition of a skill or concept to fluent and sustainable use of the skill or concept, must be considered in choosing practices. The extent to which a child can transfer or generalize a newly learned concept or skill across conditions, such as different play settings, and different adults and peers, must also be considered. Finally, the most sustainable interventions and procedures for teachers and parents are those that occur within familiar routines and activities, such as supporting vocabulary acquisition during daily snacks, story reading, riding in the car, and other natural opportunities for introducing new words and concepts (Wolery & Hemmeter, 2011).

In the United States, accountability and standards play an important role in instruction as practitioners determine how child outcomes should be measured in terms of gains and cost-effectiveness. The importance of ongoing monitoring to make data-based decisions, individualize, and adapt practices to meet the ever-changing needs of young children cannot be overstated (Fox et al., 2010).

CONCLUSION

In summary, many challenges continue to exist when providing intervention services to children and their families from the child's birth through school entry. Key issues that have been discussed briefly, include the need for an infrastructure within nations that provides financial, legal, and cultural support for the identification of children with disabilities as well as the provision of formal and informal supports to the

family, so that the child's developmental needs can be met within the context of the family and family's community. As noted by many authors, the services and philosophy of early intervention and early childhood special education has changed over the past 20 years, and will continue to change in order to fit the cultural and political context of each nation. For many developed, industrialized nations, services have become systemic, supported by national legislation, the development of initial preparation programs aimed at preparing qualified professionals, and the development of ongoing professional development opportunities for those already in practice (Eichner, Groark, & Palmov, 2011). The match between the vision of appropriate services and the actual delivery of services may remain uneven, based on the commitment of individual communities and the willingness or even awareness of families to access these services. Less-developed nations continue to struggle to provide the most basic medical and health services, but also are developing innovative practices that often rely on increasing family and community acceptance of children with disabilities.

The progress of developing and implementing special education services to a society's youngest members must also be considered within the context of improved rates of childhood survival. According to the World Health Organization (WHO), incredible progress has occurred during the past 3 decades in reducing by more than half the mortality rate for children under the age of 5 (WHO, 1998; 2012). WHO currently estimates that approximately 24 million low birth-weight infants are born each year; these along with the children with identified disabilities will be most in need of special education services to support optimal development throughout their childhood. The need for continued development of effective service delivery models (birth through age 5) remains pressing for the fields of special education and health and human services.

Returning to our vignette, we find that the Carter family felt more confident about Emily's future because of the consistent and individualized services provided during her early years. Mr. and Mrs. Carter recognize that Emily will likely need additional supports as she progresses through school and faces new academic challenges, but they also believe that the responsive relationships built between Emily and other adult providers have equipped Emily to engage actively and positively with future teachers, therapists, and peers. As parents, Mr. and Mrs. Carter know much more about what to expect in terms of services for Emily, and they can serve as her advocate with confidence and a strong sense of competence.

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Teaching Elementary Students with Learning Difficulties

Sharon Vaughn, Jeanne Wanzek and Carolyn A. Denton

Adequately addressing the instructional needs of elementary students with learning difficulties (LD) is the subject of literally thousands of books and hundreds of thousands of chapters and papers. Thus, to say that this chapter can only selectively address some of the more critical current issues states the obvious. The current trends and issues in teaching young children with LD include: the changing role of the teacher, response to intervention, and the features of instruction associated with improved outcomes for students with significant LD including aligning instruction with students' learning needs.

The past 20 years have seen large gains in our understanding of effective instruction for students with reading difficulties and disabilities (Denton, in press; Wanzek & Vaughn, 2007). Students with learning disabilities have been increasingly integrated into general education, and taught the same curriculum and held to the same standards as students without learning disabilities. Moreover, there is a growing understanding that traditional methods of identifying students with learning disabilities using discrepancies between scores on tests of intelligence and achievement are not valid. These three factors have contributed to fundamental changes in the role of the special education teacher, the nature of instruction and intervention provided to students with LD, and the relationship between general and special education.

In this chapter, we have described current trends and issues in the identification and education of students with LD. Special and general educators are likely to assume new roles in school-wide systems designed to provide high-quality classroom instruction and supplemental intervention to all students who need it, regardless of identified disabilities. Response to intervention within a school-wide system is becoming a recognized part of the identification of students with LD. Both general and special educators are likely to be engaged in activities that demand new sets of knowledge and skills.

Regardless of whether instruction and intervention are provided through general education or special education, or a combination of the two, it is imperative that educators in elementary schools have a deep understanding of strategies and practices that have demonstrated effectiveness for students with learning difficulties and disabilities in scientific research. This body of knowledge and skills is especially critical for the implementation of school-wide intervention models that will ensure success for the vast majority of students in our schools. Obtaining and sustaining this knowledge requires ongoing opportunities for teachers to participate in high-quality professional development.

OVERVIEW OF THE CHANGING ROLE OF THE SPECIAL EDUCATION TEACHER

Special education teachers' roles have paralleled the acceptance and accommodation of students with

disabilities in our schools. Initially, most special education teachers were not considered part of regular schooling. Like their students, they were separated from general education both in terms of where they taught (often in special schools or special areas within schools), what they taught (separate and different curricula), and how they taught (specialized techniques and practices not used by general education teachers). The boundaries between special and general education teachers were as sharply drawn as the lines between special and general education students. Most special education students were not afforded the same educational rights as students without disabilities, and many students with disabilities were excluded from public schools because they did not meet specific educational criteria. Currently, all students with disabilities are provided a free and appropriate education, and increasingly this education is provided within general education settings. In addition, there is an increased focus on the achievement and progress of students receiving special education services.

A HISTORICAL PERSPECTIVE

Historically, the role of the teacher who was previously referred to as the LD specialist (Vance, 1979) was to provide specialized, supplemental instruction in a student's areas of greatest need: often reading but occasionally several other academic areas. While these supplemental programs (often referred to as resource rooms) were found in almost every school in the United States (Deshler, Lowrey, & Alley, 1979; Larsen, 1976; McLoughlin & Kass, 1978), there was little written about what it meant to be a resource room teacher prior to the LD Leadership Institutes in 1970 (Kass, 1970).

Perhaps one of the earliest documentations of the role of the special education resource room teacher (most often the LD specialist) was an unpublished doctoral dissertation (McLoughlin, 1973) in which the author recorded through observation the role of teachers of students with LD and students with mental retardation. Students were provided services outside of the general education classroom through a diagnostic and remediation model. In 1976, Larsen defined three responsibilities most fundamental to the role of the LD specialist as: (a) developing and implementing procedures for accurately identifying students with LD, (b) planning and implementing effective instructional programs, and (c) establishing service delivery programs. These three issues are fundamental to the dialogue about students with LD today (Fletcher & Vaughn, 2009).

In what is considered the classic work on resource room instruction, Hammill and Wiederholt (1972) defined the ideal role for the resource room teacher as a 'decision-maker' who plans and provides instruction directly to students with LD and also provides consulting services to general education teachers who were primarily responsible for the education of students with LD. Furthermore, they identified the following competencies as essential to fulfilling the role of the LD specialist. The LD specialist should be able to provide: (a) individualized instruction, (b) educational and behavioral assessment, and (c) effective communication and consultation with parents and other professionals.

ADDITIONAL RESPONSIBILITIES

Today, as in the 1970s, the role of the special education teacher includes providing remedial interventions for students with academic and behavioral needs and supporting classroom teachers in enhancing outcomes for students with special needs (Brownell, Sindelar, Kiely, & Danielson, 2010). Increasingly, the special educator

serves as a consultant or co-teacher in general education settings. Both special education teachers and their students are increasingly attending general education classes, participating in general education curricula, and using practices that integrate general and special education instruction, providing most students with disabilities access to the general education curricula. Furthermore, many of the expectations that were typically held for general education students (for example, school completion, meeting state accountability standards) are also now expected of students who are provided special education. The boundaries between students in special and general education programs are blurred (Fuchs, Fuchs, & Stecker, 2010; Sindelar, 1995), and in a parallel fashion, the roles and responsibilities of teachers of students with disabilities have changed. General educators have assumed increasing responsibility for the education of students with disabilities, and special educators may now provide services to many students both with and without identified disabilities in many settings (see for case studies, Klingner & Vaughn, 2002; Wanzek & Cavanaugh, in press; Zigmond & Baker, 1995). General education teachers are increasingly more accepting of students with disabilities in their classrooms. In particular, they embrace the concept of students with disabilities coming with support from the special education teacher who can provide instructional assistance to all students in the classroom (Idol, 2006).

Now that many special education teachers work with students with LD as well as students with disabilities across multiple settings, there are new expectations for their roles and responsibilities (Klingner & Vaughn, 2002; Moody, Vaughn, Hughes, & Fischer, 2000; Vaughn, Moody, & Schumm, 1998). Some have expressed concern that the 'blurring' of special and general education is resulting in a lack of specific and appropriate instructional services for students with disabilities (Fuchs et al., 2010).

The emphasis on pre-referral intervention and on using the degree of student response to intervention as a factor in determining the presence of a learning disability (described below) is likely to have far-reaching effects on the relationship between special and general education. This relationship is currently evolving, but it is clear that special educators will be involved to varying degrees in activities such as: (a) screening students to identify those most at risk for learning difficulties and disabilities, (b) working with general educators to design classroom-based as well as supplemental instruction to meet the learning and behavioral needs of many students with and without identified disabilities, (c) providing intervention directly to students whose response to classroom-based intervention has been weak, (d) administering and interpreting progress-monitoring and diagnostic assessments to make instructional decisions, and (e) collaborating with colleagues in activities such as systematic problem-solving with the goal of improved outcomes for all students, those with and without identified disabilities.

THE CONSULTING TEACHER OR INSTRUCTIONAL COACH

Special educators may take on the role of providing instructional coaching or consultation to teachers who work with students with learning difficulties and disabilities. Coaching has become a popular model in schools (Deussen, Coskie, Robinson, & Autio, 2007; Moss et al., 2008) and is seen as an important current trend in professional development (Bean, Swan, & Knaub, 2003; Carlisle & Berebitsky, 2011; Deussen et al., 2007; International Reading Association, 2004) as well as in supporting a systematic school-wide approach to effective instruction and intervention for all students who experience reading difficulties (Carlisle & Berebitsky, 2011; Denton & Hasbrouck, 2009). Some models of coaching are closely aligned with models of

instructional and collaborative consultation (Denton & Hasbrouck, 2009).

Hasbrouck and Denton (2005, 2010) define a reading coach as 'an experienced teacher who has a strong knowledge base in reading and experience providing effective reading instruction to students, especially struggling readers' and who 'has been trained to work effectively with peer colleagues to help them improve their students' reading outcomes … and receives support in the school for providing coaching to other teachers, instructional assistants, parents, or administrators, as needed' (Hasbrouck & Denton, 2010, p. 1). This role demands expertise in areas that have not been traditionally included in the preparation of special education teachers, including: (a) an understanding of reading acquisition and causes of reading difficulties and disabilities, (b) a deep understanding of research-validated effective instruction and intervention for students at risk for reading difficulties, (c) the ability to interpret student assessment data to make instructional decisions both for groups of students (that is, classrooms or grade levels) and individual students, and (d) a high level of skill in collaboration and consultation, including skills related to systematic problem-solving, developing collaborative relationships, and providing effective feedback to teachers.

An instructional coach may serve in a variety of roles in a school (Carlisle & Berebitsky, 2011; Deussen et al., 2007). Related to students with reading difficulties and disabilities, coaches and consulting teachers may be called upon to:

- Observe reading lessons and provide feedback to teachers.
- Model effective teaching techniques and strategies for students with reading difficulties and disabilities.
- Advise and support teachers to adapt reading instruction to make it more effective for students with reading difficulties.
- Administer assessments and interpret results, and train teachers to do so.
- Participate in co-planning and co-teaching of lessons for students with reading difficulties and disabilities.
- Engage in problem-solving within pre-referral intervention teams or with individual teachers with the goal of removing obstacles to student progress.
- Facilitate collaboration within grade-level or vertical teams of teachers.
- Conduct workshops to help introduce teachers to new strategies.

Special educators will vary in the levels of involvement in these various activities. In some cases, they will assume the primary responsibility for a school-wide program. In other schools, they will collaborate with a reading coach and general educators to implement components of an intervention program. As special educators take on new roles within the school, it is essential that they are able to clearly articulate how *they* see their roles. They must be able to describe to other teachers, parents, and administrators: (a) the rationale for the role, (b) a description of the processes they will use in coaching or consultation, (c) the tasks they will be doing and services they can provide, and (d) how they will be spending their time during the school day (Hasbrouck & Denton, 2005, 2010). These considerations must be openly and purposefully discussed with administrators and colleagues so that all are working toward a shared goal of providing quality instruction and intervention to enable all students to be successful and identifying those students with learning disabilities who require services of the nature and duration available though special education.

RESPONSE TO INTERVENTION

Response to Intervention (RTI) is recommended in the reauthorization of IDEA as a means of identifying a learning disability. RTI is an instructional and assessment framework for organizing screening, progress-

monitoring and progressively more intensive tiers of intervention to meet the learning and behavior needs of students, prevent LD, and using as a data source to facilitate identifying students who need special education services (Fuchs & Vaughn, 2012; Vaughn & Fuchs, 2003).

Students with learning disabilities have traditionally been identified by determining their potential or ability, usually with an intelligence test (IQ), and comparing that with their achievement, as measured by reading or math tests. Only students with a significant difference between their IQ and their achievement in academics (e.g., math or reading performance) were eligible for identification as having learning disabilities. Students who were assessed as being low in both ability and achievement could not qualify for special education services unless their cognitive ability was so low that they were determined to have an intellectual disability. This process had many difficulties, including: (a) overreliance on IQ measures, and (b) the requirement to wait for a discrepancy between IQ and achievement, which might have meant that students were not provided services until too late (Fletcher & Vaughn, 2009).

As a result of the recommended use of RTI, eligibility and identification criteria for learning disability are described as follows (IDEIA 2004; reauthorization [614(b)(6)(A)-(B)) when determining whether a child has a specific learning disability:

- The LEA [local education agency] is not required to consider a severe discrepancy between achievement and intellectual ability.
- The LEA may use a process that determines if a student responds to scientific, research-based intervention as part of the evaluation.

Therefore, the process of RTI may help identify students with learning disabilities by replacing discrepancy criteria, providing intervention as a critical element in the assessment process, and using students' responses to intervention as data to facilitate decision-making. According to Klingner et al. (2007), the following challenges influenced use and acceptance of RTI frameworks:

- Increase of more than 200% since the learning disability category was established – although recently the prevalence of learning disabilities has been more stable.
- Questionable procedures for determining learning disabilities through emphasis on an IQ – achievement discrepancy and processing disorders.
- Students identified using a 'wait to fail' model rather than a prevention–early intervention model.
- Subjectivity in student referral for services, with teachers' perceptions of students' performance often determining who was referred for special education.
- Students' opportunities to learn not adequately considered during the referral and identification process.
- Considerable variation from state to state concerning identification procedures and prevalence rates for learning disabilities.
- An identification process that provides little information to guide instructional decision-making.
- Problematic assessment practices, particularly for culturally and linguistically diverse students.
- Disproportionate numbers of culturally and linguistically diverse students inappropriately identified for and served in special education.

COMPONENTS OF RESPONSE TO INTERVENTION

RTI is considered an instructional model or framework for preventing LD in the early grades and a remediation framework for enhancing outcomes in academics and behavior in the older grades (upper elementary and secondary grades) (see for review, Glover & Vaughn, 2010). The focus is to identify students early, provide interventions; and then, based on students' response to these interventions, determine whether or not additional intervention is needed or whether the type or intensity of intervention needed to be adjusted.

Screening and progress-monitoring.   Students are screened for reading and math problems typically at the beginning and middle of the year. Students with demonstrated learning problems are provided additional intervention and their progress in this intervention is monitored to assure success. A more detailed description of progress-monitoring occurs later in this chapter.

Implementation of effective classroom instructional practices so that all students have an opportunity to learn (Tier I).   One of the fundamental components of an RTI framework is that classroom instruction is research-based and associated with high learning outcomes for the majority of students – thus, students who are not successful are not casualties of poor classroom instruction but have more significant difficulties that require intervention.

Provision of secondary intervention (Tier II).   When students are not making adequate progress in the classroom. The purpose of the supplementary intervention is to provide additional, small-group instruction targeted at increasing proficiency in the target area of reading, math, or writing.

Provision of a more intensive individualized intervention (Tier III).   For students for whom secondary intervention is inadequate. Some students do not benefit sufficiently even when provided a Tier II or secondary intervention. These students require an even more intensive intervention (e.g., longer instructional sessions, smaller group, instruction more specifically-aligned with their learning needs).

Although no one single model is accepted as the 'gold standard', RTI models commonly include four key components (Fuchs & Vaughn, 2012; Fuchs, Fuchs, & Vaughn, 2008; Haager, Klingner, & Vaughn, 2007): (1) high-quality, research-based instruction is aligned to the needs of students, (2) level and rate of performance of students is monitored over-time, (3) increasingly intensive interventions based on students' progress are provided to meet their learning needs, and (4) ongoing decision-making about instruction is based on data.

Teachers and other school personnel need to establish procedures to accomplish the following with an RTI model: (a) identify students who need intervention, (b) provide evidence-based interventions that improve learning for the vast majority of students, (c) monitor the effects of the interventions, and (d) make decisions in consultation with other key professionals.

While RTI is typically considered a prevention approach at the elementary level, there are several considerations for implementing RTI with upper elementary students with reading difficulties (Vaughn & Fletcher, 2012):

- Adolescence is not too late to intervene, and secondary students benefit from interventions. However, many of the language and knowledge deficiencies that are associated with poor reading are unlikely to be readily and quickly remediated.
- Focus the reading intervention on the instructional need. Most older students with reading difficulties benefit from interventions focused at both the word and comprehension level.
- School-wide approaches to enhancing knowledge and vocabulary within content area instruction (e.g., social studies, science) can enhance the limited background knowledge and vocabulary of students with significant reading problems.
- Teaching comprehension strategies to older students with reading difficulties is beneficial but is unlikely to be sufficient to meet all of their needs for improved reading for understanding and learning.
- Older students with significant reading problems are unlikely to make the large effect size gains of younger students.
- There is little empirical support for more individualized approaches (e.g., approaches in which students address instruction to meet the individual needs of the learner, not group size) to teaching students with reading disabilities and our limited research indicates that

standardized approaches slightly better results for decoding for students with significant reading problem.

THREE-TIER FRAMEWORK FOR RTI

We have implemented a Three-Tier Model to assist school districts in making decisions related to RTI in the area of reading. The model is intended to provide a framework for meeting the instructional needs of all K-3 students in the area of reading; particularly students who not make adequate progress in reading. Tier I reading instruction is designed to address the needs of the majority of a school's students. Quality Tier I instruction includes implementation of a core reading program based on scientific reading research, flexible grouping, use of assessment to drive instructional decisions, and targeted instruction to address student needs. This effective core reading instruction is sufficient to meet most students' needs. As a result, Tier I instruction enables many students to acquire necessary reading skills and be on-track for further reading development without intervention.

Classroom reading instruction is not sufficient to meet the needs of some students, and Tier II intervention is required. Tier II intervention is designed for students who need more intensive instruction to accelerate their progress. The intervention is provided in addition to the time allotted for the core reading instruction. A classroom teacher, specialized reading teacher, or another trained support person provides daily, 20–30-minute sessions of intensive, small-group reading instruction to support the reading skills addressed in the core reading program. To effectively monitor and meet individual student needs, the intervention is provided in small, homogeneous groups of four or five students.

A small percentage of students who have received Tier II intervention continue to show significant reading difficulties. These students demonstrate reading skills well below grade level as well as slow progress in the Tier II intervention. Therefore, a more intensive intervention is warranted. Tier III intervention is provided in addition to Tier I instruction and is designed to meet individual student needs. The intensity of the intervention is increased in Tier III by providing more time in intervention (50–60 minutes daily) and instruction in smaller groups (two or three students). The increased intensity in Tier III allows a specialized reading teacher, special education teacher, or external interventionist to provide specialized, explicit instruction to match student needs. Table 37.1 provides detailed information on each of the three tiers.

The Three-Tier Reading Model is designed to provide a decision-making framework to assist school districts in meeting the needs of all students and reducing the number of students with reading difficulties. Through professional development, the use of a core reading program based on scientific reading research, and integrated assessments, Tier I instruction should allow 80% or more of students to get on track as successful readers. Intensive, focused intervention is provided in Tier II and Tier III for students identified as at risk for reading difficulties.

The lowest 20%–30% of students may require Tier II, while 3%–10% of students may need the more intensive Tier III intervention.

THE LEVELS OF THE THREE-TIER MODEL, TIER I

Tier II and Tier III should be dynamic, allowing students to enter and exit intervention as their instructional needs change (see Figure 37.1). When a student demonstrates response to an intervention and is able to

perform at grade-level expectations on the assessments, intervention may no longer be required. Screening assessments given three times per year (fall, winter, spring) help to ensure that students in need of intervention are identified quickly and instruction in each tier can be adjusted to meet their needs. In contrast to previous interventions for reading, the Three-Tier Reading Model provides a system that is responsive to students' changing needs.

Table 37.1   Details of Tier I, Tier II and Tier III

	Tier I	Tier II	Tier III
Definition	'Core' reading instruction and programs, including ongoing professional development and benchmark assessments three times per year.	Instructional intervention employed to supplement, enhance, and support Tier I and takes place in groups of 4–5.	Individualized reading instruction extended beyond the time allocated for Tier I and takes place in groups of 2–3.
Focus	For all students in kindergarten through 3rd grade.	For students identified with reading difficulties who have not responded to Tier I efforts.	For students with marked difficulties in reading or reading disabilities who have not responded adequately to Tier I and Tier II efforts.
Program	Scientifically-based reading instruction and curriculum emphasizing the five critical elements of beginning reading.	Specialized, scientifically-based reading program(s) emphasizing the five critical elements of beginning reading.	Sustained, intensive, scientifically-based reading program(s) emphasizing the five critical elements of beginning reading.
Instruction	Sufficient opportunities to practice throughout the school day.	• Additional attention, focus, support. • Additional opportunities to practice embedded throughout the day. • Pre-teach, review skills; frequent opportunities to practice skills.	• Carefully designed and implemented, explicit, systematic instruction. • Fidelity of implementation carefully maintained.
Interventionist	General education teacher.	Intervention provided by personnel determined by the school (classroom teacher, specialized reading teacher, other trained personnel).	Intensive intervention provided by personnel determined by the school (specialized reading teacher, special education teacher, external specialist).
Setting	General education classroom.	Appropriate setting designated by the school.	Appropriate setting designated by the school
Grouping	Flexible grouping.	Homogeneous small-group instruction (e.g., 1:4, 1:5).	Homogeneous small-group instruction (1:2, 1:3).
Time	Minimum of 90 minutes per day.	Minimum of 30 minutes per day in addition to Tier I.	Minimum of two 30-minute sessions per day in addition to Tier I.
Assessment	Benchmark assessments at beginning, middle, and end of academic year.	Progress-monitoring twice a month on target skill to ensure adequate progress and learning.	Progress-monitoring twice a month on target skill to ensure adequate progress and learning.
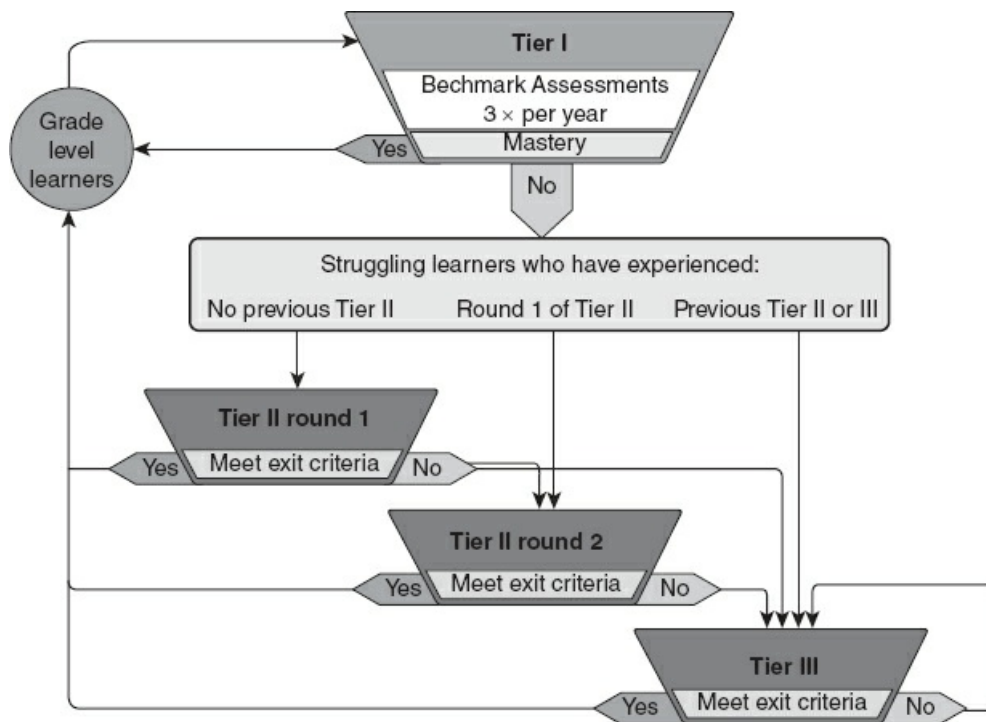
Figure 37.1 Movement through Tiers I, II, and III

FEATURES OF INSTRUCTION FOR ELEMENTARY STUDENTS WITH DISABILITIES

While there are many features of instruction to consider about *how* to most effectively teach students with learning difficulties/disabilities (for example, pacing, monitoring progress), one of the critical factors to consider is grouping. Grouping for reading has been a fundamental issue in education (Anderson, Hiebert, Scott, & Wilkinson, 1985; Barr, 1989) and one of the few alterable features of instruction that 'can powerfully influence positively or negatively the levels of individual student engagement and hence academic progress' (Maheady, 1997, p. 325).

Until the 1990s, students were grouped in relatively homogeneous ability groups for instruction – for example, in reading, based on teachers' judgment, placement tests, and/or standardized test scores (Barr & Dreeben, 1991; Kulik & Kulik, 1984). Same-ability grouping occurred in several ways. Most teachers provided same-ability reading instruction within their classrooms by dividing students into three or four groups. In other cases, teachers regrouped students with those from other same-grade classrooms or cross-grade classrooms to assure that students with similar reading abilities and needs were placed into the same group.

After 1990, there was an increasing trend toward whole-class instruction and heterogeneous groups for reading. This shift occurred for several reasons. First, research revealed that the instruction provided to students in the lowest groups was of poor quality, often focusing on isolated skills and providing minimal time for reading connected text (Allington, 1980; Hiebert, 1983).

Second, same-ability groups were very stable, providing little opportunity for students to move between groups (Oakes, Gamoran, & Page, 1992). Because students' peer relations were influenced considerably by the make-up of their reading group, the stability of ability-based reading groups limited students' friendship

opportunities (Hallinan & Sørensen, 1985). Finally, students' self-perceptions were also influenced by the group in which they were placed (Oakes et al., 1992), such that students who were always placed in the lowest reading groups developed negative perceptions of their reading ability and low expectations of progress.

In response to these concerns, most classroom teachers used whole-class instruction, at times complemented with small, cooperative, mixed-ability groups (Anderson, Wilkinson, & Mason, 1991; Elbaum, Schumm, & Vaughn, 1997). Unfortunately, whole-class instruction cannot meet the learning needs of most students with learning difficulties/disabilities. This is particularly true for students with severe reading difficulties, including students with identified reading disabilities.

GROUPING PRACTICES AND READING OUTCOMES FOR STUDENTS WITH READING DISABILITIES

Several reviews have examined the effects on reading outcomes of different grouping practices: (a) within-class grouping (Lou et al., 1996), (b) ability grouping (Barr & Dreeben, 1991; Kulik & Kulik, 1982; Slavin, 1987), and (c) student-pairing (Cohen, Kulik, & Kulik, 1982; Scruggs, Mastropieri, & Richter, 1985; Scruggs & Richter, 1985). Two meta-analyses (Elbaum, Vaughn, Hughes, & Moody, 1999; 2000) and a study of the effects of group size on student outcomes (Vaughn et al., 2003) have also provided valuable information about the relation between grouping practices and reading outcomes for students with reading difficulties. There is now substantial empirical evidence that supports the value of teaching reading to students in pairs and in small groups.

Student pairs

Student-pairing for reading instruction is a grouping format that requires additional consideration for two important reasons: (a) when students learn to work with a partner for a specific reading activity, it can potentially 'free-up' the teacher to provide instruction to other students, and (b) it may provide a means for additional directed reading time for students with reading difficulties.

A meta-analysis of several types of grouping practices (student pairs, small groups, multiple grouping formats; Elbaum et al., 1999) provided additional information on student-pairing for reading instruction for students with reading disabilities. When older students served as tutors of younger children (cross-age tutoring), the tutors made significant progress, whereas the younger students did not (ES = .66 and ES = –.02, respectively). These findings suggest that when students are working in a cross-age tutoring model, students who need the most practice in reading should have ample opportunities to serve in the role of the tutor. The meta-analysis further revealed that when students were engaged in same-grade (peer) tutoring, the tutored students made significant progress (ES = .47); the benefits to students who served in reciprocal roles as tutors and tutees were more modest (ES = .16).

Thus, pairing students for instruction can be associated with positive outcomes in reading, provided that tutors are trained, clear tutoring routines are established and followed, and teachers carefully monitor student progress to ensure that all students benefit from the activity. Student-pairing is a particularly desirable grouping format for classroom teachers because it is both feasible for teachers to implement and enjoyable for students (Elbaum et al., 1997; Fuchs, Fuchs, Mathes, & Simmons, 1997; Vaughn, Hughes, Schumm, &

Klingner, 1998). Furthermore, teachers report that students derive many social benefits from working in pairs (Lamport, 1982; Maheady, Harper, & Sacca, 1988; Mathes & Fuchs, 1994). See Table 37.2 for suggestions on using student-pairing activities.

Small-group instruction

In a meta-analysis of the effects of within-class grouping in general education classes, Lou et al. (1996) found that across different subject areas, group sizes of 3–4 yielded effect sizes that were twice as large as those for groups of 8–10 (ES = .22 vs. ES = .11, respectively). Moreover, low-ability students benefited more than medium- or high-ability students (ES = .37 vs. ES = .19 and ES = .26, respectively). In a study that specifically examined outcomes in reading, Taylor, Pearson, Clark, and Walpole (1999) found that first-through third-grade teachers in more effective schools spent more than twice as much time as those in less effective schools in small-group instruction for reading. In recent years, the use of small groups for differentiating instruction in classrooms and interventions has increased (Chorzempa & Graham, 2006; Ford & Opitz, 2008).

Hong and Hong (2009) examined information from 2,814 kindergarten classrooms implementing no grouping, low-intensity grouping (less than 40% of reading instruction time in small groups), and high-intensity grouping (more than 40% of reading instruction time in small groups) within kindergarten classes that dedicated a limited amount of time to reading instruction (averaging less than 1 h per day) as well as classes that dedicated a substantial amount of time spent on reading (averaging more than 1 h per day). Findings indicated an interdependent relationship between instructional time and grouping with homogeneous grouping improving kindergarteners' reading growth best in classrooms with substantial time dedicated to reading instruction. Increased time in instruction was only beneficial if teachers differentiated instruction through homogeneous grouping practices.

Table 37.2   Practices for effectively using pairs and small groups

Paired instruction

- Have better readers partner with less-able readers for fluency activities in which the better reader reads several paragraphs and then the less-able reader rereads those paragraphs.
- Have students with reading difficulties serve as reading monitors for younger students.
- Partner students to check each other's work when they are completing activities in centers.
- Ask students to work in pairs to answer comprehension questions about a commonly-read passage.
- Ask students to work in pairs using word cards. One student reads the word, the other student writes the word, and then by showing the word, both students check spelling of the written word.
- Implement a peer-tutoring program in which students in the primary grades practice phonics skills that have been previously taught (see Mathes, Howard, Allen, & Fuchs, 1998; Mathes, Torgesen, & Allor, 2001).

Small-group instruction

- Develop a variety of purposeful learning activities that students can engage in independently while you teach small groups of students. These activities should be based on learning objectives and planned so that students are independently practicing skills they have already been taught.
- Teach students how to use learning centers (or 'work stations') and to work cooperatively within these centers. Explicitly teach the routines, and re-teach as necessary.

- Identify community volunteers or parent helpers who can guide small groups of students working in learning centers. Older students may also be able to serve in this role.
- Organize reading groups so that the students who need the most help are in the smallest group.
- Reorganize groups frequently to reflect the learning needs and progress of students within the group.
- Restructure personnel resources in the school so that I and other educational personnel are available to provide additional classroom support during reading instruction.
- Organize centers that engage students in projects that are related to classroom activities and require more extensive time to complete these projects. Provide specific guidelines and a sample of a completed project at the center so students know what their 'end project' should look like.
- Give specific guidelines so students can demonstrate the work they have completed. For example: (a) keeping track of many times they have reread the text, (b) timing themselves or another student in how quickly they read the text, (c) developing a 'who' and a 'what' question about the text that they read, or (d) 'reporting' the main idea of what they've read to another student who read the same text.
- Use tape recorders to listen to a story while reading along, recording reading of a story and then listening to the recording, summarizing the key ideas in a story, and/or conducting an interview with other students about what they are reading.
- Provide choices for centers with specified outcomes and flexible time so that students can complete extended work. Each center can have an 'expert' in the room (not always at the center) whose name is on the center and is available to answer questions.
- Use writing activities as a center or ongoing activity. Students can write, revise, edit, conference with each other, and engage actively in the writing process approach individually, in pairs, and in small groups.
- Have one group of students use high-quality computer software to practice skills on classroom computers.

The question of how small the group needs to be for struggling readers to make adequate progress is important in that the answer influences the amount of resources needed to meet students' instructional needs and/or the amount of time that students can be instructed in smaller groups. Although there is not one ideal group size connected with an increase in student outcomes, if it were feasible, many educators may choose to provide one on one instruction (one teacher with one student) to students with reading disabilities. However, if students make the same gains in larger group sizes, then either more students can be provided support or the support can be extended.

To examine the effects of group size on student reading outcomes, Vaughn and colleagues (2003) conducted an intervention with second-grade students identified as having reading difficulties to determine whether the effect of the intervention differed across three group sizes: 1:1 (one teacher with one student), 1:3, and 1:10. The intervention included instruction in four key areas: fluent reading, phonemic awareness, comprehension of connected text, and word analysis/spelling. All groups made significant progress from pre- to post-test, but the largest gains were realized by students in the 1:1 and 1:3 groups. Of the 17 out of 77 students who made less than 6 months' gain during the 14-week intervention on either word attack, word identification, or reading comprehension, only two were in the 1:1 condition, six were in the 1:3 condition, and nine were in the 1:10 condition.

The foregoing studies, as well as others (for example, Acalin, 1995; Evans, 1996; McCoach, O'Connell, & Levitt 2006; Thurlow, Ysseldyke, Wotruba, & Algozzine, 1993), underscore the positive effects of small group instruction, particularly for students with reading difficulties. When teachers have large numbers of students who are reading below grade level, every effort should be made to provide them with daily instruction in a smaller group format such as one-to-one, pairs, or groups of 3–4. See Table 37.2 for suggestions on using student groups effectively.

ALIGNING INSTRUCTION WITH STUDENT LEARNING NEEDS

In addition to grouping for instruction, there are several features of instructional delivery that can positively affect student outcomes. Consistent with research on direct instruction, structured, organized lessons delivered explicitly, systematically, and sequentially have been shown to be beneficial to students with disabilities (Coyne, Kame'enui, & Simmons, 2001; Fuchs et al., 2003). These structured lessons should include many opportunities for student practice and response along with immediate feedback to assist students in learning new content effectively and efficiently.

Explicit instruction

Explicit instruction refers to overtly teaching all the steps needed to understand and complete a task. Explicit instruction is planned and specified to clearly meet established goals and objectives. The use of explicit instruction, including teacher modeling and step-by-step explanations or instructions for completing tasks and applying strategies, is associated with improved outcomes for students with LD (Baker, Gersten, & Lee, 2002; Fielding-Barnsley, 1997; Gersten et al., 2008; Swanson, 2000; Vaughn, Gersten, & Chard, 2000).

Explicit instruction can be thought of as a continuum with the goal of effectively and efficiently building student skills toward mastery and independence. When a skill or strategy is initially being taught, teachers can provide explicit instruction by presenting step-by-step explanations, demonstrating conspicuous strategies, and overtly modeling for students how to complete the task. Table 37.3 provides an example of adjusting instruction to make a lesson more explicit for students.

Table 37.3   Explicit instruction

Example of less-explicit instruction:
Tell students the main idea of a story tells the most important part of the story. Reread *Dinosaurs* together and ask students to tell the main idea of the story.
Lesson adapted to be more explicit:
Tell students the main idea of a story tells the most important part of the story. Tell them the main idea names who or what the story was about and the most important thing that happened to the who or what.
Model stating the main idea for the story just read, *Dinosaurs*. 'Jacob is the who in the story. The most important thing about Jacob is he learned to cooperate. So, the main idea is, "Jacob learned to cooperate"'.
Let me read you a short story. (Read paragraph about Sarah cooking ham.) Who or what is in this story? (Sarah) What is the most important thing about Sarah? What is the main idea of that story?
Repeat with other short paragraphs.

Systematic and sequential instruction

Systematic and sequential instruction consists of breaking down complex skills into smaller, manageable learning units and sequencing instruction from easier to more difficult. Systematic instruction also includes the scaffolding of student learning to control the level of difficulty during initial learning and allow students to master each substep before synthesizing learning into more complex skills. Organizing instruction systematically and sequentially is essential to effective outcomes for students with LD (Coyne et al., 2001; Swanson, 2000; Torgesen, 2002).

Teachers who deliver lessons systematically are also able to provide instruction at a quick pace because the amount of instruction is at the appropriate level and students are more likely to be successful. Teaching complex skills in steps that allow students to be successful is likely to allow students to have confidence in their abilities, and increase the efficiency of learning. Efficiency of learning is a valued outcome allowing more time for students with LD to 'catch up' in their learning.

Similar to explicit instruction, systematic and sequential instruction can be thought of as a continuum. Some students may need a task organized into three or four steps or learning units for them to successfully learn, while other students may need the task organized into more manageable units, perhaps six or seven steps, to understand and acquire proficiency in the task. When planning lessons, teachers using systematic instruction should consider how to organize the instruction according to the needs of most students in the instructional group or class. They must also consider how they will reorganize the instruction and make it more manageable for students who have difficulty learning the task. Table 37.4 provides an example of adapting a lesson for students needing more manageable steps.

Table 37.4   Systematic instruction

Example of few manageable steps:

Telling time in 5-minute intervals

(Prerequisite: Telling time to the hour; counting by 5s)

1. Show students a clock set to 6:20. Remind students the short hand points to the hour and the long hand points to the minutes (point to each hand to demonstrate).
2. Explain that first students should tell the hour (6) that the short hand points to; then students should look at the long hand to count the minutes. Starting at 12 they should point to each number and count by 5s until they reach the long hand.
3. Demonstrate pointing and counting to 6:20. Continue modeling with several different times and have students count the minutes chorally.
4. Repeat with several different times and have students tell what time it is.

Adapted lesson with more manageable steps

(Steps may be introduced across several days.)

Telling time in 5-minute intervals

(Prerequisite: Telling time to the hour; counting by 5s)

1. Teach students to discriminate between the short hand and long hand.
2. Teach students to identify the hour using a clock with only the hour hand present. Place the hour hand in several different positions (sometimes directly on a number and sometimes just past one of the numbers).
3. Add the long hand to the clock pointing to the 12. Practice pointing to each number on the clock and counting by fives.
4. Teach the telling time strategy. First look for the hour. Then count by fives to the minutes. Allow students to practice saying the steps.
5. Demonstrate telling time using the steps in the strategy. 'First we look for the hour. What number did it just pass? Then we count by fives to the minutes. Start at 12 and count by fives until you reach the minute hand'.
6. Repeat with several different times. Ask students for the hour; have them count by fives to determine the minutes; have students state the full time.

EXPANDING OPPORTUNITIES FOR STUDENT RESPONSE AND PRACTICE

Opportunities for student response refers to the amount of guided practice students receive throughout a lesson. Similar to student needs for more explicit and systematic instruction, students with academic

difficulties often need more practice opportunities in order to succeed. It is important that a variety of response and practice opportunities are included throughout initial instruction so that teachers can do ongoing checks on student learning. Instruction that is low on teacher talk and high on student response or questioning is recommended for increasing engagement in instruction and accelerating student outcomes (Brophy & Good, 1989; Swanson et al., 1999). Expanding opportunities for student response is accomplished through concise, explicit, systematic instruction that is appropriate for the learner's needs, as discussed earlier, and incorporating questioning and practice opportunities throughout the instruction. In addition to allowing students opportunities to process the concepts being taught, this type of instruction allows teachers to continually check student understanding, provide appropriate feedback immediately (see below), and adjust the lesson as necessary to ensure student success.

When students are taught in large instructional groups, it may be difficult to design instruction so that all students in the class receive ample opportunities to respond and practice the skills or strategies being taught. However, students with academic difficulties are unlikely to learn the necessary tasks by watching or hearing other students practice. They need their own practice opportunities and may need more opportunities than students who acquire these skills more readily. Systematic organization of instruction, as discussed previously, can assist with response opportunities as well. Complex tasks that are organized into smaller steps for instruction allow additional opportunities for practice within each of the steps. It is important to provide students practice opportunities in the substeps of a complex skill as well as practice synthesizing the substeps. For example, students with reading difficulties may need substantial practice with the sound structure of the English language and the use of this knowledge to read and decode words. However, if these students do not receive ample opportunities to use these word-reading skills with supported and independent reading and understanding of text, then they cannot progress sufficiently in their reading achievement. Due to the complexity of synthesizing skills, practice at the synthesis level may need to be more frequent than practice of the substeps or skills.

Even during initial learning, instruction is best organized to allow for high levels of student success. If a student demonstrates a high error rate, more explicit or systematic instruction is recommended. The grouping formats discussed earlier in this chapter are also designed to increase student opportunities for response. Table 37.5 provides an example of adjusting a lesson to provide more opportunities to respond. Notice how various grouping formats are used within the lesson to provide all students with an opportunity to practice/respond.

Ongoing instructional feedback

To effectively increase student learning, ongoing student feedback that provides error correction, instruction, and positive feedback are critical for assisting students in refining and mastering new skills (Hattie & Timperley, 2007; Vaughn et al., 2000). Corrective feedback is provided to allow students to stay on the right track during practice or to remedy errors in task completion and get students back on the right track. The more immediate the feedback, it is more likely the student can better associate the feedback with the associated response and it is less likely that the student will spend time practicing incorrectly. Preventing significant amounts of inaccurate practice will allow a more efficient path to mastery. Just as important, students need precise, clear, positive feedback when they respond correctly. Teachers should make sure that

their positive feedback communicates clearly what aspects of the task students perform well.

Although independent practice is a necessary part of instruction, it does not normally allow for immediate feedback. Workbook pages, worksheets, and other independent work are most effectively used after students have demonstrated mastery of a skill or concept. Independent work is intended as the last step of the scaffolding process to give practice with a skill without teacher guidance. Independent work assigned when students have not mastered a skill takes away the opportunities for immediate feedback and, thus, students may practice skills incorrectly a number of times (for example, complete much of the worksheet incorrectly) and receive correction only after the work is graded or corrected by the teacher one or more days later. Rather, independent activities should be used for additional practice and to allow students to demonstrate the final step of mastery: the ability to complete tasks or skills without teacher guidance. Teachers should continue to monitor student performance even during independent practice in order to provide additional support when it is needed.

Table 37.5   Ample opportunities to respond

Example of few opportunities to respond:

Scientific-method review

After completing the experiment, ask several students to tell one step of the method they used. Write their answers on sentence strips with magnets and place on the board. Ask a student to tell which step they used first, second, etc. Move the sentence strips in order to correspond with student responses.

Adapted lesson for increased opportunities to respond:

Scientific-method review

After completing the experiment, have students pair with a different partner. Each partner tells the steps they used to complete the experiment. After sharing with their partners, invite several partners to share one step of the method. Point to each step on the board and tell all students to chorally say 'Stop' when they get to the first step in the method. Place a #1 next to the step and move the step to first in the list. Repeat with each step of the method until the steps are in order.

Hattie and Timperley (2007) synthesized the results from 12 meta-analyses that examined feedback as an instructional practice. They reported that feedback was associated with an effect size of 0.79 across all studies and populations, and specifically for special education, the effect size was 1.24. Teachers who implement effective feedback practices consider: (a) student goals and how well the students understand and perform the tasks, (b) the process to successfully understand and perform the tasks, (c) how to monitor and direct the key behaviors associated with successful completion of tasks, and (d) ongoing learner evaluations.

USING PROGRESS-MONITORING TO INFORM INSTRUCTIONAL DECISIONS

Progress-monitoring with curriculum-based measures is a valid and reliable way of measuring students' ongoing academic growth for use in instructional decision-making (Deno, 1985; Marston, 1989; Vellutino, Scanlon, Zhang, & Schatschneider, 2008). In fact, teachers who monitor the effectiveness of instruction tend to achieve significantly higher rates of student learning than teachers who rely on more traditional assessments (Conte & Hintze, 2000; Fuchs, Fuchs, Hamlett, & Allinder, 1991; Stecker, Lemke, & Foegen, 2008). Additionally, teachers' sing-progress-monitoring-measures tend to be more realistic when estimating a

student's rate of progress and are able to adjust instructional goals accordingly (Fuchs, Deno, & Mirkin, 1984; Fuchs, Fuchs, Hamlett, & Stecker, 1991). Progress-monitoring measures are assessments that can be administered frequently and are sensitive to small changes in learning providing immediate and ongoing feedback to both the student and the teacher about progress and instructional needs. The frequent administration of progress-monitoring measures suggests the assessments should have multiple, equivalent forms that can be administered throughout the school year. Additionally, these assessments are often designed to be quickly administered, allowing for frequent administration that does not interfere with already limited instructional time. Additionally, progress-monitoring measures can be developed by teachers and aligned with instruction. For example, teachers can develop a list of spelling words they intend to teach over a six-week period. Students can be pre-tested on the list and taught the words they cannot spell. Progress on the acquisition of these words can be monitored over the six weeks of instruction.

Progress-monitoring measures can serve two purposes: (a) to make instructional decisions for individual students and (b) to monitor the effectiveness of instructional changes or interventions. Data from progress-monitoring should allow teachers to consider in which areas students are progressing well, which instructional areas need additional attention, which students have similar needs and may benefit from targeted instruction in a small group, and whether instruction or interventions are effective for the student or need to be altered.

Setting goals and examining progress-monitoring on a frequent basis can also assist in determining relatively quickly whether interventions are successful or whether changes are needed in instruction. Examine Derek's data in Figure 37.2. Derek's scores are increasing, and it appears as though he is headed for the goal. For this reason, it is evident the intervention is allowing him to make sufficient progress in this learning area and the instruction should be continued. Alternatively, examine Amy's data in Figure 37.3. Although she is making progress, it is clear that if she continues to make the same level of progress, she will not be able to meet the goal. Therefore, the current instruction is not allowing her to make sufficient progress in this area. Instructional changes are warranted for Amy, and progress-monitoring should be continued to examine whether the changes result in accelerated progress.

The inclusion of the features of instruction discussed in this chapter can be evaluated to determine possible instructional changes for Amy. Perhaps Amy needs instruction in a smaller group to help provide instruction that is better aligned with her learning needs including expanding her practice opportunities and feedback. It may be that the instruction Amy is currently receiving is not explicit or systematic enough. Perhaps Amy is not getting enough opportunities for practice, or the lessons need to be adjusted to allow for more immediate or precise positive and corrective feedback.

Whenever possible, students with LD should be monitored frequently (every week or every other week) to allow instructional adjustments to be made without extensive time passing. Student progress can be examined by looking at the student trend in comparison to the goal. However, several data points are needed to begin seeing a trend. If a student is monitored once each month, for example, then several months will pass before a trajectory emerges in the data and the need for instructional adjustments can be determined.
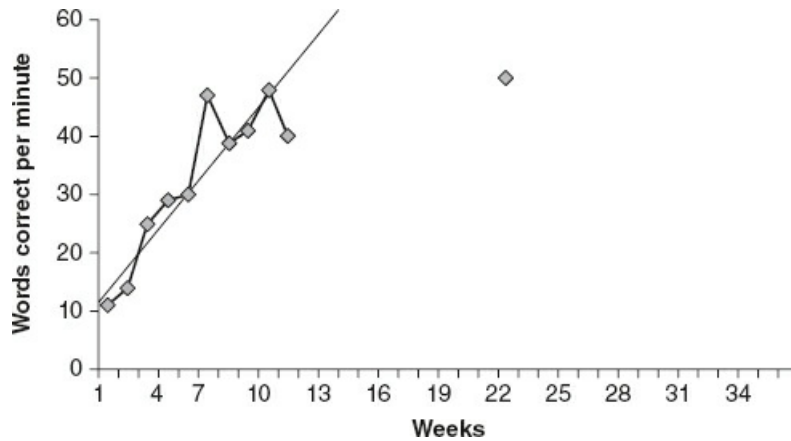
Figure 37.2   Derek's oral reading fluency
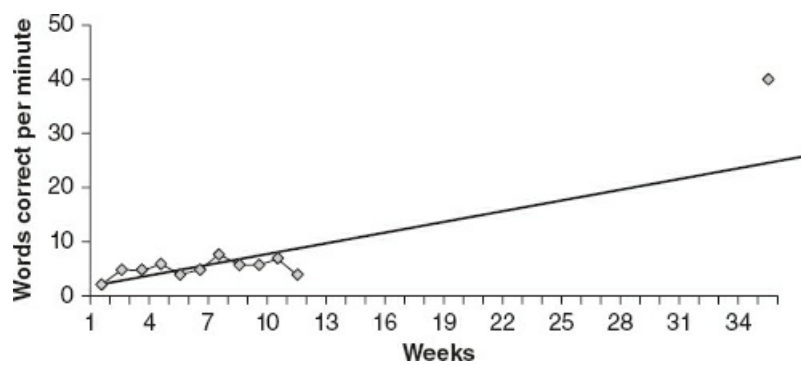
Figure 37.3   Amy's oral reading fluency

In summary, frequent progress-monitoring can allow teachers to make important instructional decisions for students with LD. Effective, efficient instruction and intervention is needed for students who are struggling. Progress-monitoring data can provide substantial information for teachers to identify instructional delivery adjustments needed to accelerate the progress of students with learning difficulties and disabilities.

Our knowledge about effective instruction for students with learning disabilities has increased in the past two decades. As a result of an improved knowledge base, the role of the special education teacher has changed and the knowledge and skills required to adequately perform the job have expanded. These continuing changes require ongoing professional development so that special education teachers can provide the necessary instruction that is most beneficial to students with special needs.

ACKNOWLEDGEMENT

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38

Secondary Special Education and Inclusive Practices: Pitfalls and Potential for the Success of All

Lisa A. Dieker and Selma Powell

INTRODUCTION

The status of students with disabilities being included in the general education setting not only looks different in every school and country, but the change is also notable as students progress up the grade levels. This chapter provides a focus on the unique challenges of including students with disabilities at the secondary level. The chapter is grounded in the observational research of over 80 secondary schools in the United States related to what is working at the district, school, classroom, and student level for secondary students with disabilities. Implications for schools and districts across the globe at the secondary level are provided.

SECONDARY INCLUSIVE SPECIAL EDUCATION

The field of special education has a long-standing tradition of including students with disabilities in more and more inclusive settings (Ainscow, 1991). For example, The United Nations Convention on the Rights of Persons with Disabilities (United Nations General Assembly, 2007) leaders emphasizes that,

> States Parties recognize the right of persons with disabilities to education. With a view to realizing this right without discrimination and on the basis of equal opportunity, States Parties shall ensure an inclusive education system at all levels and life long learning. (art. 24, para. 1)

Historically, special education services started out in isolation and complete segregation even though the original intent was for students to start in the general education setting when the continuum was introduced in the United States in 1962 (Reynolds, 1962) and as well in other countries (Ainscow, 1991; Slee, 2011). Despite the general education settings as the intended target for service delivery, many times serving students with even mild to moderate disabilities in the general education setting, at the secondary level, continues to be a struggle due high-stakes testing (Fairtest, 2008). Additionally, students who are on alternative assessments often are excluded due to the assumption that their career or social skill goals cannot be met in the general education setting. Winzer and Mazurek (2012) state that in order for policy to move to implication, the outcomes of work in schools must rest in ensuring that practices make a difference not just in the lives of some, but in the lives of all students. In general, inclusion is a practice that compliments the field of special education but it is not synonymous with the term. In this chapter, the concept of moving students with disabilities at the secondary level with a range of special education needs to, what in most countries would be identified as, more presence in the general education setting is the focus of our work. 'The concept of inclusive education has been gaining momentum around the world, by virtue of it being included in policies of international organizations such as the United Nations' (Gaad, 2011, p. 82).

Currently in the United States 80% of students with disabilities are included 80% of the time. Keeping the concept of inclusion at the forefront, regardless of the level or type of disability, a trend for students with disabilities is the inclination to provide more and more support from special education services, which can result in more restrictive settings as students progress through the grade levels (U.S. Department of Education [DOE], 2011). Yet, in strong inclusive districts in the case study provided in this chapter, the opposite effect was observed. Students who were provided less and less support as they progressed through the grade levels were less dependent on that support, which could mean improved outcomes as they enter the workforce or college. In this chapter, a summary of the current status of secondary inclusive practices along with highlights of practices from strong inclusive schools at the secondary level are provided from a case study from the United States. The chapter concludes with a discussion of what schools, classrooms, and most importantly secondary teachers might want to consider for services in the most inclusive secondary settings possible globally. The leadership for UNICEF (2007), note that inclusive education should embrace the child's intellectual, social, physical, and personality traits and talents in the most non-segregated environment as possible so that the student can reach his or her full potential.

So why is there a struggle at the secondary level to include students with disabilities in the United States? Two pieces of US legislation that has impacted current practices within all the content areas at this level are the combined principles of the Individuals with Disabilities Education Act (IDEA, 2004) and No Child Left Behind Act (NCLB, 2001). These two laws have required teachers be highly qualified, which created a unique challenge at the secondary level. According to NCLB, a highly-qualified teacher must hold a bachelor's degree and meet state licensure requirements. Therefore, a highly-qualified special educator who provides academic support and consultation is required to have state licensure in special education and a bachelor's degree. However, special education teachers who deliver the instruction in core subject areas like mathematics and science must also demonstrate competence in these areas as well (Byrnes, 2008; Dieker & Berg, 2002) or work directly with general education teachers who are deemed highly qualified. Highly-qualified teachers, under IDEA, must provide evidence-based instruction for students with disabilities to improve student achievement (Turnbull, 2005), but typically, the level of preparation of special education teachers in various secondary content areas is limited unless they were dually prepared in a specific content area.

In addition to special education teachers needing to be highly qualified in US schools, the rigor of the content and accountability to pass high-stakes tests for students with disabilities has greatly increased since many states have adopted Common Core Standards (Common Core State Standards Initiative, 2010) and many states are moving to end-of-course exams in order for students to receive credit. Also, in the US, secondary students with more severe disabilities can take an alternative assessment (up to 2% of students within each state are eligible) but are often excluded due to their Individualized Education Program (IEP) goals and curricular needs not being aligned with the content standards. However, many states like Florida and Virginia have created access points to the content that are aligned to the state standards. But if the general education teacher has limited experience with students with disabilities and the special education teacher has limited experience with the content, aligned standards do not transcend into how to successfully meet the needs of all students in one classroom.

The combined issue of NCLB (2001) seeking to increase student academic achievement in content areas, and holding schools accountable for Annual Yearly Progress (AYP) for students with disabilities in content

area also has lead to an impact in current service delivery models. Special education teachers may provide services for students with disabilities through: (a) direct or indirect consultation with the general educator, (b) pullout or resource class instruction, (c) self-contained class instruction, or (d) co-teaching (Murawski, 2009; Zigmond, 2003). The changes in the service delivery models and the requirements of NCLB have created challenges at all levels, but unique challenges have emerged at the secondary level. Beginning drafts of the Elementary Secondary Education Act (formally called NCLB) indicate a potential change of terms from highly qualified to 'highly effective'. No matter the term used in the US, the bottom line is to find ways for students with disabilities to be successful in as many subject areas as possible in inclusive settings has been and will continue to be a greater struggle than what is observed in elementary level classes. In addition, the current danger is that the field of special education in both teacher preparation and secondary content areas has limited research to inform the field as to highly effective practices at the secondary level.

THE BIG PICTURE

With this plethora of issues and limitation of research, the 'practical' application of inclusion at the secondary level is the theme of this chapter. The chapter is grounded in a US context but concludes with recommendations from a global perspective. The first author spent her career looking at effective practices at the secondary level and the second author has taught in a variety of classrooms and developed quality IEP for children in grades kindergarten through 12th grade. The overall themes that frame this chapter are taken from the work of the first author who analyzed written reports, from visits to 'effective' secondary inclusive schools, districts and classrooms over the past 3 years. During a recent sabbatical, 50 schools were visited to look for themes. Based on the observations, two overarching themes were identified with eight subcategories that will be discussed in depth. A content analysis was conducted on the visit summaries from the states of Arkansas, Arizona, Colorado, Florida, Massachusetts, Ohio, Virginia, West Virginia, and Wisconsin on the secondary schools visited. Content analysis was chosen to categorize the written content of the data into discernible themes. Johnson and LaMontagne (1993) suggested that content analysis, 'reduces communication into discrete categories according to a set of predetermined rules' (p. 73). From the data analysis, the themes that were used as the framework were found to be reliable at over 89%. Further information about the research can be ascertained from contacting the first author, but the outcomes of those visits provide the eight sections that are the focus of this chapter.

FOCUS ON THE SOLUTION, NOT THE PROBLEM

The first theme that emerged, from visits to secondary districts, schools, and classrooms in the US where students with disabilities were predominately served in the general education settings, was a core philosophy of finding solutions to any problem that a student might bring to the inclusive setting (also noted as 'no whining'). Many of the schools had: too many students, not enough materials, outdated technology, and not enough teachers. However, the schools where students were embraced easily in the general education setting seemed to have a core value of looking at any challenge a student presented as a need to find a solution. In these secondary schools, teacher lounges and conference rooms were not filled with complaints, but with heartfelt discussions about how to help students and how to work together more effectively.

These schools found including a student with a writing problem no different than including a student with multiple sensory impairments and felt it was equally as important and necessary to find solutions. The overall essence was not one of 'how do we get students out of the general education setting', but more of the essence of 'how do we keep them in the setting and what do we do to get students back if they do have to move to a more restrictive setting'. One of themes noted by Dieker (2006) is that inclusion is not something you do but something you believe – a true philosophy of how students are served not just a practice. These schools and districts believed that all students should be educated, to the maximum extent appropriate, in the general education setting. They were not looking for ways to remove students but instead were looking for ways to ensure student success in the general education setting. These schools also had a continuum of services that meet the needs of all learners.

Table 38.1   List of consistent structures in place in inclusive secondary settings

1. Active learning: Students were not in rows, but actively engaged in cooperative learning or peer support groups.
2. Behavior: Schools had discussed the need for similar rules and consequences with many using Positive Behavioral Intervention Support Models.
3. Teams: Teachers (both general and special education) were aligned by content teams, grade level teams, or Professional Learning Communities to work together towards the success of all students.
4. Collaborative teaching: Teachers were in classrooms working together that included special educators, general educators, English as a Second Language teachers, reading specialists, and speech therapists.
5. Grading: Grading was discussed across schools and teams as a way to report, to parents, student progress (e.g., standard-based report cards, portfolios).
6. Homework: Teachers coordinated efforts across the school and teams to provide a logical structure to when homework was assigned and due.
7. Technology use and adoption: Schools provided students with disabilities with tools that they were taught to use to meet their unique needs to become successful independent learners.
8. Self-advocacy preparation: Students were aware of their disability and how to advocate for their own needs.

CONSISTENT BUT FLEXIBLE

The second theme that emerged was one coded as a culture of consistency that was also flexible. These two terms seem to be somewhat of an oxymoron, but in the schools that seemed to embrace all learners, the following list of observed practices emerged. Table 38.1 is used to frame the discussion for the themes shared in the chapter.

ACTIVE LEARNING

As part of the industrial revolution, students needed to learn how to sit quietly in rows and be prepared to work on their part of the product going down the assembly line. This assembly line job was considered a high-paying job in the 1950's but not so much today. Students need to learn to interact and collaborate for success in today's workforce (Kaiser Family Foundation, 2010). Students in rows facing one person of 'authority' also states that there is one person in charge (the teacher) who will impart all knowledge and learning. Yet what we know is the more engaged the learner, the greater the learning outcomes (Felder & Spurlin, 2005). What was observed in the effective inclusive classrooms was threefold: 1) Students were not in rows, but actively

engaged in cooperative learning or peer support groups; 2) When students were in rows, the range of students with disabilities in the class, the number of accommodations that could be made and the role of both teachers (if co-taught) decreased; and 3) Students were often engaged with various activities that ensured their full participation (clickers, dry erase boards), and the expected outcomes were highly scaffolded (Rosenshine & Meister, 1992) to ensure the students' success.

A highly-engaged classroom at the secondary level is something to consider. An evolving trend in the US is the concept of increasing engagement of the learner via a model called the 'Flipped Classroom' (Information Technology Services at Penn State, 2011). In this model, students engage in more traditional homework (low level worksheet completion or learning basic vocabulary or information) so that when the students arrive at school they can 'apply' that knowledge or move to higher levels of learning (Lage, Platt, & Treglia, 2000). This concept of allowing students to learn basic facts in the way they learn best also parallels the concepts of Universal Design for Learning (UDL) presented by the Center for Applied Special Technology (CAST) as 'a framework for designing educational environments that enable all learners to gain knowledge, skills, and enthusiasm for learning … by simultaneously reducing barriers to the curriculum and providing rich supports for learning' (CAST, 2007, n.p.). Instead of having an accommodation for a single student, that accommodation now becomes an option for all learners providing a proactive way of designing curriculum for optimum content access for all students (Rose & Meyer, 2000). A UDL plan is where the structure of the classroom is created for learning that accounts for the abilities of all learners (Hitchcock, Meyer, Rose, & Jackson, 2002). Lessons that are focused on UDL typically follow three principles: Principle I multiple means of representation ('what'); Principle II multiple means of expression (the 'how'); and Principle III multiple means of engagement ('why'; CAST, 2008). Overall concepts like the flipped classroom and UDL are core values that can increase students being more active learners and increasing the roles of general and special education teachers working together in inclusive settings.

STRONGER LEVELS OF ENGAGEMENT AT THE SECONDARY LEVEL WERE ALSO CONTENT-SPECIFIC

The levels of engagement also varied across content and teaching philosophies. In some classrooms, students and co-teachers were silenced by a content teacher, who felt his or her imparting of knowledge was still the best approach for students to learn. Yet in the stronger secondary inclusive classrooms like science (which typically have a stronger hands-on environment) P.E., music, and art including students with a range of needs seemed easier. Many elective classes, and even some of the content areas teachers provided, are strong examples of embracing students to be highly engaged. As a reflection for classrooms in the US, even 30 years ago, students with a wide range of special needs were found included in home economics, art, and physical education. This trend continues today but the amount of support in curricular areas, including electives (e.g., computers, drafting, drama) is extremely limited or nonexistent since most support is being provided in the content areas being assessed for AYP (mathematics, language arts, and science). Yet without support, many of these hands-on environments had teachers successful with students with a range of special needs due to the engaging nature of the setting. In contrast, mathematics, social studies, and language classes, were very limited in finding hands-on and non-paper and pencil-learning environments. A reflection for secondary schools to continue to consider is that inclusion is harder at the secondary level. Or are classrooms less inclined to

embrace a range of learners and learning types at this level?

Many of the classrooms with high levels of engagement included cooperative group activities, labs, and some type of ongoing student response system. These more hands-on structures and levels of engagement also seemed to have an impact on the types of co-teaching that were used. Special education teachers seemed to have a stronger presence in the more active classrooms.

BEHAVIOR

Schools have discussed the need for similar rules and consequences with many using Positive Behavioral Intervention Support Models. An area that was both a problem and a positive was observed as a problem in schools in their first to third years of including students at the secondary level versus schools in their fourth to seventh years of inclusive practices. This issue was coded as the relationship between behavior and success. In over 25% of the sites observed, Positive Behavioral Supports (http://www.pbis.org) were already in place, or they were moving to some type of a more consistent behavior model across the school or district. However, many of the classrooms that had more than 30% of students with disabilities included in the setting struggled not in academics, but in the behavior of the students. In classes where behavior was positive or a non-issue, the numbers of students with disabilities was around 30% or in situations where the scheduling of students with disabilities when building the master schedule happened first not last. Also many of these classrooms that contained students with more significant needs used tools such as self-monitoring (Carter, Owens, Trainor, Sun, & Swedeen, 2009), social skills training through video modeling, peer supports structures through cooperative learning (Kagan, 1992; O'Brien & Wood, 2008) and peer tutoring.

TEAMS

In the inclusive schools observed, teachers were organized in teams with the special educators clearly aligned within a team. Many times at the secondary level, special educators serve as their own team. However, this model does not allow for strong collaboration with general education teachers. At the middle-school level, most typically, special-education teachers were aligned by grade level, but in some schools the special-education teachers were aligned by content. Teachers (both general and special education), were aligned by content teams, grade level teams, or Professional Learning Communities, to work together towards the success of all students (DuFour, 2007). Some schools were either using or moving to a Professional Learning Community model. Those that were more advanced in their inclusive practices again had special-education teachers closely aligned with general-education teachers in serving students within the learning community with and without disabilities. In addition, once teachers were on the team, there was clearly co-teaching amongst the teachers.

Recently, Scruggs, Mastropieri, and McDuffie (2007) conducted a metasyn-thesis of qualitative research of co-teaching in inclusive classrooms. This meta-synthesis included 32 original reports of qualitative research on co-teaching and included K-12 information. The study involved a range of grade levels across a range of diverse settings (urban, suburban, rural). One of the conclusions drawn by this study was that co-teaching is perceived as beneficial for all students by administrators, teachers, and students. Another conclusion is that a number of conditions are needed for the success of co-teaching including sufficient planning time and

compatibility of co-teachers. A third finding was the dominance in the literature of the one lead, one support model of co-teaching, with the special educator often playing a subordinate role. Finally, the use of teacher-led instruction was predominately used leading to a lack of individualization and the special educator acting as an assistant.

TYPICAL MODELS OF CO-TEACHING

Co-teaching models are dependent upon two main factors at the secondary level: the content area and the collaborative nature of the teachers. How teachers work together can vary, but typically there are five models of co-teaching (Cook & Friend, 1995; Murawski & Dieker, 2012). One lead, one support involves one teacher leading while the other teacher supports the lead teacher using various strategies and evidence-based practices. Station teaching involves dividing the content and providing instruction in station settings with each teacher leading a station. Parallel teaching involves teaching the same content but in two smaller groups, again with each teacher leading a small group but teaching the entire lesson component of his or her group. Alternative teaching involves dividing the class into one small group and one large group using the small group for re-teaching, pre-teaching, or reinforcement. This model is one we suggest to assist students who need to be challenged (are advanced in their knowledge and need enrichment) or are failing and need more remediation to be successful in the classroom. Team teaching is shared instruction where both teachers have equal voices, presence, and roles within the entire lesson. This model is found more often in elementary classrooms where the content is less challenging or in secondary teams that are in at least their second or third year of co-teaching.

COLLABORATIVE TEACHING

In the inclusive schools observed numerous teachers were collaborating together to meet the needs of students with disabilities. Despite a desire to see special educators in more active roles a majority of the new teams fell within the co-teaching category of one lead and one support. This fact is not surprising due to many special education teachers talking about their limited background in various content areas. Several classrooms were observed used station teaching, alternative teaching, or team teaching.

Although the theme is to focus on the positive, two themes worth noting were: a lack of confidence of some co-teachers in advanced content and struggles of the students with the content of the textbooks. In some cases, the role of the special educator was not clearly above that of a student helper or a para-educator. When asked about why their role was not more involved, the responses often reflected a lack of confidence in the content area. Yet, general and special education teachers alike mentioned that with students included in general education setting needed more time to remediate missing skills, vocabulary instruction, support with reading textbooks and vocabulary. However, in strong classrooms, texts were provided in alternative formats, exams were modified, and vocabulary was grounded in ways that students were successful.

Grading

Grading was discussed across schools and teams as a way to report to parents student progress (e.g., standard-

based report cards, portfolios). These are the questions heard over and over again from secondary teachers across the country. The 'great debate' over how to grade and what grades mean has been going on since the beginning of education. In the case of students with special needs, a true understanding that 'fairness' doesn't always mean 'the same', and that grading and assessment are not about teaching to a test, is needed. Assessing all students should be a daily event, and how those assessments are turned into grades is a completely different issue. Ultimately, to truly assess the learning of students with special needs, the concepts of UDL discussed throughout this book must be at the core of instruction and assessment.

One of the emerging themes in the inclusive districts visited is the move away from letter grades to more rubrics and standards-based reports. The discussion about how to better measure student learning often leads to the same conclusion: teacher and administrators said that the use of a letter grade did not clearly indicate what students did and did not know. In addition, most schools talked about the reason grades still existed was the need to have letter grades for students to go to college, yet three specific districts found that when they moved to a rubric-based report card even at the secondary level they could still get students into colleges. The benefits were strong in that teachers had a common skill to talk about instead of trying to create a way to group all mastery or lack of skills into one letter grade.

Homework

Teachers coordinated efforts across the school and teams to provide a logical structure to when homework was assigned and due. Two of the districts used a book called 'Rethinking Homework' to talk about both homework and grading to re-conceptualize how they would include a wider range of students and still measure learning and assign homework to students. Many teams mentioned that once they thought more about homework specific for students with disabilities, they began to do just as the title of Vatterott's (2009) book indicates, 'rethink' the impact of homework at the secondary level on students with disabilities. For example, Cooper and Nye (1994) found through a meta-analysis no direct connection between achievement and homework. Some methods for improving homework quality and completion were noted but this debate is for all students, specifically students with disabilities, that continues to be an issue at the secondary level. Schools and districts who had consistent homework policies across schools and classrooms seemed to have higher rates of completion of assignments, and special-education teachers talked again about the 'consistent' policy making it easier for them to work across several general education teachers.

TECHNOLOGY USE AND ADOPTION

Schools provided students with disabilities with tools they were taught to use to meet their unique needs to become successful independent learners. Specifically, mobile technology can be utilized with different types of content, including games, apps, and videos as 'Personal learning environments' (PLE; Johnson, Adams, & Haywood, 2011, p. 8). A PLE would allow the students to have ownership of their own trajectory while the teacher sets diverse and individualized learning goals as well as individual assessment (Gee, 2008; Melhuish & Falloon, 2010; Murphy, 2011; Shuler, 2009). Despite looking for technology throughout all 80 schools and numerous classroom visits, providing direct support to students with disabilities in technology courses was not observed. However, four themes emerged related to the use of technology with glimpses of positive and

negative outcomes.

- *Technology without content.* At times, students were observed in visits using technology to simply entertain or keep them busy. Yet at other times, students were engaged with content, but not grounded in the content of the general-education classroom (free time games). Students at the secondary level wanting to use technology is not surprising, students are attracted to digital media and enjoy using mobile technologies and playing video games (Gee, 2008; Gutnick, Robb, Takeuchi, & Kotler, 2010). And in today's classroom, the size of mobile technologies, often called m-learning, allows devices to fit naturally into various learning environments (Chiong & Shuler, 2010) but the use of the tool not grounded in the critical content is no different than students being excluded from the content in more restrictive settings. The reverse was also observed of students being content without any use of technology.

- *Content without technology.* In most of the secondary schools, the use of technology to deliver the content was rarely observed. Students with disabilities with more severe needs were more often found to use some technology for text-to-speech, and some students with disabilities were given electronic text. However, the vast majority of the technology that was introduced was often teacher-centered and was an example provided in the classroom, but was not in the hands of students. Video clips were used from various sources or activities shown on interactive whiteboards, but overall, technology was used to enrich a concept but not for students to have direct experiences with. In addition, students were not seen using technology to help bridge the gap in various areas of weakness related to their disabilities.

- *Technology to replace content teachers.* In mathematics and reading specifically for students with disabilities (especially in special-education classes), technology was used to enrich or replace the math instruction. Many times, the computer was used to remediate skills or to provide content. Even in classes where a constructivist approach to teaching was used, the use of technology to assist students in constructing new ideas and concepts, based on current knowledge (Naismith, Lonsdale, Vavoula, & Sharples, 2004), was not observed. Even though Gee (2008) illustrated how the emergence of PLEs and multiples devices such as Apps could be used to allow a teacher to track student learning while giving the student feedback, this was not observed. However, in order for technology to be utilized to support the secondary content, the content of the technology needs to be pedagogically sound, foster interaction (Melhuish & Falloon, 2010) and aligned with the rich content of the general education setting if students with disabilities are to be successful.

- *Technology to level the playing field.* Using mobile technologies in the classroom could provide an opportunity to harness the existing engagement and interest students have in the technology and focus the usage on learning and education outcomes (Sharples, 2000; Shuler, 2009) as well as provide tools for students to access the curriculum. Due to the relatively low cost of m-learning devices, schools that serve economically-disadvantaged communities can more easily access mobile technologies to provide digital equity (Melhuish & Falloon, 2010; Shuler, 2009). M-learning could be utilized in a variety of educational settings from kindergarten to post secondary to explore the efficacy of utilizing mobile technology to support learning and instructing (Naismith et al., 2004). The technology can be utilized to provide authentic and informal learning activities allowing students to be active learners, collaborate, and interact (Naismith et al., 2004). Embedding mobile technologies into the classroom environment can benefit the learner because the educators could customize the content of the technology to meet individual learning needs while increasing individual ownership and responsibility (Johnson et al., 2011; Naismith et al., 2004; Shuler, 2009). A mobile technology such as the iPad, has significant potential in improving individual's learning outcomes through the use of Apps (Murphy, 2011). Additionally, incorporating mobile technologies into classroom could provide structured environment to provide a PLE as well as increase the student's knowledge of technologies and increase digital literacy (Gee, 2008) to assist in closing the digital divide.

SELF-ADVOCACY PREPARATION

In the more progressive districts, students were very aware of their strengths and weaknesses and discussing how to advocate for their needs based on their disability was common. Yet, all students do not inherently possess self-advocacy and self-determination skills, in many cases these skills needed to be explicitly taught (Jones, 2006). Providing instruction in self-advocacy and self-determination was observed in these schools and the literature supports the instruction in this area to empower students to identify individual strengths, set goals, make independent decisions and choices, and solved problems leading to increased outcomes (Jones, 2006; Kleinert, Harrison, Fisher, & Kleinert, 2010; Wehmeyer, Palmer, Agran, Mithaug, & Martin, 2000). In order to empower a student, self-advocacy and self-determination needs to shift from teacher-directed decision-making and instruction to student-directed learning (Wehmeyer et al., 2000). Student-directed

learning should be practiced while in a nurturing school environment, allowing the teachers to support the process of decision-making, goal-setting, and self-evaluation (Wehmeyer et al., 2000). Self-advocacy and self-determination are necessary for students to actively participate and become independent in decision-making in their academic careers as well as post high school (Kleinert et al., 2010; Wehmeyer et al., 2000). Overall, students knowing their needs created a climate in these schools of what students can do to succeed when given every opportunity.

POTENTIAL IMPLICATIONS FOR THE FIELD AND FOR STUDENTS WITH DISABILITIES

From these observations, highlights of the over 800 pages of notes are grounded in the current status of teaching and access to content for students with disabilities at the secondary level in inclusive climates. The areas discussed have potential implications for general educators, special educators, curriculum specialists, administrators, and teacher educators to consider globally. Although, the scope of these recommendations was derived from the US, these areas could be used to scaffold inclusion of students from a range of backgrounds into the general education settings. The pace, structure, and starting point may vary depending on the resources, progression, and culture of the country, but the same basic principles could be used to create a 5-year plan to progress towards more and more integration of students with a range of disabilities in the general education setting globally.

Leadership.   For leaders in education, the issue of access is a role they must play in any school, district, or country-level role. Leaders should share responsibility in keeping regions, districts, schools, and classes at balanced ratios, while creating class schedules and structure for students with disabilities that are thought through from conception and not as an after-the-fact. Leaders need to ensure that teachers, students, community members, and local governing boards are prepared to understand inclusive practices at all levels. In addition, leaders should talk about the issue of resources and that to move forward the resources cannot be split between two philosophies. Schools observed did not have 'more' special-education teachers but instead just ensured all resources served students in inclusive settings. In addition, the need for professional development for educators to work with students with disabilities as well as professional development specific to advanced secondary-level content for special educators are areas administrators need to ensure they nurture and develop in inclusive schools.

Teachers.   At the secondary level, special educators may need to become content specialists to ensure they are ready to work with general education teachers. Globally, special education teachers may need to become experts in content areas to enhance student outcomes in inclusive secondary settings. At the same time, general education teachers need more preparation to provide richer differentiation and engagement for students with disabilities in inclusive settings.

Technology.   Internationally, students of this generation have a high level of competency to use numerous technologies to provide support in the general education setting (Kaiser Family Foundation, 2010), while at the same time leveraging this tool to help level the playing field for their disability. Schools, teachers, and parents need support in understanding how to use these tools while students need to simply be empowered to

use the tools they have within their daily lives. Although the digital divide is still present to some extent for students from low socioeconomic backgrounds, that gap is closing due to the technologies available in schools, libraries, and throughout the world. The issues seemed to be in these observations was that technology tools were simply not at the core of instruction. Yet, for students to access college and advanced careers, the use of technology must be an ongoing expectation. Therefore, the use of technology for students with disabilities needs to be a strong consideration throughout secondary schools, and how we are preparing students with technology for areas like engineering seems to be a lost conversation in most schools visited. From the observations there were glimmers of this future, for example, one school had purchased iPads for the entire school, but how they would use these tools for students with disabilities and for advanced careers was not clearly established.

Teacher educators.   For teacher educators, globally, the field needs to be certain that those who prepare secondary special education teachers have the highest levels of content knowledge as possible. Providing special educators with the tools in technology can level access for students with disabilities in all content areas only if the teacher understands how to utilize the tools and content together. Throughout the world, finding ways for special educators to be confident in secondary content is critical. For general-education teachers, knowing how to work with students with disabilities as well as how to partner in these content areas with special-education teachers is equally as important. Too many times at the secondary level, teachers are asked to work together with little or no preparation in teaming. In the future, across schools, teachers and institutes of higher education internationally need to focus on how students with disabilities and special education can work as a team.

Schools.   For administrators providing professional development of effective practices for general educators, special educators, and teams working together continues to be an ongoing need at the secondary level from the observations conducted. Considering how to schedule students with disabilities so they have the richest experiences, without overloading the classroom with too many students with disabilities, needs to continue to be a focus regardless of the region of the world. Students with disabilities who come to the secondary level are often missing critical skills. As school leaders identify gaps in foundational knowledge, this issue needs to be addressed across the world. Too many times, students with disabilities lack services or have disjointed services in early grade levels, which creates more work or less inclusive environments at the secondary level. What is needed is a seamless model of access and instruction grades K-12. In addition, students with disabilities need to have the maximum opportunities to be in the most advanced courses possible if the field plans to close the income gap and to provide opportunities for high-level technical careers internationally. Until more students with disabilities are given equal opportunities for inclusive environments throughout their secondary career, and they have highly effective (general and special education) teachers meeting the unique needs of students in learning, behavior, and content, the outcomes for this population of students will continue to be at the margins. Yet in this chapter, the concepts shared highlight the practices that seem to be turning the tide for students at the secondary level in inclusive settings throughout the world.

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39

Students with Disabilities in Postsecondary Education

Robert Stodden and Kelly Roberts

INTRODUCTION

Data indicate that a college education leads to long-term careers and enhanced employment options that a high school education alone does not. High school graduates, based upon US figures, can expect, on average, to earn US$1.2 million over this lifetime; those with a bachelor's degree, US$2.1 million; and people with a master's degree, US$2.5 million (Cheeseman Day & Newburger, 2002). The experience for people with disabilities who earn a postsecondary education degree mirrors that of the non-disabled population (Zafft, Hart, & Zimbrich, 2004). Historically, many people with disabilities were excluded from postsecondary education. However, through civil rights actions and legislation, this has gradually changed and more people with disabilities are entering and completing postsecondary education. However, the success rate of people with disabilities in completing postsecondary education does not equal that of non-disabled peers. While social initiatives and legislative policies focused upon the provision of equal opportunities for education for people with disabilities are in place in many countries, there is still a long way to go (Americans with Disabilities Act, 1990; Canadian Human Rights Act, 1985; Individuals with Disabilities Education Act, 1990; Quinn & Waddington, 2009; United Nations Convention on the Rights of Persons with Disabilities, 2012). This chapter will provide an overview of the status of postsecondary education and people with disabilities.

BACKGROUND

Historical perspective

Today's programs and services for postsecondary students with disabilities are the consequence of years of social efforts and activism, legal mandates, and a change in society's recognition that students with disabilities can compete in the postsecondary environment (Shaw, 2002). Initially, postsecondary education was primarily available to people with disabilities who were hearing or sight impaired or those with mobility impairments. Legislation in the US, passed after World War I, was designed to help veterans with disabilities gain access to postsecondary education and employment. The main focus at the time was on providing equal access by removing physical obstacles for people with mobility or sensory disabilities. However, this shifted to a rights-based approach in the 1960s and 1970s that resulted in the passing of the Rehabilitation Act of 1973 (1973), thus mandating equal access to postsecondary education for people with disabilities. Other countries, primarily those in Europe, followed a similar pattern.

The concept of 'hidden disabilities' became prevalent in the 1980s and institutions saw an increase in student enrollment of those disclosing a hidden disability such as Attention Deficit Disorder (ADD), learning

disabilities (LD), and psychiatric impairments. Students with hidden disabilities increased significantly during the 1990s and are currently the largest category of students with disabilities in postsecondary education in the US (National Center for Education Statistics [NCES], 2011) with similar increases found in other countries (Manalo, Ede, & Wong-Toi, 2010). This fact creates a demand for the development of new services in postsecondary institutions.

Legal mandates in the United States

The Education for All Handicapped Children Act (1975) was renamed the Individuals with Disabilities Education Act (IDEA) in 1990. IDEA placed a greater emphasis on the individual needs of students identified as having a disability in the preschool-12 system. During the same year, the passage of the Americans with Disabilities Act (ADA) recognized the area of hidden disabilities. Specifically, section 504 of the Rehabilitation Act of 1973, coupled with ADA, mandate that universities cannot limit the number of students with disabilities admitted or make pre-admission inquiries regarding whether or not an applicant has a disability. Universities are not allowed to use admission tests or other criteria that inadequately measure the academic qualifications of students with disabilities because accommodations were not made during testing, cannot exclude a qualified student with a disability from any course of study, or establish rules and policies that may adversely affect students with disabilities in the postsecondary setting. Thus, the combination of recognizing hidden disabilities and the new mandates placed on universities through the Rehabilitation Act and ADA provided new optimism for those with disabilities to pursue a postsecondary education.

IDEA (2004) addressed the critical transition from high school to postsecondary school for people with disabilities. Most significant is the requirement of an Individualized Education Plan (IEP) for students, prior to turning 16, to have appropriate measurable transition goals based upon age-appropriate assessments. The goals should be related to training, education, employment, and, where appropriate, independent living skills. IDEA (2004) also requires that students graduating or aging out of the school system be provided by the local education agency with a summary of their academic achievement and functional performance. This summary should include recommendations on how to best meet the individuals' postsecondary education goals. Thus, the intent of an IEP is to provide a 'map' of long-term goals, for the individual with a disability, which does not end at the high school level but extends to the postsecondary stage.

IDEA (2004) also requires that students with disabilities be tested as a means to determine if they are progressing. Standardized assessments include academic achievement tests, intellectual functioning assessments, adaptive behavior scales, aptitude tests, interest inventories, personality scales, quality of life scales, prevocational and employability scales, vocational skills scales, self-determination scales, and transition knowledge and skills inventories. However, IDEA (2004) also allows for assessing the student in non-standardized or informal assessments, which include interviews and surveys, behavioral observation forms and rating scales, situational assessments, curriculum-based assessments, checklists, environmental or ecological assessments, medical appraisals, and person-centered planning procedures (Clark, 2009). The instruments used should be based upon the functional skills of the individual and the recommendation of the IEP team.

In addition to IDEA (2004) and the ADA, other legislation, specifically addresses postsecondary education for people with disabilities. For example, the Higher Education Act of 1965 (1965), reauthorized in 2008 as

Public Law 110-315, establishes the reauthorization of programs to ensure students with disabilities receive a quality postsecondary education. This includes new activities for the development of effective transition practices, improved distance learning strategies, and improvements in the overall accessibility to postsecondary education.

Additionally, the Higher Education Act of 2008 provides new authority and funding for transition programs for students with intellectual disabilities to support their participation and success in postsecondary education and preparation for employment. In addition, the Act established a new advisory commission on accessible instructional materials in postsecondary education for students with disabilities. The advisory commission's goals are to study and develop recommendations related to instructional materials for students with print disabilities in postsecondary education, focusing on the systemic issues, barriers, and possible technical solutions that could affect or improve the timely delivery of the materials.

The Higher Education Act also provides for a new model demonstration program to support improved access to postsecondary instructional materials in specialized formats for students with print disabilities. It authorizes partnerships between postsecondary institutions and other entities with expertise related to serving those with print disabilities. Finally, the Act provides for a national center for information and technical support for postsecondary students with disabilities: to improve the dissemination of best practices related to working with postsecondary students with disabilities; provide information to assist students and their families select and access appropriate postsecondary educational opportunities; and improve the recruitment, retention and completion rates of students with disabilities (Council for Exceptional Children, 2008).

Legal Mandates on an International Level

Legislation concerning people with disabilities around the world tends to focus on equal opportunities. Within Europe, in general, disability legislation tends to guarantee the rights of access to services and covers all public services and organizations. Many European nations have based their postsecondary education policies on international standards such as the United Nations Regulations of Equalization of Opportunity (1993) for people with disabilities. These non-binding regulations were adopted by the General Assembly on December 20, 1993 (resolution 48/96 annex). They represent a strong initiative to work toward the provision of equal opportunities for people with disabilities while also assisting with policy development.

The European Agency for Development in Special Needs Education is involved with the Higher Education Accessibility Guide (HEAG) network of higher education disability support experts. There are 28 countries involved in HEAG activities with partners from the European Union member states, particularly Belgium, Iceland, Norway, and Switzerland.

Notably, New Zealand's domestic laws (New Zealand Bill of Rights Act, 1990; Human Rights Act, 1993; Health and Disability Commissioner Act, 1994) led to the creation of 'Achieve'. 'Achieve' is New Zealand's national postsecondary education disability network. In 2004, Kia Orate, or 'Achieving Equity', was written as New Zealand's Code of Practice for an inclusive postsecondary education environment for students with impairments. New Zealand's education ministry addresses disability and postsecondary education and a 'best practices' code is available incorporating its responsibilities in accordance with the Treaty of Waitangi.

Australia addressed the rights of those with disabilities through its Disability Discrimination Act of 1992

(Disability Rights Education and Defense Fund [DREDF], 2012a). Rather than providing affirmative measures, requiring what agencies and organizations must do to provide for people with disabilities, the Disability Discrimination Act of 1992 takes the approach of mandating what the agencies and organizations cannot do. The Australian Human Rights Commission recognizes the need for increased protection of people with disabilities, and identified education as one of those areas; however, in general the emphasis remains on the K-12 education stage.

Canadian legislation includes the Constitution-Charter of Rights and Freedoms 1982 (DREDF, 2012b), the Canadian Human Rights Act 1976–1977 (1996), and Employment Equity Act 1995 (DREDF, 2012c). The focus again is on achieving equality and eliminating discrimination.

In 1990, China instituted the Law of the People's Republic of China on the Protection of Disabled Persons, which was revised in 2008 (DREDF, 2012d). In addition, China has Regulations on the Employment of People with Disabilities 2007 (DREDF, 2012e). While not directly related to postsecondary education the legislation does impact equality of access to postsecondary education. Ireland has the Employment Equality Act 2000 (DREDF, 2012f), Equal Status Act 2000 (DREDF, 2012g), and the National Disability Authority Act 1999 (DREDF, 2012h). Likewise, Israel has the Equal Rights for People with Disabilities Law 5758-1998 (DREDF, 2012i).

While countries may have more than one regulation that covers equal opportunities, the legislation is primarily intended to equal the playing field for people with disabilities. As noted, not every country has legislation specifically related to post-secondary education, but legislation that focuses on equal opportunities is common and does impact postsecondary education access for those with disabilities.

In addition to the previously mentioned legislation, the United Nations Convention on Rights of Persons with Disabilities (CRPD) is also promoting enhanced education and career opportunities internationally. Since the CRPD passed, over 150 countries became signatories to the convention, with over 100 of these having ratified the convention. The CRPD mandates that Stated Parties shall ensure an inclusive education system at all levels and lifelong learning. Specifically, the CRPD requires Stated Parties to ensure that people with disabilities are able to access general postsecondary education, vocational training, adult education and lifelong learning without discrimination and on an equal basis with others. Stated Parties must provide reasonable accommodations to people with disabilities in the postsecondary education setting (United Nations, The Committee on the Rights of Persons with Disabilities [CRPD], 2012).

Issues of Access and Retention

Global issues of access to and retention in postsecondary education vary between developing and developed countries. According to the United States Agency for International Development (USAID) 'the global state of education is poor' (2011, p. 4). This includes more than 70 million school-age children in developing countries who do not have access to schooling. Dropout rates in primary school remain high and postsecondary education is still not accessible, particularly for marginalized groups such as females and people with disabilities. Factors in developing countries, that impact access to postsecondary education, include 'disparities in income, access to quality high school education, and geographic proximity to education and training institutions, as well as absence of transparent admission policies and procedures' (USAID, 2011, p.

12). These factors still impact many developed countries as well (Middle Class Task Force, 2010).

While accessing postsecondary education is difficult for many individuals, retention is also a challenge in many countries (Organisation for Economic Co-Operation and Development [OECD], 2010), For example, the first year of college is difficult for many students. The personal challenges faced by all students, ranging from housing to commuting to emotional needs to poor grades, are often exaggerated for students with disabilities who require specialized living arrangements, transportation assistance, and more. Since the overall university student dropout rate in the United States is the highest in the industrialized world at 37% (NCES, 2011), students with disabilities face greater challenges due to the demands of attending to medical or physical needs regularly, compared to their non-disabled counterparts. Being slowed down by physical or medical needs and having to dedicate additional time and attention to choreographing their support and added services can be overwhelming to students dealing with the everyday challenges of postsecondary education.

Although positive change is apparent for students with disabilities in postsecondary education, the provision of disability services and supports, in both high school and postsecondary school environments, are often inconsistent and lacking in quality. Effective high schools, that include career preparation and transition planning, show progress in serving students with disabilities (Bangser, 2008). The same strategies that serve these students well can improve high school outcomes for *all* students. At the kindergarten through 12th-grade level, there are critical elements identified by experts to promote high school reform and enhanced educational outcomes for youth with disabilities towards completion of postsecondary education. These elements include: close relationships with adults (often best accomplished through smaller schools); opportunities for students to apply their knowledge in realistic settings; high levels of teacher and school personnel quality and capacity; incorporation of technology as a tool to raise student achievement; aligned educational standards across all school districts and colleges; understanding one's own disability; knowledge of educational supports that serve as compensatory strategies to level the playing field and improve access to and completion of postsecondary education; and rigorous curricula.

Having these elements in place, implemented in the K-12 educational system, can greatly increase entrance into postsecondary education for youth with disabilities. However, even with school personnel in the K-12 system adhering to the critical elements and assisting youth with disabilities to achieve their IEP goals, the situation changes substantially once students enter postsecondary education. In the postsecondary education system, in order for an individual to receive services, they must: (a) disclose their disability, (b) provide documentation of their disability, and (c) request specific supports, services, and accommodations to meet their needs in order for them to succeed in their classes. In the NCES (2011) Students with Disabilities at Degree-Granting Postsecondary Institutions study, 92% of institutions report that they require verification of student disabilities for some purpose, although NCES did not request the specific purpose of the verification (NCES, 2011). Of the institutions within the 92%, 44% accept an IEP, 40% accept a 504 Plan from a high school as sufficient, stand-alone verification, and 80% accept a comprehensive vocational rehabilitation agency evaluation.

Accomplishing the steps to access services requires a skill set that many students with disabilities do not have, creating barriers that impede success in postsecondary education. The issue that arises during high school is the lack of preparation for the transition to entering postsecondary education. In addition, primary gaps exist with the fragmented and inconsistent support services available in postsecondary education settings.

The gaps, coupled with the unexpected responsibility required of the students to essentially become their own case managers, are often overwhelming and insurmountable.

Continued barriers faced by students with disabilities as they enter and continue in postsecondary education include student unpreparedness, faculty needing more training, weak self-determination skills, and evidence-based practices that are ignored by institutions.

Exacerbating the problem is the fact that faculty members and other personnel staff in postsecondary education institutions are often unaware of the specific needs of students with disabilities. Similar to high school teachers, postsecondary faculty are unprepared in the differentiated instructional methods they need to assist students who are at risk of failure. Postsecondary faculty members are often not trained, or are unaware of the array of technology (e.g., information and assistive technologies) that is available to help *all* students learn more effectively in their classes. Among postsecondary education institutions that enrolled students with disabilities during the 2008–2009 academic year, 72% of faculty provided written course notes or assignments, 72% provided help with learning strategies or study skills, 71% provided alternative exam formats, and 70% provided adaptive equipment and technology (NCES, 2011). Educational supports and services offered to postsecondary students with disabilities are not well integrated with classroom instruction. Often it is the responsibility of the student to make this linkage. Additionally, while 93% of institutions reported using a main website to post information about the institution, only 24% of those institutions follow established accessibility guidelines or recommendations for users with disabilities to a major extent.

Students with disabilities transition much better from high school to postsecondary education when high school personnel implement specific strategies such as self-determination training and having students successfully use accommodations while in high school. Preparation in high school can better prepare students to access postsecondary education and to be more confident in seeking the accommodations they need to succeed.

One strategy that can assist students to be more effective when seeking accommodations is attending workshops or classes that prepare first-year students with disabilities and other at-risk students to succeed. Conferences and courses on goal setting and achievement are examples of supports offered to high school students and college freshmen in various states (Hong, Ivy, Gonzalez, & Ehrensberger, 2007). While research shows that these conferences greatly enhance the chance of success, these support pathways are rare, and there remains a limited opportunity for students to connect with their counterparts in previous cohorts. Sharing experiences, issues, and challenges from one cohort to the next increases knowledge and decreases anxiety for new students. However, students who have succeeded before, and who would serve as excellent role models and team planning participants, are not invited to assist those who hope to follow their example.

RESEARCH-BASED SOLUTIONS

Solutions for preparing students for postsecondary education

Facilitating a personal atmosphere and close relationships between students and staff at the high school level is imperative for preparing students for a postsecondary education. While it often easier to implement in smaller schools, all high schools can implement strategies to foster closer relationships among students and staff, such as dramatically restructuring schedules, creating 'schools within a school', or building new facilities.

Additionally, a new standard should be in place to require evidence-based strategies to improve one-on-one relationships with at-risk youth. By encouraging families to develop collaborative and mutually beneficial relationships with high school staff, employers, and postsecondary personnel, the students who face impending transition are more likely to be successful. Successful people with disabilities, who mentor youth with similar challenges, should be provided incentives to serve as role models in order to effect change and continuity. Follow-up studies should be funded for students who are educated through these reforms, one year and three years after leaving school to record their outcomes and refine future efforts. Advocacy efforts need to continue to force improvements, until adult outcomes for people with disabilities match those of their non-disabled peers.

Opportunities should be provided for students to apply their knowledge in realistic settings. Employers should be given incentives to offer students a variety of work experiences (e.g., job shadowing, job 'try out' internships) that are closely linked to their academic studies and future career goals. By enabling more effective collaboration among employers, career guidance staff, and students, a cohesive and effective team can be built.

Moreover, vocational rehabilitation (VR) agency involvement can be increased by increasing the awareness of people with disabilities and the support persons in their lives as to the availability of VR services. IEPs should be used to identify 'career prep' opportunities, including those provided by VR, for students with disabilities and to regularly record students' progress as they explore careers. Self-determination should be promoted to encourage students to actively participate and take responsibility for their own career preparation and/or transition to college.

Teachers and school personnel should be prepared to deliver the highest quality of education. The overall educational system can be improved by ensuring *all* educators are highly qualified and trained to teach students at-risk through licensure requirements, mentoring of new teachers, and incentives. Teachers should be required to continue training in the classroom setting and in the field to hone and update their knowledge and document this with individual professional development plans. It is vital to encourage stakeholder involvement to design and implement evidence-based professional development activities. This can be accomplished economically if districts are given 'targeted finances' to fund long-term support and incentives to 'master teachers' and other professionals. Also, state grants and other research related to curriculum-teacher competency and retention should be funded. Outcomes should be reported in order to continuously refine strategies in this area.

Multiple uses of technology should be incorporated as a tool to raise student achievement. Providing up-to-date computer technology to reform efforts which link technology use to career preparation and the future goals of youth at risk is important. Continual improvements and support to ensure competency in the use of technology by all students and the staff who serve them is also necessary. Personal assistive technology should be provided to students with disabilities, such as computer software and hardware for impairments (including auditory, visual, and learning), and mobility devices for physical impairments. This enables students with disabilities to improve functions of daily living, which are often barriers to their pursuit of a challenging education and career.

Another successful strategy is creating opportunities for students with disabilities to gain access to postsecondary education settings. One such program is referred to in the US as the 'Postsecondary Academy'.

Postsecondary Academies are single-day events available to high school juniors and seniors with a wide range of disabilities. The one-day event usually consists of tours of campuses to familiarize students with various departments, college recreational programs, disability service offices, and instruction on how to access tutoring, counseling, and advising services. Implementation of the Postsecondary Academy increases awareness of students, families, and high school staff of postsecondary education opportunities and requirements (Kato, Nulty, Olszewski, Doolittle, & Flannery, 2006).

Solutions for accommodating people with disabilities in postsecondary education

State policies should be aligned with national reform efforts that include evidence-based strategies, and within states, educational standards should be aligned at all levels and across school districts and postsecondary institutions. Advancement to postsecondary education and/or professional careers should be based on common and multiple measures of readiness rather than just single high-stakes academic tests. Participation and accountability of stakeholders at all levels, from students and families, to teachers, to all administrators should be insisted upon. Stakeholder commitment to the design should be encouraged, including implementation and outcome evaluation of all standards alignment efforts.

One relatively new concept that aligns with the provision of accommodations is that of universal design (UD) for instruction and learning. Although the UD concept, as associated with architectural access, has roots in Europe, Japan, and the US dating back to the 1950s, utilization of UD, as a means to address the learning needs of a wide and varied range of people, did not begin until the 1970s (Roberts, Park, Brown, & Cook, 2011). Taking the original seven principles created by the Center for Universal Design for environmental accessibility and applying the framework to postsecondary education, Shaw, Scott, and McGuire (2001) devised nine UD principles for instruction.

These principles include:

1. Equitable use: Accessing course information, such as syllabi, in a variety of formats, including print, disk, and online.
2. Flexibility in use: Varying instructional methods, including lecture, discussion, and individual and group activities.
3. Simple and intuitive: Clearly describing course expectations for grading, in different formats, for example narrative and rubrics.
4. Perceptible information: Using videos that include subtitles, or captioning, for those who may not hear, for whom English is not a first language, or for those who have trouble processing verbal information.
5. Tolerance for error: Providing ongoing and continual feedback on coursework rather than at specified interim periods, such as mid-term or final exams.
6. Low physical effort: Providing lecture notes, so students who have difficulty taking notes do not need to take notes.
7. Size and space for approach and use: Making seating easily accessible, if possible, so everyone can see each other and communicate with one another directly.
8. Community of learners: Creating a variety of learning settings, for example, use of email groups, social networking sites, or chat rooms.
9. Instructional climate: Including a statement in the syllabus indicating the desire to meet the instructional needs of all students and for students to convey their needs to the instructor.

Users of UD in education foresee the needs of diverse learners and incorporate effective strategies into instruction and curricula, resulting in a teaching environment that is conducive to all learners. Proponents of UD for learning and instruction argue that its use eliminates the need for many types of accommodations, while increasing access to learning for all learners. For example, if an instructor provides all of their materials in electronic format, a student with visual impairments who uses screen-reading software as an

accommodation will not have to specially request the materials in electronic format. Likewise, students with dyslexia can then use the electronic version of the materials to have the course content read to them. Other students, both with and without disabilities, can put the electronic information on their 'electronic books' and make the materials portable.

Yet, postsecondary institutions identify barriers to implementing UD, including limited staff resources to provide faculty and staff training on accessibility, costs associated with purchasing appropriate technology, and other institutional priorities (NCES, 2011).

Solutions for improving the retention and completion of postsecondary education by students with disabilities

Research-based solutions to improve access to and completion of postsecondary education include improved faculty and staff (e.g., instructional faculty, financial aide personnel, student service personnel, and disability support personnel). Faculty and staff should have knowledge and skills on a range of disability-related topics, such as the rights and responsibilities of both the institution and the individual student and the common characteristics of a range of disabilities, including learning disabilities, other hidden disabilities, and medical conditions. To support students with disabilities, postsecondary institutions should make assistive technology and various types of appropriate accommodations available. The intent of such accommodations is to level the playing field and *not* to provide an unfair advantage. The need to provide appropriate accommodations to students with disabilities in postsecondary education is substantial and includes training for faculty and support personnel so they are knowledgeable of appropriate accommodations and their use. Some of the most widely used accommodations, as indicated previously, include: extended time on tests; quiet rooms for testing; note takers in class; access to a computer to take exams; multi-modality instruction/UD; flexible assignments; flexible deadlines; accessible classrooms; approval to turn in assignments late as appropriate to the disability and situation; sign language interpreters; and materials available electronically for easier access. Universally designed instruction that focuses on making course content accessible to all students should be implemented as a best practice.

It is necessary for faculty, and others who may interact with students with disabilities, at the postsecondary education level to become knowledgeable, in the areas mentioned above, as relevant to their own roles and responsibilities.

Increased connectedness with peers and other supportive people can be accomplished through networking. Feeling and being 'connected' to others is an important consideration for everyone. Research has shown that a sense of belonging is a primary indicator of success in postsecondary education. Some strategies to improve postsecondary education institutions in creating a 'connected' environment include smaller learning communities that provide for cohorts of students to, at a minimum, take their prerequisite courses together. Results include increases in retention and GPAs and higher levels of completion. In addition, smaller learning communities also are shown to make the transition from high school to postsecondary education easier. Disability support groups are important to assist students better understand their disabilities and provide peer support. Mentoring programs including reciprocal mentoring where students with disabilities serve as mentors for postsecondary education faculty and staff and vice versa is necessary for a better understanding between

students with disabilities and faculty and staff. Peer-mentoring programs are also valuable and provide support for students as they maneuver through the requirements of postsecondary education.

By increasing access to technology, students with disabilities have a greater chance of completing postsecondary education. The range of assistive and other technologies on the market today has the potential to increase access to and success in postsecondary education. However, students with disabilities do not always have access to such resources. For example, according to students with disabilities in postsecondary education, one of the primary reasons they do not use the available technology is the cost. However, this dynamic is changing with the advent of 'Smart' phones and similar technologies that have communication applications and voice recognition capabilities. The latest advancements in technology reduce the costs and increase accessibility. There is still an issue of training on the use of the technologies because if training is not provided the technology is likely to go unused, or not be used to its fullest capacity.

FUTURE DIRECTIONS FOR RESEARCH AND PRACTICE

Few steps have been made toward creating statewide standards at the postsecondary level. This option could ultimately be more efficient and cost effective, as it is in countries in Europe, such as Germany. The lack of standards also makes accountability, for the outcomes experienced by students with disabilities, easy to ignore. In order for accountability to be feasible, the various institutions, agencies, and personnel who share the responsibilities for providing supports and services need to be aware of specific post-school outcomes. By creating statewide postsecondary education standards, accountability should increase. Reform efforts that work for all students will also work for students with disabilities; in fact, the same strategies that improve the outcomes for students with disabilities can also serve all at-risk youth.

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Cross-phase issues of teaching and learning

40

Teacher Assistants in Inclusive Classrooms

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As schools around the world seek to provide inclusive educational opportunities for students with disabilities and other special educational needs, a common response has been to assign teacher assistants (TAs) to provide support. In this chapter, we purposely use the term *teacher assistants* rather than *teaching assistants*, because in all the cases we identified around the world, these individuals who are known by a variety of names (e.g., learning support assistants, paraprofessionals, teacher aides), always *assist teachers*, though not exclusively or necessarily with *teaching*. Although benevolently intended, providing TA support for students with disabilities has raised a variety of concerns about their utilization and has resulted in a large volume of literature. The purpose of this chapter is to summarize a selected subset of peer-reviewed studies primarily about school-age students with disabilities in general education classrooms published between 2005 and 2012. Although the majority of studies emanate from the United States and the United Kingdom, research also is included from Australia, Belgium, Canada, Cyprus, Iceland, Ireland, Italy, Finland, and New Zealand. Although it is beyond the scope of this chapter to provide detailed explanations of the various educational service delivery systems used in each country, it is important to recognize that there are notable differences across the globe. For example, the United States relies on special education teachers in inclusive schools, whereas the UK utilizes the role of SENCO (Special Educational Needs Coordinator); while these roles share some common elements, they are not equivalent. Additionally, a broader international perspective is provided in brief statements from colleagues offering a glimpse of TA practices in 11 countries (see Table 40.1).

   This chapter is divided into four main sections. First, we summarize research findings covering longstanding issues well established in earlier studies that remain persistent concerns (e.g., role clarification, training, supervision). Second, we present research that extends more recently initiated lines of inquiry (e.g., effects of proximity, student voice, models of deployment). Third, we highlight research about emerging subtopics where scant data or conceptualizations previously existed (i.e., TA support and academic achievement, alternatives to inappropriate overreliance on TAs). We conclude with implications for practice in inclusive schools and future research.

RESEARCH ON LONGSTANDING ISSUES

A substantial amount of recently published research about TA issues replicates longstanding findings that have been available in the literature for 20 years or more. While these findings are not new, the research highlights their persistent nature and documents their presence in several countries. The persistent findings we identified are summarized in Table 40.2.

Extended research on more recently initiated lines of inquiry

In the late 1990s and early 2000s, research emerged on a set of subtopics pertaining to TA support of students with disabilities in inclusive classrooms. In general, the amount of data on these topics was modest and may be characterized as preliminary. The findings summarized in this section extend this more recent research.

Teacher assistant proximity

In a recent US study (Giangreco & Broer, 2005), 153 TAs reported that they spend the vast majority of their time (M = 86%) in close proximity (within 3 ft.) to the students with disabilities they support. Although this is not particularly surprising, it is notable that less than 15% of these TAs expressed concern that their proximity might be unnecessary, or interfere with teacher or peer interactions, and only about 37% express any concern that students may be unnecessarily dependent on them. Consistent with earlier research suggesting that TA proximity had both potential benefits (e.g., academic engagement) and drawbacks (e.g., dependency, stigmatization, interference with teacher engagement), an Icelandic study by Egilson and Traustadottir (2009) acknowledged that TAs can promote participation and learning for students with disabilities, but cautioned that their constant presence can limit students' use of their own capabilities and may create unnecessary or unhealthy dependencies.

Table 40.1 International perspectives

Country	Statements about TAs
Belgium	There are almost no 'teaching assistants' in Belgian schools. In Flanders, when students with disabilities attend regular classes, a special education teacher provides in-class support 2–5.5 hours per week depending on the type of impairment. Some families receive a personal budget from the government to finance and hire supports their child may need in regular environments, including school. These support-givers are not members of the school team, which can cause friction and isolation in some of cases. This can also create extra work for parents, who become bridging agents between their 'home team' and the 'school team'. Sometimes parents and schools agree to utilize volunteers (e.g., university students, retired teachers). (Geert Van Hove, Kathleen Mortier, & Elisabeth DeSchauwer, University of Ghent)
Canada	Across and within each Canadian province variation is found in: (a) the titles used to refer to TAs (e.g., attendants, technicians, preposés, educational assistants), (b) training levels, (c) roles, and (d) the extent to which they are utilized. For example, in New Brunswick, which has legislation strongly favoring inclusive classroom placement and where 10.6% of students are on *special education plans* (SEP), there is on average: (a) one special educator called a *resource teacher* (in full-time equivalents) for every 25.5 students with disabilities with an active SEP, (b) eight times as many TAs as resource teachers, and (c) one TA for every 5.5 students on a SEP. These ratios mean resource teachers spend significant time attempting to manage assistants and less time teaching students and supporting classroom teachers. Insufficient available planning time among team members poses a significant barrier to effective inclusive education. (Karen Gazith, Bronfman Jewish Education Centre, Montreal, & Brian Kelly, New Brunswick Department of Education)
Iceland	The use of teaching assistants in Iceland varies between local authorities depending on: (a) their supply, (b) use of professionals in class with teachers (e.g., special needs teachers, developmental therapists/social pedagogues), (c) team teaching arrangements, (d) the number of students with diagnostic labels, and (e) education budgets for addressing student diversity. Their use is most common for students with diagnostic labels in mainstream classes, particularly students with autism and behavioral challenges. Increasingly they have completed courses specially-designed for them. Too often, time is not made available for common preparation between class teachers and their assistants, leading to lack of coordination of their work in class. (Gretar L. Marinósson, University

	of Iceland School of Education)
India	India adopted *The Right of Children to Free and Compulsory Education Act or Right to Education Act (RTE)* in 2009. While the act does make education a fundamental right of every child between the ages of 6 and 14, the move toward including students with disabilities in regular classrooms is very slow. Government run schools do not employ TAs; however, there are education volunteers. These volunteers, trained by the government, primarily perform care-giving supports for children with disabilities in schools designed for students with specific disabilities. (Kim Bane, American International School of Chennai, & Dipti Bhatia, Vidya Sagar)
Italy	The vast majority of students with disabilities in Italy attend regular classes all or most of the time. Support teachers (*insegnante di sostegno*) are assigned to classrooms where students with disabilities are present for an individually-determined number of hours per week to support classroom teachers. Students with severely-impaired autonomy also may be assigned an assistant to address primarily non-instructional needs (e.g., mobility, personal care). Nationally, there are more *insegnante di sostegno* than assistants. Assistants may pose barriers to inclusion if their presence reinforces curricular teachers' tendencies to delegate too much interaction with disabled students to 'special' personnel. (Laura Nota & Salvatore Soresi, University of Padova)
Finland	During the past 20 years, Finland witnessed a huge increase in the number of teacher assistants. There are now more assistants than special education teachers. They are considered a major accommodation for special education, which continues to be quite segregated (6% of all students attend special class at least part-time). In 2010, there were 9,700 TAs for 46,000 students enrolled in special education. The teacher's union has supported the growth of the number of assistants, but has criticized their use as substitutes for teachers. Although a 1-year certificate program has been available since 1995, only a small number of assistants have this formal training. The title of teacher assistant has recently changed to 'supervisor of school attendance'. Officially, their work should constitute assisting and guidance of students, but in practice, assistants often substitute for special education teachers; this happens especially when the assistants work in regular classes. (Timo Saloviita, University of Jyväskylä)
Malta	Recently the name and role of TAs in both inclusive and special schools in Malta has been changed to *Learning Support Assistants* (LSAs). The State's Educational Services Directorate requires a training course of 70 or 140 hours for all new LSAs and the University of Malta has offered more extensive training since 1994. In recent years, the number of LSAs in State, Church and independent schools has increased markedly, up from 1,142 LSAs supporting 1,507 students in 2005 to 2,029 LSAs supporting 3,231 students by 2011. A new role, *Inclusion Coordinators* (INCOs), has been established in Malta with the aim to coordinate and support both teachers and LSAs. In practice, many INCOs are liaising mainly with LSAs rather than with teachers, raising concern that this may inadvertently contribute to teachers abdicating their responsibilities to students with disabilities in their classes. (Elena Tanti Burlò, University of Malta)
New Zealand	Often inadvisably regarded as 'the solution to inclusion', the work of teacher aides in New Zealand schools is characterized by ambiguity and inequity. Their duties vary considerably (e.g., learning support, personal care assistance, student safety). In the absence of national policies or guidance, teachers are left to figure out how to utilize teacher aides. Some teachers and teacher aides work effectively in partnership. While inappropriate, other teacher aides are expected to compensate for some teachers' lack of involvement with disabled students. No training or qualifications are required for teacher aides, they are not well paid, and have little job security. Combined, such conditions perpetuate the injustice of assigning the least qualified school personnel to students who often present the most complex learning characteristics, thus compromising students' right to education. (Gill Rutherford, University of Otago)
Singapore	Formerly known as Special Needs Officers, Allied Educators for learning and behavioral support (LBS) assist in the academic and social inclusion of students with mild disabilities within mainstream primary and secondary schools in Singapore. Their roles and responsibilities include the provision of specialized remediation to students identified with learning and behavioural

difficulties through both withdrawal and in-class support. They collaborate with teachers, parents and others to better understand and manage students' needs. All Allied Educators (LBS) are trained in a 1-year diploma program in special education at the National Institute of Education (Singapore's national teacher education body) before being posted to mainstream schools by the Ministry of Education. (Levan Lim & Thana Thaver, Nanyang Technological University National Institute of Education)

South Africa	Currently there is no formalized role for TAs in South Africa, and their deployment is very limited outside of special schools. They are most likely to be employed by parents to support their child in more affluent schools, frequently as a pre-condition of admission. This practice is not condoned by the Department of Basic Education (DBE) as it imposes an undue burden on parents and does not make optimal use of support personnel for all learners in the classroom. There is a government initiative to deploy itinerant learning support educators across a number of schools; this is a higher priority than deploying TAs. The DBE acknowledges that TAs have a role to play supporting children with severe disabilities, which will require role clarification and training. (Judith Mckenzie, University of Cape Town, & Marie Schoeman, Department of Basic Education)
Vietnam	Presently, paraprofessionals are rarely used in Vietnam; the country relies on general educators, special educators and related service providers to facilitate inclusion of students with disabilities. A 2010 law on disability includes a statement about using TAs to support inclusive education; however, the resources to make it a reality are not available. Some schools have mobilized parent volunteers in paraprofessional-type roles to support the development of social skills for children with disabilities. Recently, a small number of regular schools in Vietnam began piloting of models for using TAs to support children from ethnic minorities who face language difficulties. (Khanh Nguyen, Catholic Relief Services/Vietnam, & Richard Villa, Bayridge Consortium Inc., San Diego, CA)

Other recent studies have bolstered earlier research indicating that proximity of TAs can be detrimental by inadvertently creating barriers to interactions between students with disabilities and their teachers and peers (Harris, 2011; Malmgren & Causton-Theoharis, 2006). These studies indicated that students with disabilities had fewer interactions with their teachers and peers when the TAs were in close proximity, and more when assistants were more distant. This supports earlier research suggesting that when TAs vacate the space close to students with disabilities, it creates opportunities for others to fill it. Devlin's (2005) study demonstrated that awareness and training for teacher-paraprofessional teams about these issues increased teacher interactions with students with disabilities and highlighted the importance of training teachers and their assistants together.

Table 40.2   Replication research on longstanding issues

Persistent findings in the recent research	Selected sources
The utilization of TAs continues to increase in a variety of countries (e.g., Australia, Ireland, UK, USA).	Blatchford et al. (2011), Bourke (2009), Giangreco & Broer (2005), Logan (2006).
TAs continue to work with students who have a wide range of characteristics, and they are engaged a wide range of support roles (e.g., personal care, behavioral, instructional).	Carter, O'Rourke, Sisco, & Pelsue (2009), Groom & Rose (2005), Logan (2006), Rutherford (2011), Takala (2007).
Some TAs continue to be expected to perform tasks beyond their skill/qualification level and/or engage in inappropriate roles (e.g., curricular adaptation, instructional planning) more appropriately performed by qualified teachers and special educators.	Butt & Lowe (2011), Giangreco & Broer (2005), Rubie-Davies, Blatchford, Webster, Koutsoubou, & Bassett (2010), Rutherford (2011), Webster et al. (2010).
Determining appropriate roles for TAs continues to be plagued by	Angelides, Constantinou, & Leigh (2009), Butt & Lowe (2011),

confusion, ambiguity, and lack of clarity.	Fisher & Pleasants (2011), Howard & Ford (2007), Logan (2006), Rutherford, 2012), Webster et al. (2010).
Too many TAs continue to receive inadequate training and insufficient supervision.	Chopra, Sandoval-Lucero, & French (2011), Giangreco & Broer (2005), Howard & Ford (2007), Suter & Giangreco (2009), Webster et al. (2010).
TAs experience a variety employment challenges (e.g., low pay, low status/marginalization, lack of job security, stressful working conditions) affecting their job satisfactions and resulting in problems for schools and students (e.g., high turnover, hidden costs, lower quality services, lack of continuity).	Devecchi, Dettori, Doveston, Sedgwick, & Jament (2012), Ghere & York-Barr (2007), Howard & Ford (2007), Logan (2006), Shyman (2010).

Models for training and supervising TAs

Several studies have highlighted the importance of training TAs, and documented effective training and challenges of various approaches (Bourke, 2009; Butt & Lowe, 2012; Devlin, 2005; Malmgren, Causton-Theoharis, & Trezek, 2005; Rispoli, Neely, Lang, & Ganz, 2011; Robinson, 2011; Steckelberg et al., 2007). Related research supports the logical contention that supervision has a positive influence on TA performance (Chopra, Sandoval-Lucero, & French, 2011). These studies suggest that investing time in training and supervising TAs is likely to result in their learning and applying targeted skills. Yet, as indicated in Table 40.2, lack of sufficient training and supervision are cited as persistent problems in the field; in many schools adequate training and supervision remain the exception rather than the norm.

Service delivery issues offer one potential explanation for the mismatch between what is known versus what is done. A series of studies have consistently identified that many inclusion-oriented schools employ more special education TAs than special education teachers and, on average, each assistant receives only about 2% of a special educator's time for ongoing training and supervision (Giangreco & Broer, 2005; Giangreco, Suter, & Hurley, 2013; Suter & Giangreco, 2009). While what constitutes adequate training and supervision remains open to debate, even in situations where they are considered adequate, questions persist about the logic and equity of providing students with disabilities a significant amount of their instruction from TAs while those without disabilities receive their instruction from qualified teachers (Giangreco, Suter, Hurley, 2013; Rutherford, 2011; Webster et al., 2010). Therefore, while training and supervision of TAs remains essential, appropriate utilization is vital to ensure their roles do not inadvertently create a well intended, but ultimately second-class, educational model for students with disabilities in general education classrooms.

Listening to students' voices

Historically, TAs have been the primary stakeholder group queried in descriptive research about TA issues, and to a substantially lesser extent special educators and teachers. Students with disabilities and their parents were rarely asked for their perspectives about TA issues until the early 2000s. Since then, more studies have emerged that explore the perspectives of students with disabilities about their own supports (Broer, Doyle, & Giangreco, 2005; Egilson & Traustadottir, 2009; Mortier, Desimpel, DeSchauwer, & Van Hove, 2011; Rutherford, 2012; Tews & Lupart, 2008). These studies report a range of findings and share two consumer-oriented themes: (a) too often, supports from TAs are not having their intended positive impact, and (b)

educational teams need to listen more attentively to the perspectives of students and provide mechanisms to solicit their input as key decision-makers about their own supports. Recent research has also begun to explore the perspectives and roles of TAs in providing instruction regarding self-determination (Carter, Sisco, & Lane, 2011; Lane, Carter, & Sisco, 2012).

Models of TA deployment

Minimal research is available on the deployment of TAs in classrooms beyond the growing body of cautionary literature about inadvertent detrimental effects associated with their one-to-one assignment (Giangreco, 2010). A notable exception is a study by Cremin, Thomas and Vincett (2005), building on their earlier research. They reported on three models of team organization and planning to utilize TAs at the classroom level: (a) room management, (b) zoning, and (c) reflective teamwork, each of which resulted in improved student engagement in the classrooms studied and favorable evaluation by the teachers and TAs who participated. Ultimately, these approaches are consistent with related research that emphasizes the importance of collaboration, communication, and mutual support among team members when pursuing inclusive education and whole school approaches (Devecchi, Dettori, Doveston, Sedgwick, & Jament, 2012; Devecchi & Rouse, 2010).

RESEARCH ON EMERGING TOPICS OF INQUIRY

Teacher assistant support and academic achievement

A substantial body of literature pertaining to the relationship between TA support and academic achievement has been compiled by the Deployment and Impact of Support Staff (DISS) project, a large-scale, longitudinal research project based at the University of London's Institute on Education; here we refer to a small subset of its key findings (Blatchford et al., 2011; Rubie-Davies, Blatchford, Webster, Koutsoubou, & Bassett, 2010; Webster et al., 2010). University of Manchester researchers also offered a major contribution to this topic, a review of the literature on the impact of TA support on academic achievement (Farrell, Alborz, Howes, & Pearson, 2010). These two sources differ from the other literature included in this chapter on a key dimension; whereas the other research focused primarily on students with disabilities in inclusive classrooms, these sources also included nondisabled students, both those with and without identified delays (e.g., literacy). It is noteworthy that both of these sources are based on the utilization of TAs in the UK. Therefore, it is important to recognize that although there are some areas of commonality with some other countries, there are also national differences.

While the DISS project data substantiated many of the longstanding challenges associated with the utilization of TAs (see Table 40.2), what makes the data set unique, beyond its large scope, is its reporting of negative relationships between the provision of support by TAs and achievement in academic subjects (i.e., English, math, science; Webster et al., 2010). Students who received supports from TAs achieved lower levels in 76% (16 of 21) of comparisons across seven grade-levels, and no differences were identified in the remaining five comparisons. Investigators found that students receiving the most support from TAs made less academic progress than similar pupils with less support from TAs; this was not explained by student

characteristics such as prior attainment or level of special educational need.

The researchers identified potential reasons for these negative findings in terms of a 'Wider Pedagogical Role' model that had three key components. The first two are covered elsewhere in this chapter, namely, deployment (e.g., the separation of TAs from the curriculum and the teacher) and preparedness (in terms of time to meet with teachers and training for TAs and teachers to work with TAs). The third dimension, which the researchers call practice, refers to the interactions between TAs and students. In an observational study highlighting differences between teacher-to-pupil and TA-to-pupil talk (Rubie-Davies et al., 2010), teachers were more likely to open up student talk, both linguistically and conceptually, as they: (a) informed students about the focus of lessons, (b) spent more time explaining concepts, (c) provided feedback, (d) linked current learning to pupils' prior knowledge, and (e) used prompts and questions to encourage thinking and check for understanding. Conversely, TAs tended to close down student talk by more frequently: (a) focusing on task completion, (b) providing answers, (c) completing student work, and (d) offering confusing or inaccurate information. The research team concluded that since students with disabilities receive more support from TAs, 'it is likely that the more marked [negative] effects on progress can be explained in terms of these lower quality interactions' (Webster et al., 2010, pp. 330–331); they encouraged schools to provide students with disabilities more, not less, instructional access to highly qualified teachers.

Farrell et al. (2010) offer a somewhat more optimistic perspective on the utilization of TAs under certain conditions. Their review suggests that academic achievement of primary aged students with identified learning difficulties (e.g., literacy) demonstrated academic gains following a period of targeted intervention from trained TAs and more ambiguous findings where support was of a more general nature and not directed at pupils with identified difficulties, leading them to acknowledge that TAs in mainstream classes may not have a positive impact on the achievement of all students. These conclusions are consistent with research indicating that TAs can learn and apply their skills when explicitly trained and supervised. The findings from this review of targeted pre-post interventions do not necessarily contradict conclusions reached from the DISS project, which were based on a naturalistic design, reflecting what actually happens in many schools, namely inadequate training and supervision.

Alternatives to overreliance on TAs

In recognition of the inherent inequities and practical limitations associated with models of educational service delivery that are highly reliant on the use of TAs, recent research has begun to explore alternatives. Giangreco & Broer (2007) field-tested a 16-item screening tool to assist schools in determining the extent to which they may be overreliant on TAs. A corresponding school-wide self-assessment and planning process was also field-tested in inclusion-oriented schools to assist in selecting and implementing locally-relevant alternatives to overreliance on TAs (Giangreco, Broer & Suter, 2011). Stakeholders involved in this process (e.g., teachers, parents, special educators, administrators, TAs) favorably reviewed its use and impact, reporting a variety of positive outcomes (e.g., changes in TA utilization, changes in school service delivery, increased inclusive opportunities, improved classroom collaboration and practices). Schools in this study typically selected a small, individualized package of alternatives (e.g., resource reallocation, changing working conditions of special educators, developing school-wide supports), rather than relying on a single alternative.

Peer supports have gained recognition as an alternative to overreliance on TAs that can serve as one component of a school's overall improvement plans (Carter, Sisco, Melekoglu, & Kurkowski, 2007; Rutherford, 2011). When thoughtfully implemented, peer supports are well suited to inclusive settings and have demonstrated benefits for both students with and without disabilities.

Related research has focused on a variety of school service delivery parameters (e.g., ratio of TAs to special educators, special educator caseload size and range, personnel-time use) as key contributors to providing effective inclusive education in some US schools. This line of inquiry has established correlations between *special educator school density*, namely the ratio of special education teachers (in full-time equivalents) to total school enrollment, and both the percent of students identified as disabled (Suter & Giangreco, 2009) and special educators' ratings of self-efficacy (Giangreco, Suter, & Hurley, 2013). Findings from these two studies suggest that schools should monitor and potentially adjust their special educator school density as they reconceptualize models of service delivery that account for the full range of student diversity present in inclusion-oriented schools (Giangreco, Doyle & Suter, 2012a). A recent study of service delivery data in Italian schools (e.g., personnel utilization patterns, special educator school density) provides an example of how similar data collection efforts might be applied and considered within different national contexts (Giangreco, Doyle, & Suter, 2012b).

CONCLUSIONS AND FUTURE RESEARCH

Strides have been made in recent years, yet with the exception of the DISS project data, the majority of research on the use of TAs supporting students with disabilities in inclusive classrooms has: (a) been relatively small in scale, (b) focused on important but disjointed components, and (c) mostly repeated longstanding concerns. While continuing to ask questions about role clarification, training, supervision, and working conditions are understandable given the abundance of TAs in many schools, addressing these seemingly straightforward issues cannot be logically pursued without first establishing more foundational aspects of school-wide service delivery. For example, to ensure alignment and equitable instructional opportunities for students with disabilities and other special educational needs, appropriate training of TAs cannot be pursued until their appropriate roles are determined. Yet logically, the appropriateness of potential roles for TAs cannot be determined until after the appropriate roles of teachers and special educators have been established (Giangreco, Suter & Graf, 2011). Therefore, we need to pursue research that considers the broader school-wide context and these types of interdependent and sequenced aspects of practice.

We encourage future intervention research to better situate itself within larger school-wide contexts. By this we mean researchers should report contextual data, beyond the specific subcomponent they are studying, to include the school-wide service delivery parameters under which interventions were delivered (e.g., type of school, class size, school enrollment, budgetary information, special educator caseload size and grade range served, special educator school density, ratio of TAs to special educators) and potentially data about qualitative features (e.g., school culture, leadership practices). These types of data, which are typically not reported in most studies, provide essential information to allow for replication or individualization and may allow for future meta-analyses or at least thoughtful comparison of study differences and similarities.

Maybe because schools often approach TA issues from a reactive posture (e.g., prompted by the presence of

a student considered challenging on some dimension), as a field we keep asking the wrong questions, those that presuppose the solution to meeting the needs of students with disabilities in inclusive classrooms is somehow primarily or inextricably linked to TAs (Giangreco, Doyle & Suter, 2012a). As long as we restrict our practice and research questions to this narrow presupposition, we will dramatically limit the potential solutions we consider. Ultimately, we need to pair the available conceptualizations and component research about TAs in inclusive schools with other inclusive schools research (e.g., curriculum, instruction, service delivery, assistive technology) to proactively develop inclusive school-wide models of service delivery. Such models likely will include valued roles for TAs, but those roles should not drive the development of those models. Rather, new models should proactively be built with the intention of creating collaborative and sustainable working conditions among the adults and effective learning conditions for students that account for the full range of diversity present in contemporary inclusion-oriented schools – this will require close attention to internal congruence among the many philosophical and practical elements present is such complex systems.

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41

Assistive Technology to Provide Access to the Curriculum and Increase Independence

Amy G. Dell and Deborah A. Newton

Over the past 25 years, students with disabilities who have been provided with appropriate applications of assistive technology have benefitted significantly. Assistive technology has been shown to provide access to the curriculum and to essential educational activities that take place daily in almost every classroom such as reading, writing, and testing. Providing access to these learning experiences is an essential component of successful inclusion of students with disabilities in their neighborhood schools (Villa & Thousand, 2000). Assistive technology has enabled many students with disabilities to demonstrate their understanding of academic subjects even if they cannot write legibly or speak intelligibly (Male, 2003). It has made textbooks understandable to students who are poor readers (Rose & Meyer, 2002). It has decreased students' reliance on teachers and other adults by increasing students' independence in completing academic tasks (Bryant, Bryant, & Rieth, 2002; National Center on Accessible Instructional Materials at CAST, 2010). And it has provided a voice for many students who cannot speak (Williams, 2006).

Definitions: The term 'assistive technology' means different things to different people, so it is important to clarify the authors' definition of it and their understanding of its relationship to similar terms. The terms 'educational technology' and 'instructional technology' are used interchangeably in the United States to describe a 'combination of the processes and tools involved in addressing educational needs and problems, with an emphasis on applying the most current tools: computers and their related technologies' (Roblyer, 2003, p. 6). The term 'information and communication technologies (ICT)' refers to 'technologies that provide access to information through telecommunications.… This includes the Internet, wireless networks, cell phones, and other communication mediums' (TechTerms.com, 2010). Much, if not all, of what is termed ICT can be classified as educational or instructional technology. The authors' use of the term educational technology throughout this chapter encompasses what others may refer to as instructional technology or ICT.

Universal Design for Learning (UDL) is

> a set of principles for curriculum development that give all individuals equal opportunities to learn. UDL provides a blueprint for creating instructional goals, methods, materials, and assessments that work for everyone–not a single, one-size-fits-all solution but rather flexible approaches that can be customized and adjusted for individual needs. (National Center on Universal Design for Learning, 2012)

Technology tools are integral to supporting the three principles of UDL – providing multiple, flexible means of representation; providing multiple, flexible means of expression; and providing multiple, flexible means of engagement. The technology tools provided for use by all students within the UDL classroom are usually considered educational technology. When the educational technology fails to provide access to the curriculum for students with special educational needs, additional technology tools that meet students' individual needs

are warranted; these individual technology solutions are considered assistive technology. Applying the principles of UDL often decreases the need for individual technology solutions for students with special needs; however, UDL does not totally eliminate the need for assistive technology. Assistive technology, whether used alone or in conjunction with educational technology, can provide students with access to the curriculum and a means of demonstrating what they know. This holds true in any classroom, both those that apply the principles of UDL and those that are based on other learning theories.

The following section summarizes the kinds of technology that have benefitted students with disabilities and some caveats about their use. It is followed by a presentation of best practices in assistive technology decision-making. The chapter concludes with a discussion of future trends and issues that will need to be addressed in the coming years.

THE BENEFITS OF ASSISTIVE TECHNOLOGY IN SPECIAL EDUCATION

Technology to support writing: Students who struggle with writing because they cannot manipulate a pencil or organize their thoughts can benefit from technology tools such as graphic organizing software during prewriting; word processing, word prediction, and speech recognition during the drafting process; text-to-speech during the reviewing and editing processes (Wanderman, 2008); and multimedia presentation applications, digital storytelling, blogs, and wikis during the publishing stage (Broun, 2009; Graham, 2008). All of these writing tools decrease students' dependence on teachers and increase their ability to write independently.

As powerful as these tools are, it is important to note that assistive technology succeeds in helping students improve their writing only if it is paired with good teaching strategies (MacArthur, 2009). Students with disabilities need to receive three-pronged training: (1) instruction on the writing process; (2) training on specific technology tools (including keyboarding); and (3) training on how to use these technology tools to enhance the writing process. Loeffler (2005) describes a helpful strategy to teach students who have learning disabilities a strategy to monitor their misspelling of words. She notes that traditional spelling tests tend to focus narrowly on memorization and do not teach students strategies to improve their spelling. As an alternative, she recommends modeling a 'spelling self-check routine' and provides her students with a spelling rubric that teaches a variety of strategies. The first task on the rubric is to identify misspelled words, and one of the acceptable strategies is to use a spell-check. This strategy is a good example of combining instruction on writing tasks with instruction on appropriate technology tools.

Technology to support reading: Assistive technology can serve as a powerful compensatory tool for students whose reading skills are below grade level. These students often do poorly in their content area classes because of weak reading skills. Although they may not be able to decode their grade-level reading assignments, they can gain access to content by using technology tools that read aloud electronic text. This is made possible by a combination of hardware (computers or mobile devices), software or apps that use text-to-speech, and the availability of books in alternate formats from online searchable libraries (such as www.bookshare.org).

The impact of applications that read aloud electronic books was demonstrated in two research studies. Hecker, Burns, Katz, Elkind and Elkind (2002) report that use of the *Kurzweil 3000* program to read

assignments in college-level English class and take tests

> allowed the students [with attention disorders] to attend better to their reading, to reduce their distractibility, to read with less stress and fatigue, and to read for longer periods of time. It helped them to read faster and thereby to complete reading assignments in less time. (p. 243)

Results from the Iowa Text Reader Study (Iowa Department of Education, 2008) revealed additional benefits: students were able to access twice as much information using a scan/read program and showed improved comprehension levels even as the reading difficulty level increased. Improvements were noted on passage comprehension measures and on factual and inferential comprehension questions: 'The results demonstrate that students can access the core materials at twice the rate, with understanding at levels of higher thinking, allowing them to work competitively in an inclusion setting' (Iowa Department of Education, 2008, p. 17).

The AIM Consortium (National Center on Accessible Instructional Materials at CAST, 2010) recommends the first 2 years of high school as the ideal time to introduce text-to-speech as a compensatory tool. They identify six characteristics of students that are linked to successful use of text-to-speech for reading: (1) at least average cognitive ability; (2) good listening comprehension skills; (3) reading and writing skills that are significantly below grade level; (4) having received special education services in the past to improve reading and writing skills; (5) at risk for dropping out of high school or not graduating in a timely manner; and (6) a past history of benefitting from human readers such as teacher aides, parents or peers.

Technology for instruction in content areas: Myriad educational applications, interactive Web-based activities, interactive whiteboards, and applications specially-designed for students with disabilities offer numerous opportunities to make the general education curriculum accessible to students with a wide range of disabilities. These tools can serve as patient tutors, providing individualized instruction and repetitive practice in an engaging and motivating manner (Wehmeyer, Smith, Palmer, & Davies, 2004). They enable students who cannot use pencil and paper effectively to demonstrate their knowledge, and they often provide teachers with ongoing data about student performance. Teachers of students with severe disabilities can create activities with customized content using special authoring applications that usually include text-to-speech to provide auditory instructions and feedback.

Hearing assistive technology: This category of assistive technology helps students who are hard of hearing participate in classroom activities. Assistive listening systems amplify specific sounds such as a teacher's voice while minimizing background noises that can be distracting such as the whirr of fans and heating systems. Deaf and hard of hearing students also benefit from common technology applications such as e-mail, text messaging, chat rooms, discussion boards, blogs, and Skype, which provide avenues of communication that do not rely on hearing or speaking.

Augmentative communication: Students who lack the ability to speak are at a serious disadvantage in school because they are unable to express ideas and opinions, participate in class discussions, demonstrate what they have learned, or engage in social situations. Augmentative communication is essential for making these students understood, for conveying clear messages to their teachers and peers, and for increasing independence and autonomy. Augmentative communication devices range from low-tech to high-tech. Low-

to mid-tech devices are often appropriate for students who have limited literacy skills, can handle only a limited number of messages, benefit from pre-recorded messages because they are not yet able to construct messages word by word, and require assistance from a communication partner (DynaVox, 2012). High-tech devices are appropriate for users who have strong language, literacy and communication skills; require access to an extensive vocabulary for use in a variety of settings and activities; need the ability to create new messages; and are likely to use their device for multiple purposes such as Internet access and text messaging.

Access to computers, augmentative communication systems, mobile devices and the Internet: It is essential that students with disabilities be able to use and benefit from technology even if their disabilities prevent them from typing on a regular keyboard, using touch technology, or seeing a standard visual display. Assistive technology for computer access exists on a continuum from low-tech to high-tech. Low-tech solutions, which are non-electronic, require only minimal training and are relatively inexpensive, include keyboard labels, pointing devices such as dowels that are held in one's fist, keyguards, and moisture guards. High-tech solutions for students who have physical disabilities include alternate keyboards, on-screen keyboards, mouse emulators, speech recognition, and eye-gaze systems. Students who are blind or visually impaired gain access to computers and the Internet through high-tech tools such as screen magnification software, screen reading software, and refreshable Braille displays. In general, high-tech solutions require extensive training and are usually costly; their benefit is that they offer flexibility and can be used for many different tasks (Dell, Newton, & Petroff, 2012).

TOOLS ALONE ARE NOT ADEQUATE

Meeting the needs of students requiring assistive technology cannot be accomplished simply by knowing about available technology solutions. The importance of providing high quality assistive technology *services* cannot be stressed enough. The QIAT Consortium (pronounced 'quiet'; an acronym for Quality Indicators for Assistive Technology), a group of assistive technology professionals and other stakeholders, has worked together to identify quality indicators that describe the characteristics of assistive technology services that are essential for service delivery. The indicators outline best practices in eight areas: (1) Consideration of Assistive Technology Needs ('Consideration' is a term specific to IDEA, the US law governing special education); (2) Assessment of Assistive Technology Needs; (3) Including Assistive Technology in the IEP; (4) Assistive Technology Implementation; (5) Evaluation of the Effectiveness of Assistive Technology; (6) Assistive Technology Transition; (7) Administrative Support of Assistive Technology Services; and (8) Professional Development and Training in Assistive Technology (QIAT Consortium, 2005).

   Discussion of each of the areas and each of the indicators within a specific area is beyond the scope of this chapter. The following section discusses a decision-making framework that is consistent with the QIAT guidelines and provides general information concerning essential assistive technology services.

Assistive technology decision-making: Given the wide range of technology tools available, how do educators decide which tools are appropriate for a particular student? The SETT Framework, developed by Joy Zabala (2005), is one model that incorporates the QIAT Indicators. This framework emphasizes that the assistive technology selection process must begin by focusing first on the Student. What is the age and grade

level of the student? What are the student's strengths? What are the student's interests? In which skill areas is the student weak? After this kind of information has been gathered, educators need to consider the nature of the Environments in which the student spends time. What is the physical arrangement? Are there special concerns? What equipment and materials are currently available in the environment? What is the instructional schedule? What supports are available to the student? What resources are available to the people supporting the student?

After the 'S' and 'E' of the SETT Framework have been addressed, the next factor to consider is the specific Tasks the student must perform to be successful in those environments. What activities take place in the environments that support the student's curriculum, and what are the critical elements of these activities? For example, in a typical fourth-grade classroom, students need to read their textbooks; they need to complete worksheets and write short compositions; they need to participate in hands-on science activities; and they need to communicate with other students when working on group projects.

Only after the Student, the Environments, and the Tasks have been addressed, can specific technology Tools be considered. How might technology support the student's active participation in those activities? What no-tech, low-tech, mid-tech and/or high-tech options should be considered for this student in each environment? Which specific features of technology tools does this student need? What strategies might be used to improve the student's performance?

Selection of an assistive technology solution that is appropriate for a particular student is enhanced by using a team approach. The team must include individuals knowledgeable about a broad range of assistive technology as well as members who can address issues related to factors such as seating and positioning for students with physical disabilities, vocabulary selection for students needing alternative and augmentative communication, and curriculum access and/or adaptation. The student and/or parents must also be considered members of the team and allowed to express their opinions and preferences (Wahl & Haugen, 2005). Assistive technology is more likely to be utilized if the student and family has had input into decision-making.

Students must have an opportunity to try out any specific assistive technology that is under consideration in order to determine whether it will effectively meet their needs. When it is immediately obvious that a particular assistive technology is effective the trial use requires little time. If the technology is complex and/or requires extensive training, the trial use may continue for 6 to 8 weeks, or longer if necessary (Chambers, 1997). Data must be collected during the trial use, and recommendations for particular assistive technology solutions must be supported by the collected data (QIAT Consortium, 2005).

It is important to note that decision-making, or assessment, is not a one-time event. After training has been provided for the student and those who will support the student's use of assistive technology, ongoing monitoring of the effectiveness of the assistive technology is necessary. This monitoring will ascertain whether or not the benefits anticipated from using the assistive technology solutions are being realized. If not, adjustments need to be made. Ongoing monitoring also alerts assistive technology service providers when adjustments are needed due to students' changing needs and goals.

A second caveat is that the decision-making process does not focus on hardware alone. It must include consideration and selection of software, applications and/or apps that match the student's current skills and goals. The selection process for augmentative communication systems must also consider two specialized components: 1) a symbol system; and 2) vocabulary. Symbol systems range from concrete systems such as

tactile symbols and photographs of objects and real people to more abstract systems such as line drawings, to the most abstract, alphabets and words. The goal in selecting a symbol system is to provide the user with the ability to generate messages as quickly and with as little effort as possible (Dell et al., 2012). The arrangement of the symbols must also receive careful consideration. Vocabulary must be carefully selected to meet a student's specific needs, interests, age and cultural group. This can be especially challenging since the reason for AAC in the first place is that a student cannot express his/her preferences clearly. However, vocabulary selection is a major contributor to the success – or lack of success – of an AAC system (Balandin & Iacono, 1998).

Similarly, when selecting applications or apps for instructional purposes it is the curriculum and the student's needs, strengths, weaknesses and goals that need to be at the forefront of this discussion. With hundreds of thousands of apps available, many labeled 'educational', special educators need to have a set of clear criteria to apply when reviewing and selecting apps. The Evaluation Rubric for Apps (Walker, 2011) identies six critical features of apps that need to be considered: 1) Curriculum connections, i.e., how strongly the app correlates to a targeted skill or concept from a school's curriculum; 2) Authenticity, which is the extent to which students are engaged in genuine learning as opposed to simply completing drill and practice activities; 3) Quality of feedback, i.e., does the app provide branching based on students' responses and/or redirect students toward the correct response? 4) Differentiation, i.e., the ability to make adjustments to the app such as setting the level of difficulty, targeting specific skills, or providing spoken instructions; 5) User-friendliness, i.e., the level of support needed for a child to be able to launch and use an app independently; and 6) Motivation, i.e., how engaged students are in the app's activities.

Assistive technology and transition: Careful thought and planning are necessary when students using assistive technology transition from one grade to another, from one school to another, from one district to another, or from school to work or an adult support agency. Personnel in the receiving environment must be provided with information pertaining to the assistive technology tools, types and levels of support required, and tasks for which the technology is used. They must be trained to support students' use of the technology before the students arrive and need to use the assistive technology. Funding issues need to be addressed so that assistive technology transfer, purchase, maintenance, and repairs do not become impediments. Information transfer, personnel training, timely delivery of assistive technology, and addressing funding concerns will facilitate students' continued progress when they transition to new environments.

FUTURE TRENDS AND IMPLICATIONS FOR SPECIAL EDUCATION

Although predicting future trends in computer technology is often called a fool's errand (e.g., Goldman, 2011), a few recent developments are likely to have a significant impact on special education: 1) widespread implementation of 'cloud computing'; 2) the proliferation of mobile devices; and 3) the escalating use of touch and gesture interfaces. Cloud computing, which is 'the use of the Internet to run applications or store data' (Sanders, 2011), offers several benefits to schools, teachers and students. It eliminates the problem of installing software on school computers and networks, and it enables access to both educational applications and students' documents from students' homes as well as from any school computer. Therefore, for example, a student with learning disabilities who needs to use text-to-speech to edit his writing assignments can have

access to the text-to-speech application both in the classroom and from his home computer where he typically writes his papers. A third benefit of cloud computing is that applications can be upgraded by developers without requiring schools to install new versions and/or re-image their computers. This improvement in technology is likely to make it easier for schools to provide specialized applications that support the learning of students with disabilities. (The drawback to cloud computing is that if the network is down, no one can get any work done.)

The popularity of mobile tablet devices (e.g., iPad) is likely to grow even more in the coming years. ABI Research (2012) predicts that 'total mobile app revenues … will soar over the next five years, growing from $8.5 billion in 2011 to $46 billion in 2016'. The proliferation of mobile devices and the increasing use of touch and gesture interfaces are closely related. Cloud computing has made the widespread adoption of mobile devices possible, and the touch and gesture interfaces of these mobile tablets have made them extremely easy to use. With training demands significantly reduced, teachers may be more eager to embrace their use and students with intellectual disabilities can interact with them more easily than with computers. Couple this with their relatively low cost, their convenient portability, and an apparent 'cool factor', and it is not surprising that mobile tablet devices are capturing the imagination of school district and special education personnel.

The concern, however, is how mobile devices will be used and how they will actually contribute to the education of students with disabilities (Bowser, 2011). One area in which they have shown much promise is the provision of accessible instructional materials. Bookshare.org and Learning Ally (formerly Recording for the Blind and Dyslexic) both offer apps for gaining access to their libraries of electronic books. For a nominal fee, Bookshare users (i.e., registered members who have presented documentation of a print disability), for example, can download its *Read2Go* app on an iPad and have any of the thousands of e-books read aloud in a high quality voice with synchronized highlighting of text. All without being tethered to a computer, and with the flexibility to read wherever one wants.

A second area in special education in which mobile devices show promise is augmentative and alternative communication. Providing a voice for students who cannot speak has been one of the most life-changing uses of assistive technology (Williams, 2006). However, because the market for this technology has been relatively small, its cost has been prohibitive for many people with disabilities. Mobile devices and their myriad apps are changing this state of affairs. Several companies have developed inexpensive apps for creating and using talking communication boards on various mobile tablet devices. In addition, inexpensive accessories, such as stands for holding devices vertically, lightweight but sturdy cases, and external speakers, are being marketed that make mobile device use more practical for students with disabilities who need augmentative communication.

A fourth trend in commercial technology development that must be mentioned is the improved accuracy and affordability of speech recognition. With these recent refinements, will speech recognition finally take its place in special education as a practical solution for students with disabilities? Because of the nature of schools and classroom environments, the authors do not envision this happening. Speech recognition requires a quiet environment, and for students to be successful using it, they would need to be isolated from their peers. The result would be the exact opposite of *including* students with disabilities.

FUTURE TRENDS: BEST PRACTICES

Regardless of whatever new inventions become available and affordable, the issues of appropriate decision-making and effective implementation will remain of paramount importance. The inevitable hype accompanying the latest gadget must not be allowed to overshadow good assistive technology practices, as articulated by the QIAT Consortium (2005). There has never been just one piece of assistive technology that meets the needs of all students with disabilities. Bowser (2011) reminds us that decisions need to be based on the same reasoning with which we consider any assistive technology – the technology must offer the features a student needs to be able to accomplish identified tasks, and data must support its effectiveness.

Mobile devices offer portability, short training curves, and possibly affordability. They also require a dry environment, careful handling, the ability to focus, and at this time, good finger control. (Adaptive switches that work with mobile devices and apps that use single-switch scanning are coming on the market at the time of this writing but they are not inexpensive.) A student with cerebral palsy who drools may not be able to keep a mobile device touch screen dry. A student who has a tendency to throw things is not a good candidate unless the device can be securely attached to the desk. A student with fine motor problems may not be able to hold the device and activate it at the same time and may need the device to be placed vertically in a sturdy stand.

In addition to following best practice when selecting future assistive technology tools, special educators will need to continue to grapple with the complicated issue of assistive technology implementation. The gap between recognized technology solutions and getting those solutions into the hands of students with disabilities and their teachers has been around since the release of the Apple IIe computer, and it is not likely to be bridged any time soon. For a variety of reasons, even students who have been recommended for assistive technology services often end up not receiving them because the details of implementation are not addressed.

Successful use of assistive technology in schools depends on detailed implementation planning. Assistive technology implementation plans must be developed collaboratively and must incorporate the Quality Indicators for Assistive Technology (QIAT) Implementation (QIAT Consortium, 2005). The plan must provide a breakdown of the specific tasks that will need to be completed, and must identify specific individuals who will be responsible for each element of the plan (Bausch & Ault, 2008). For example, who will purchase the recommended technology tools? Who will install the recommended software or apps? Who will customize the software or apps so they meet the specific needs of the student? Who will need to be trained on the technology, and who will conduct the training? If electronic books need to be downloaded, who will be responsible for downloading the books? How will the files get to the student? Even seemingly insignificant tasks like purchasing batteries when they need to be replaced or connecting an AC adapter to charge a portable device need to be assigned. If these kinds of details are not addressed ahead of time, students are not likely to be able to use the technology tools as they were intended.

Closely related to an assistive technology implementation plan is planning for curriculum integration. Students will realize the full potential of assistive technology only if it is systematically integrated into their curriculum so that they are able to be active participants in the learning activities that occur within their classrooms (QIAT Leadership Team, 2011).

[Assistive technology] is not a separate, add-on item that can be used only in isolated practice. Rather, it is a tool that allows a student to overcome or bypass some aspect of a disability to better learn new skills or more effectively demonstrate existing knowledge. It becomes a

useful and effective tool when a student uses it regularly to complete meaningful tasks during typical activities. (QIAT Leadership Team, 2011, p. 2)

Students who use augmentative communication, for example, may need specialized vocabulary added to their devices so they can participate in class discussions about a particular work of literature, an historical era, or a science lab. Students with physical disabilities who use alternate means of access may need preprogrammed sentences or specialized vocabulary added to their systems so that they can complete writing assignments on class topics. For students with learning disabilities who need test questions read aloud to them so they can demonstrate their knowledge, the classroom must provide a computer on which to take tests, headphones to listen to the text-to-speech, and either a printer for printing out a hard copy of the completed test or Internet access to submit the test.

In addition to lack of implementation planning and funding issues, the following obstacles need to be addressed in the coming years: 1) bridging the 'digital divide'; 2) lack of awareness among special education professionals of the benefits of assistive technology; 3) lack of skills among special education professionals to implement assistive technology plans; 4) conflicts with school information technology policies (Newton & Dell, 2009); and 5) lack of administrative support (QIAT Consortium, 2005).

Digital divide: Although a discussion of the digital divide is beyond the scope of this chapter, its existence and its relevance to students with disabilities must be acknowledged as a major obstacle to assistive technology implementation. The term was first coined to highlight inequities between students' access to computers – that stemmed from economic conditions and/or gender biases (Tapscott, 2000). As computers became more commonplace in the West, the term digital divide was used to refer to the gap between those who had access to the Internet and those who did not. In recent years, the meaning has largely shifted from the issue of simply *having* Internet access to the *type* of Internet access (Hertz, 2011), e.g., dial-up, broadband, high-speed broadband, and mobile devices. With the advent of cloud computing, speed of access has become increasingly important. Special educators need to commit themselves to eliminating the inequities between 'information haves and have-nots, knowers and know-nots, doers and do-nots' (Tapscott, 2000, p. 127).

In the United States, the digital divide has been especially problematic for students with disabilities. Funding for assistive technology has been inconsistent across states and school districts and has contributed to inequities even in some affluent areas. Students with disabilities who live in countries that do not have a strong technology infrastructure are at a tremendous disadvantage and are not able to benefit from the solutions provided by assistive technology. Unless students with disabilities are provided with broadband or high-speed broadband access to the Internet and appropriate assistive technology tools, they will have limited access to the latest high-tech assistive technologies and will not have equitable access to information.

Need for professional development: Regardless of the technology tool being adopted, providing effective training for teachers and other school personnel will continue to be a major obstacle to successful assistive technology use in schools (Dell et al., 2012). It does not matter if a school purchases the newest, fastest, most powerful technology on the market. If its teachers have not been trained to the level of being *comfortable* integrating the technology into their curriculum, it will not be used. Effective technology training requires time, hands-on experiences, and an in-depth focus on using the technology to teach and learn

(Bausch & Hasselbring, 2005). Savvy educational administrators know that for every dollar invested in hardware and software, an equal amount needs to be allocated for training.

One inexpensive solution to educators' lack of knowledge and skills about assistive technology is to utilize the wealth of professional development resources that are available on the Internet. Many assistive technology producers provide informative training videos and downloadable documents on their websites. Organizations around the world provide detailed resources for professional development. In addition to resources available from the QIAT Consortium (http://www.QIAT.org), readers will find the resources from Special Education Technology-British Columbia (http://www.setbc.org) and CALL Scotland (http://callcentre.education.ed.ac.uk/Home) invaluable. The resources available at these websites provide comprehensive information on assistive technology; access to additional resources is as easy as following the links these websites provide.

Need to resolve conflicts with school information technology policies: Special education professionals often lament the fact that policies established to protect information technology (IT) systems can become barriers to assistive technology implementation (Newton, 2002). For example, access to operating system resources such as control panels are often a 'privilege' reserved for IT personnel. As a result, teachers are unable to implement simple modifications, such as activating StickyKeys or MouseKeys, and cannot install specialized applications or assistive devices. Requests for software or hardware installation are sometimes denied because IT policies dictate that every computer in a school or district be configured the same way; therefore, if a program is not on *every* computer, it cannot be on *any* computer (Newton, 2002). The advent of cloud computing may resolve some of these conflicts, but problems will continue if downloading from the Internet remains restricted to IT staff. For assistive technology implementation to be successful, assistive technology and IT professionals must communicate and collaborate with each other to avoid such conflicts.

Need for administrative support of assistive technology: Teachers and IT personnel are not the only professionals who contribute to the implementation of assistive technology. For assistive technology implementation to be successful, principals and other school leaders must play an active role. This does not mean that school leaders need to be assistive technology experts, but they are in a position to empower their staff to adopt best practices if they adhere to the QIAT Indicators for Administrative Support of Assistive Technology, which delineate the responsibilities of school leaders. They must lead efforts to: 1) develop and disseminate 'written procedural guidelines that ensure equitable access to assistive technology devices and services'; 2) include assistive technology responsibilities in all job descriptions of special educators; 3) hire personnel who 'have the competencies needed to support quality assistive technology services'; 4) include assistive technology items and training in the technology planning and budgeting process; 5) provide access to ongoing professional development opportunities about assistive technology; and 6) use a systematic process to evaluate all components of the school district's assistive technology program.

In conclusion, for assistive technology decision-making and implementation to be effective in special education, *people* and what they *do* will always be more important than any new gadget or particular piece of technology.

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Mobile Learning and Games in Special Education

Penny Standen and David Brown

INTRODUCTION

Information technology is now a ubiquitous presence in all educational settings as well as places in which people work. While most mainstream schools now rely heavily on this technology to support learning, special education was often at the forefront of its adoption even acting as exemplars for mainstream education (Lilley, 2004). Educational virtual environments had been developed in special schools and adult training centres when virtual reality was still a novel technology in education (Standen & Brown, 2004, 2005, 2006). Now, no school or educational setting would be imagined without information technology and there have been some exciting developments since those early pioneering days. In this chapter, we intend to cover three of those which we think are particularly pertinent for learners with special needs: serious games, mobile computing and the role of users in the development of the technology.

THE ROLE OF GAMES IN EDUCATION AND TRAINING

A recent development in educational software is to recognize the value of learning through playing computer or video games. For a recent review, see Ulicsak and Wright (2010). The term 'serious game' has been coined to refer to a game designed for a primary purpose other than pure entertainment. While the purpose of the game could be serious such as learning a complex concept or a skill, the qualities associated with games are intended to enhance this learning. Although games do not have to be electronic, the majority of the material available on serious games refers to computer or video games. Earlier work on computer games tended to focus on the negative aspects (Elgi & Meyers, 1984) an observation echoed by Williamson (2009): 'Games have become a major recreational activity, sometimes considered – especially in the tabloid and conservative press – to be culturally degenerate' (p. 9). Williamson went on to say, 'yet they have also become increasingly sophisticated and celebrated as a cultural form; they have shaken up the world of entertainment, and they have entered into educational debates and practices' (p. 9). Play and games had been recognized as having an important role in early learning, but Pivec (2007) makes the point that, as education becomes more formal, games tend to be seen as just an 'unserious activity' (p. 387). More recently, the positive aspects of games in formal education have been explored whether this involves using commercially-produced games or bespoke educational games that are designed to be as engaging as commercial, entertainment games but intended to have an educational outcome.

For learners with special needs, whatever their age, the engaging nature of computer games is what makes them an ideal addition to the learning toolkit. Pivec (2007) highlights the ability of games to engage the learner voluntarily in sufficient repetitions of the activities to ensure learning takes place (Pivec, 2007). This is what Garris, Ahlers and Driskell (2002) termed persistent reengagement, where the player returns to the task

unprompted. The motivational power of computer game playing was demonstrated in a study by Standen, Brown, Anderton and Battersby (2006) to design a new navigational interface for virtual environments for people with intellectual disabilities. The users in this study needed to use the device regularly over a period of 18 months in order to complete a baseline evaluation and to test each version of the prototype. This was easily achieved by allowing them to play computer games specifically designed for the study.

A second characteristic to be exploited in serious games, is the immediate feedback they can provide, so that an activity is easily linked with a learning outcome, in Pivec's (2007) words: 'the debriefing process between the game cycle and the achievement of the learning outcomes' (p. 388). Finally, games can be structured with different levels of challenge which makes them flexible enough to appeal to users with a wide range of ability or skill and to learners from their first attempt through to increasing levels of familiarity. They can thus be used to provide scaffolding for new learners by, for example, controlling those elements of the task that are initially beyond the beginner's capability. As the beginner becomes more familiar with elements of the task and develops the ability to carry it out independently, the scaffolding can be removed. The secret is to ensure a balance between success and challenge, and the different levels that can be built into games provide this. These characteristics of games were the reasons Sik Lányi, Brown, Standen, Lewis and Butkute (2010) designed computer games to teach employment skills to young people with intellectual disabilities. Similarly, Savidis, Grammenos and Stephanidis (2007) designed two computer games for people with intellectual disabilities in Crete to help their users acquire employment skills. They hoped that by supplementing these with two accessible and highly configurable remakes of the classic Space Invaders and the Pong arcade games, they would not only motivate the learners, but improve their basic kinaesthetic skills, orientation capabilities, short term strategic thinking, decision-making and self esteem. Exposing learners to the games as well as the two training applications was intended to have an amplifying effect and support faster learning cycles.

There is an increasing amount of evidence in the wider population for positive effects of computer game playing on cognitive and perceptual skills. Green and Bavelier (2003) found that playing action video games can give a person the ability to monitor more objects in their visual field and do so faster than a person who does not play such games. In a later study, Green and Bavelier (2007) found a causative relationship between action video game playing and increased spatial resolution of visual processing. In order to explore whether game playing might have benefits for people with intellectual disabilities, Standen, Karsandas, Anderton, Battersby and Brown (2009) assessed the effect of playing a switch-controlled computer game with a time limit for responses on choice reaction time. They found a significant decrease in choice reaction time in the intervention group compared to the control group who, for the same amount of time, played a game with no time limit. In a later study, Standen, Rees and Brown (2009) investigated whether computer games may give people with intellectual disabilities the opportunity to practice the underlying components of decision-making, a skill in which they can experience difficulties. After repeated sessions playing a Tetris-like game, the intervention group showed a significant improvement in two paper-based tests of decision-making. The decrease observed in the control group failed to reach significance. Using a version of the same game, this time requiring players to focus on fractions and percentages Brown, Ley, Evett and Standen (2011) observed an improvement in the understanding of fractions in school aged students with intellectual disabilities after several sessions playing the game when compared to a control group. There is also encouraging evidence that memory skills of young people with intellectual disabilities can be enhanced through game playing (Brown,

Mclver, Standen, & Dixon, 2008; Van der Molen, Van Luit, Van der Molen, Klugkist, & Jongmans, 2010).

In addition to teaching basic skills and improving cognitive and perceptual abilities, games have been successfully employed to enhance social interaction in young people with autism. The Collaborative Puzzle Game was initially used by Battocchi et al. (2010) to study social interactions among boys with Autistic Spectrum Disorder (ASD) and those with typical development, as well as testing the system as a rehabilitative tool. This tabletop game promotes collaboration since, in order to be moved, digital puzzle pieces must be touched and dragged simultaneously by the two players. Actions on digital objects can be performed only through the simultaneous touch of two or more users. For children with ASD, the game was effective in triggering behaviours associated with co-ordi-nation of the task and negotiation.

The exploration of the potential of serious games is still in its infancy. Thus, the challenge for educators who might wish their students to benefit from these developments is that the availability of suitable games for their students is severely limited. The work reviewed above was largely carried out by researchers whose games were produced in house and, if distributed, lack any form of continuing support or updating. In the absence of any commercially-available games that have been shown to be beneficial for children with special needs it is worth checking websites such as http://www.futurelab.org.uk, http://www.do2learn.com and http://www.brighthubeducation.com that either advise on recent developments and evaluations, or provide free resources, http://www.bbc.co.uk/cbeebies. The games used in our research projects are available for free download from http://isrg.org.uk/projects/

MOBILE COMPUTING/LEARNING

Much of the earlier employment of information technology in special education depended on desktop computers. While these still have a huge role in education and entertainment especially for the experience of three dimensional virtual environments, advances in technology have meant that the inevitable progression in miniaturization has allowed individuals to carry their computing power around with them. This has resulted in the use of laptops, notebooks and personal digital assistants (PDAs). For young people especially, the must have device is a smart-phone which has advanced computing ability and connectivity. It can be used as a portable media player and camera, may have a high-resolution touchscreen, web browser, GPS navigation, Wi-Fi and mobile broadband access. Learners with special needs recognize the significance of this particular technology and the status it carries with their peers. While handheld devices can pose serious challenges for some learners with disabilities especially if they have poor vision or dexterity, these devices are already being used in the classroom.

One of the first uses of mobile devices was in prompting individuals to complete everyday tasks, particularly for individuals with autism (e.g., Gentry, Wallace, Kvarfordt, & Lynch, 2010). However, this approach does not always involve hands on use by the learner themselves. As part of a programme to improve employability, Burke, Andersen, Bowen, Howard and Allen (2010) adapted a standard iPhone application to provide performance cues to teach fire safety to six young adults on the Autism Spectrum. The cues were displayed on an iPod which assistants controlled using an iPhone. Although a small study, the system appeared to be effective and received high satisfaction ratings from both learners and their parents.

Mobile devices also lend themselves to supporting communication. Rodríguez-Fórtiz et al. (2009)

developed an augmentative and alternative communication application for mobile devices to enable students with severe communication disorders to participate in instructional activities alongside their non-disabled peers. Van der Meer and colleagues (2011) have been using the iPod as a communication device for individuals with developmental disabilities who lack speech. They successfully taught two of their three participants to request snacks and toys by selecting graphic symbols on an iPod touch.

An exciting development for mobile devices has been to support learning in any environment the learner chooses. While desktop computing limited the delivery of material to a particular indoor location, with a mobile device, learning can be undertaken precisely in the context in which it is to be used with a close relationship between the learning experience and the situation in which the learning need arises (Naismith, Lonsdale, Vavoula, & Sharples, 2004). Ensuring that learning takes place in a context similar to that in which it is required is particularly important for a target audience described as 'concrete thinkers' whose performance is characterized as rigid, context dependent or as blind rule following and for whom generalization of learnt skills from one setting to another is unreliable (Gow, Balla, & Butterfield, 1990). Moving the environment of learning to a real world and real time context might also help to compensate for the poor memory skills often associated with this target audience (Burack & Zigler, 1990). Recognizing the social dimension of learning, students may perform the exercises cooperatively with peers who may be in diverse physical locations and classroom teaching can be complemented through facilitating the participation of families. This was the intention behind the development of the virtual learning environment described by Fernández López, Rodríguez Fórtiz and Noguera (2009), which is further discussed below. These researchers planned to facilitate the participation of families and professionals during the learning process by enabling their environment to run on both the iPod touch and iPhone device.

Schelhowe and Zare (2009) created a mobile application for people with mild to severe intellectual disabilities which could be personalized to an individual's profile by downloading learning materials from a server. This approach was also taken by Fernández López et al. (2009) who created a platform for learning materials for display on the iPod touch, iPhone and iPad for users with special needs. They describe three learning activities: Association, Puzzle and Exploration, which could be personalized and played individually or cooperatively, but learners would only interact with those activities that the teachers decided should be presented to them. No evaluation was reported on either of these two systems. However Nordness, Haverkost and Volberding (2011) report some preliminary results from a maths application for a handheld computing device. They found an improvement in the subtraction skills of three individual second grade students with learning and behavioural disabilities.

An added feature of smartphones is their ability to present information to the user based on their geographical position: location-based services. This can be used to provide travel training for users with intellectual disabilities, to prompt them to execute location dependent tasks and to provide them with the appropriate information for carrying out the tasks, for example buying a sandwich at a shop. One of the core skills required for leading an independent life, social inclusion and accessing the world of work is the gaining of independent travel skills and having the confidence to learn and travel new routes. Of the unmet needs frequently reported by young disabled people and their families is practical support, advice and information on mobility (Clark & Hirst, 1989).

Brown, McHugh and colleagues (2010) developed an accessible location-based device (RouteMate) based

on the Android Operating System from Google to help people with intellectual disabilities plan and rehearse new routes to work, leisure and learning opportunities and then to carry these out independently in a safe manner. Mobile route guidance systems are in common use by vehicle drivers and have formed the basis of systems used in research projects to aid route following (e.g., Lemoncello, Sohlberg, & Fickas, 2010). However, although such systems obviously reduce the mental load for drivers, their use suppresses the development of cognitive or mental maps. These are important for users with disabilities as conventional route guidance does not help when the traveller gets lost and wants to get back on track or just wants to get back to the starting point (Lindström, 2007). Thus, RouteMate was designed to promote route learning rather than provide route guidance and thus facilitate the development of cognitive maps.

Because of its ability to locate the position of the user, the device can track the user's performance on previously trained routes and can indicate significant divergence from the planned route in terms of time or distance. This has two advantages. First of all, this can trigger an alarm to the user and then offer advice for correction. However, it can also automatically text the user's GPS position with a street name to a nominated other's mobile device, or call a nominated helper to help them conversationally to navigate to safety.

Parents and caregivers of young people with intellectual disabilities, conscious of the widening gap between their child's capabilities and those of their non-disabled peers, feel they need to protect their child for longer and do not feel able to allow them the degree of independence allowed to their other children. For them, the possibility of receiving an alarm allows them the option of taking remedial action perhaps by giving advice over the phone to navigate to safety. Users with disabilities often stress the importance of having some way to locate themselves when they can no longer orientate themselves during a journey (Lindström, 2007). It was hoped that this facility might lead parents and carers to feel that they could allow the person in their care a greater degree of independence.

RouteMate (http://recall-project.eu/) was developed in response to feedback from carers and young people with intellectual disabilities who took part in an earlier European-funded project (http://goet-project.eu/) aimed at helping young people with intellectual disabilities live more independently. There was much enthusiasm for the idea of developing such a device and in a subsequent project a prototype device was distributed to centres in four different European countries, Bulgaria, Greece, Romania and the UK, for evaluation prior to further development. The centres included schools and training establishments specifically for those with disabilities. As part of this evaluation, researchers collected information on the attitudes of the young people with intellectual disabilities, their parents, trainers and therapists towards developing their ability to travel independently. The majority of young people with disabilities were very keen to be able to travel independently and welcomed the assistance that would be offered by a fully functioning system such as RouteMate.

However, trainers and carers, although acknowledging that travel training was a prerequisite for greater social inclusion, were a little less enthusiastic regarding independent travel. This difference of opinion is not surprising as what adolescents think is appropriate usually differs from what older adults like, and while, for the young person with disabilities, RouteMate might offer a chance of independence, family members will be more concerned with practicality (Parette & Scherer, 2004). One of the major reasons they gave was the physical environment: the limited accessibility of buildings and public places; pavements being nonexistent, obstructed by parked vehicles or impassable due to lack of repair and the difficulty of crossing the road in

urban areas. While the device would support finding one's way, the lack of road safety awareness would put them in danger. Interestingly, the device itself also presented risks. Carers feared that the phone on which RouteMate was running would be attractive to muggers. Finally, young people were thought to be more exposed to bullying and abuse if they were travelling independently. Earlier studies had shown considerable enthusiasm for support for independent travel. Why was this reluctance being voiced?

A consideration of this illustrates the issues that need to be taken into account with any development aimed to improve independence of young people with intellectual disabilities. The apparent contradiction voiced by parents and carers can be understood in terms of the view of risk described by Alaszewski and Alaszewski (2002). These authors write that the

> precise definition of risk is contested, with risk being equated at one extreme with danger and hazard, and therefore, being seen as something that should be avoided, while at the other, it is linked to personal development as a positive liberating experience. (p. 56)

Parents and carers are faced on the one hand with current policy to facilitate increasing independence and the emphasis on young people's rights to autonomy and self-determination. On the other hand, they are responsible for keeping them safe and they know the risks: travel risks were raised by parents in the study by Almack, Clegg and Murphy (2009), and people with intellectual disabilities experience a higher risk of serious pedestrian accidents, falls, fire and drowning (Strauss, Shavelle, Anderson, & Baumeister, 1998). In the words of Almack et al. (2009), the challenge for these carers is having to 'navigate complex boundaries between being seen to be over-protective and allowing these young people the autonomy to negotiate risk' (p. 286).

Although this note of caution has been introduced, there is already sufficient work to recommend the use of mobile devices. Apps for both iPhone and Android phones are increasingly available and many are free. Apps are appearing constantly and some sites actually recommend their apps for children with special needs (e.g., http://www.childrenwithspecialneeds.com/index.php/special-needs-apps.html and http://www.oneplaceforspecialneeds.com/ main/library_special_needs_apps.html).

USER INVOLVEMENT IN DESIGN

The fears expressed by parents and carers in the development of RouteMate show just how important it is to take user's and their gatekeepers' views into account in the design process. Lack of consideration of user opinion in selection has been discovered to be an important factor in the abandonment of assistive devices (Kintsch & De Paula, 2002), an outcome that can be an excessive financial cost for both services and families. Consumers also proffer the stigma associated with assistive devices as a reason for abandoning them (Parette & Scherer, 2004). A device such as a cane or wheelchair can be a visible sign that the person is vulnerable and makes them a target for theft or bullying. For some, the use of the device emphasizes the difference between them and others, and the absence of abilities. If they then decline to use the device their participation in society is limited not just by physical but also social barriers. As well as the visibility resulting from use of assistive technology in public settings, Parette and Scherer (2004) identified other issues in addition to stigma which could explain abandonment: family expectations of the technology, and perceptions that children will not attain important developmental skills if they become reliant on devices.

In answer to some of these issues there has been a movement towards involving users in the design of

assistive technology borrowing from paradigms such as 'Design for all' (Horton, 2006), 'Universal Design for Learning' (Rose & Strangman, 2007) and 'Equitable Use' (Scott, McGuire & Shaw, 2001). At its best, this involvement is actually driven by the users themselves as exemplified by organizations such as Devices for Dignity (www.devicesfordignity.org.uk) and Enabled by Design (http://enabledbydesign.org/). Buhler (2001) describes the successful involvement of users with disabilities in European R&D projects and notes the advantages of such an approach in achieving the best end product.

The involvement of users with intellectual disabilities lags behind. However, the imperative to involve them in the design of assistive products is just as strong. Aware of the advantages of user involvement, researchers have endeavoured to involve users with intellectual disabilities in the design of input devices (Brown, Battersby, Standen, & Anderton, 2005; Standen & Brown, 2006) and software (Brown, Battersby, & Shopland, 2005; Savidis et al., 2007; Brown, Standen et al., 2010). This has been successfully achieved while still adhering to established guidelines on user-centred design such as INUSE (Daly-Jones, Bevan, & Thomas, 1999), USERfit (Poulson & Waddell, 2001) and RESPECT (Maguire, Kirakowski, & Vereker, 1998; see also https://dspace.lboro.ac.uk/dspace-jspui/handle/2134/2651).

An important first step as proposed by Buhler (2001) is to recognize that users in this context are not just the teachers, parents, carers, therapists or potential employers who are usually the users whose opinions are sought, but the people with intellectual disabilities themselves, and efforts need to be made to ensure their involvement is first hand with involvement by proxy kept to a minimum. Most of the processes described by Maguire et al. (1998) for evaluation of prototypes can be adapted satisfactorily by using computer generated virtual experiences as well as direct observation. So, a consolidated set of design requirements can be derived through observation of use of currently available devices or software rather than through seeking verbal feedback. Involvement in producing concept designs and prototypes can be achieved through storyboarding with an emphasis on pictorial representation and the use of multimedia and computer assisted design software to give users an approximation of what a prototype may look like. These approaches reduce the reliance on language and memory load.

CONCLUSION

It is clear from reviewing current literature that special needs education is keeping abreast of new technological developments but developers need to be braver about involving users in the design of applications. While the literature has been reviewed in three separate strands, some initiatives reviewed combine both games and mobile learning. In fact, the initiatives by Brown, McHugh et al. (2010) and Fernández López et al. (2009) both used a games-based approach on a mobile device and were designed in conjunction with users with the potential for personalization. Bearing in mind the problems of abandonment of devices, users and their carers have strong views on the adoption of devices and hopefully their views will be taken into account in future. There are enough examples now in the literature to enable this to happen. Designers wishing to see their developments adopted might also need to think about providing follow-up support, something commercial organizations have had to do but independent researchers like the authors of studies reviewed here, do not have the resources to provide.

Perhaps the most disappointing finding to emerge from reviewing these new developments is that robust

evaluations are noticeable by their absence. Any evaluations reported are often on small, heterogeneous samples and lack a comparison or control group. This is not surprising as funding for these activities is difficult to obtain and the practicalities of running an evaluation are challenging. Just determining what is the best comparison group for the intervention puts off many researchers. Lack of such evaluations may go some way to explaining why none of these developments reviewed are commercially available. In order to reassure commercial distributors and practitioners that these interventions are worth investing in for their learners, evaluations are necessary. Hopefully, the next review of IT developments for special education will include such evaluations.

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The Evolving Use of Technology in Special Education: Is 'Effectiveness' the Right Question?

John Woodward and Ralph Ferretti

Ever since microcomputers were produced for widespread use in the 1980s, any number of pundits have prophesized how these machines would someday transform education. Oddly, initial expectations about the revolutionary use of computers initially came in the form of Papert's Turtle geometry, a computer programming language accessible to children that was designed to foster problem-solving. Yet as schools amassed more and more microcomputers, educators shifted to more mundane uses, particularly drill and practice and the development of specific skills such as decoding, spelling, and math facts. Practical uses for computers trumped radical changes in the structure of learning. Nonetheless, the promise of emerging technologies such as artificial intelligence and multimedia have had a lasting allure, sponsoring hope that computers and sophisticated software would someday significantly enhance education in ways not found in traditional classrooms.

While visions of technology use in special education have sometimes mirrored these broader, transformative images, there are notable differences. First, technologies have been crafted to empower students with varied physical disabilities. The range of devices and training programs, many of which have remained in 'beta' or non-commercial form, have been impressive. Simulation programs have allowed students to navigate wheelchairs in and around virtual worlds of corridors, ramps, and obstacles. Speech synthesizers, alternative keyboards, and eye tracking devices have also provided modes of access and mobility that have substantially changed the life experience of many students with severe physical disabilities. Research on these technologies generally has been conducted with a limited number of students, and studies tend to follow a human factors methodology. That is, the usefulness of a device is validated by close observation of individual performance under conditions that simulate real world settings.

A second dimension of technology use in special education has been administrative. Special education laws in the United States, for example, require extensive diagnostic assessments and ongoing reporting once students begin receiving services. The potential use of technology to address these different administrative functions is considerable, and it has changed noticeably with the reauthorization of Individuals with Disabilities Act (IDEA) in 2004 and the advent of Response to Treatment Intervention (RTI). In an effort to reduce the number of high incident students (e.g., students with LD) in special education, IDEA as well as No Child Left Behind called for the use of research or 'scientifically based' curriculum in schools as well as a tiered system where students at risk for academic failure would first receive additional support before they were considered for intense, special education services. This tiered structure has sponsored a new level of screening and progress monitoring assessments which are administered across the continuum from general education to pull-out, special education classrooms. While screening tools and probes for academic progress typically may be in paper and pencil form, the dissemination, scoring, and analysis of the data they yield is

increasingly done on computers and through centralized data centers on the internet. Similar resources are used administratively to track discipline and positive behavioral support strategies at the school and district level (see Horner et al., 2009).

A third use of technology – the improvement of student learning – unquestionably has been the predominant area of curriculum development and research in special education. This chapter will focus on the evolving use of technology for learning, particularly involving students with LD. We will begin by briefly reviewing themes from the 1990s, particularly the role of *instructional design* as a framework for designing and then researching technology-based materials. Researchers at the time felt that controlled studies could yield evidenced-based support for the claim that computers and other technological devices could significantly improve learning in an efficient and highly replicable manner. This latter point is worth noting given the traditional concern in educational research for high levels of fidelity of implementation. For example, well-designed math facts programs (e.g., Hasselbring, Goin, & Bransford, 1988), if used an appropriate amount of time per week, could be widely disseminated as a way of helping any number of students with their fact fluency. This has been, in its own modest way, a revolutionary hope for special education technology programs because of the fundamental assumption in the discipline that instruction should be individualized.

Yet as we will see, the increased power and diversity of technology (i.e., the hardware and software), as well as their growing presence inside and outside of school, ultimately weakened the vision of discrete instructional design principles as the foundation for technology-based learning. Put simply, technology today is often configured as just one part of an instructional environment. Logistics, competing instructional goals because of state and national standards, and simple matters of everyday access also mediate the way in which technology is used for students with disabilities today.

THE PROMISE OF THE TEACHING MACHINE

Woodward and Rieth's (1997) comprehensive review of technology use in special education came at a watershed moment in the way computers and other nascent devices (e.g., videodiscs) were being studied for their merits as largely stand-alone instructional media. Research from the mid 1980s through the early 1990s often examined the impact of discrete variables such as feedback, the use of graphics, massed and distributed practice, and the like. The manipulation of these instructional design variables allowed researchers to explore their effects, individually and collectively, on skill and concept development. Special education technology researchers noted that in instances when the medium varied (e.g., computers/videodiscs vs. textbooks), it was the specific instructional design principles rather than the medium that contributed to any significant differences in learning outcomes.

These studies were part of a diverse development and research agenda augmented by extensive grant support from the US Department of Education, Office of Special Education Programs (OSEP). OSEP has (and continues to) sponsored millions of dollars in efforts designed to advance the quality, availability, and effective use of technology. This level of support for software development and research allowed special educators to develop as well as investigate a wide range of technologies that would have otherwise been ignored or never developed. Viewed in the context of international research, the impact of OSEP funding remains striking and relatively unique.

Woodward and Rieth's review (1997) also described the evolution of curriculum-based measurement programs, which followed an entirely different logic for tailoring the use of microcomputers to the learning needs of special education students. Rather than embed techniques for distributing practice on skills or providing different forms of feedback into specially-designed software programs, researchers used computers simply to *monitor* student progress over time as they were taught in a traditional manner (i.e., through non-computer-based instruction such as textbooks, worksheets, or teacher-directed instruction). Teachers or instructional aides could periodically administer brief instructional probes and then record the results in a computer once or twice a week. Software programs analyzed the results, depicted progress graphically, and even advised teachers when and how to modify instruction to meet individual needs (Fuchs, Fuchs, & Hamlett, 1993). Research on progress-monitoring has been most closely associated with the curriculum-based measurement (CBM) movement in special education.

The appeal of a computer-based CBM system is best understood in the context of everyday practice. Special educators often serve large, heterogeneous caseloads, and the ability to administer, score, and analyze assessment data by hand was an unrealistic expectation for practitioners. Moreover, many teachers were not adept at modifying curriculum or instructional methods based on static or declining student performance. Fuchs and their colleagues (Fuchs et al., 1993; Fuchs, Fuchs, Hamlett, & Stecker, 1991; Fuchs, Hamlett, & Fuchs, 1994) turned to expert systems as a way of providing on demand consultation for how to adjust instruction if students were falling below the line of expected progress. Their expert system not only analyzed and graphed data, but they recommended alternative instructional practices. Interestingly, these recommendations were not based on a particularly theoretical orientation but, more broadly, on advice from practitioners.

What was often unnoticed in this agenda was how unaligned CBM expert systems were to the instructional design principles of the time. The logic of CBM is rooted in individual progress – the responsiveness to any potential instructional intervention – as the measure of effectiveness. Ultimately, whatever the mix of methods was for an individual student, they would be deemed acceptable as long as expected progress was maintained. In retrospect, this was one of the first significant movements away from instructional design principles as a foundation for much of special education technology.

INFORMATION AND COMMUNICATION TECHNOLOGY

The varied use of technology in special education today can be attributed to technical as well as theoretical shifts in the field over the past 15 years. The continued improvements in computing power and hardware capacity, which had been predicted by Moore's Law in the mid 1960s, was certainly a key factor in how computer use for learning changed. Increased processing power, improved graphic capacities, CD-ROMs, text-to-speech, speech recognition, and of course, the development of the internet, all expanded the range of how technology could be used. The term Information and Communication Technology (ICT) gradually replaced Computer Based Instruction (CBI).

The emergence of different theoretical views of learning theories, most notably constructivism, has been another force in expanding uses of technology in special education. Researchers now employ cognitive and constructivist frameworks to embed technology in what are often complex learning environments. In this

respect, the measurable effect of the technology alone diminishes because computers, for example, may only be used to look up information or play a video clip. This incidental use of technology is considerably different from the focused use of computers to teach basic skills described in Woodward and Rieth's (1997) review. Another consequence of this shift to more complex learning environments is the difficulty in capturing the effects of the technology on learning using the kinds of experimental or quasi-experimental designs found in the instructional design or CBM studies of the 1980s and 1990s. Finally, in some quarters of special education, principles of *universal design* have superseded instructional design as a way of thinking about how technology could enhance learning. Universal design advocates for multiple representations and multiple formats (e.g., larger fonts, text-to-speech output, online dictionaries) for accessing curricula, thus making it even more difficult to document what features of technology contributed to an improvement in learning (Meo, 2008).

What follows are recent, technology-based examples of innovative approaches to literacy and mathematics along with a brief summary of the research supporting these uses of technology. We will also review the work in universal design as a method for addressing individual differences in students with disabilities. These examples were chosen because of the range of technology uses as well as the fact that they support a common theme: technology often plays either a complementary or even incidental role in learning environments. To be sure, there are instances where computers still serve a CBI function. Yet as we will see in the final section of this chapter, the larger trend is toward technology as a tool with varied uses from skills instruction to blogs, smartboards, and quick access to data on the internet.

TECHNOLOGY SUPPORT FOR LITERACY

Proponents of ICT argue that literacy development of students with LD is a particularly promising area for technology (MacArthur, Ferretti, Okolo, & Cavalier, 2001; MacArthur, 2013). Part of this optimism has been sparked by the realization that evidence-based literacy interventions often do not make their way into schools (Pressley, 2002; Torgesen, Wagner, Rashotte, Herron, & Lindamood, 2010), and that the cost of professional development for inexperienced and unskilled teachers is daunting (Scammaca, Vaughn, Roberts, Wanzek, & Torgesen, 2007). Consequently, proponents turn to a traditional argument in special education: technology can provide specialized, effective, and relatively inexpensive literacy instruction and practice for these students (Torgesen et al., 2010).

Research about the efficacy of instructional technology in promoting literacy skills in students with LD has been extensively analyzed in two comprehensive narrative literature reviews, the second of which (MacArthur, 2013) considers the extant literature published since the first review (MacArthur et al., 2001). Together, they provide evidence about the conditions under which computer technology is effective in promoting the literacy skills of students with LD. While there are minor differences in the categorical organization of these reviews, their principal foci included the effects of instructional technology on students' word recognition skills, reading comprehension, and writing. What follows is a brief summary of the findings along with a description of some of the programs.

Word recognition skills.   Considerable evidence shows that most students with reading problems do not acquire fluent and accurate word identification skills because they have problems processing the phonological

features of language (Adams, 1990; Stanovich, 1988; Torgesen et al., 2010). Students with LD often experience difficulties with phonological awareness, decoding, and fluent word recognition (MacArthur et al., 2001). Consequently, CBI, which is able to monitor the speed and accuracy of students' responses and provide speech feedback during reading, has been developed to address these challenges.

MacArthur et al. (2001) identified five studies that assessed the effects of CBI on students' phonological awareness and decoding skills. In each of these studies, the use of CBI improved phonological awareness and decoding skills. Subsequently, MacArthur (2013) identified 10 additional CBI studies, each of which compared CBI to a non-computer condition or a non-related CBI treatment condition. In short, the results regarding the effects of CBI on students' word identification skills. Five of the nine studies found positive effects of CBI on some measures of students' phonological awareness, decoding, and word reading, but significant differences were not found for other relevant measures. In addition, four of the 10 studies investigated the effects of variations in instructional design on students' word identification skills, and none of these variations were associated with significant differences on any outcome measures. The most powerful effects were observed in three studies that integrated teacher instruction with CBI. MacArthur (2013) concluded that CBI should be used to supplement rather than replace teacher-led instruction.

Software has been developed to provide speech feedback while reading text (Olson & Wise, 1992, 2006). In principle, the provision of speech support should contribute to the development of accurate and fluent reading (MacArthur, 2013). Wise, Olson, and their colleagues' sustained and systematic program of research (e.g., Olson & Wise, 2006; Wise, Olson, Ring, & Johnson, 1998) documents the effects of speech synthesis on the development of fluent reading. Some of the work assesses the effects of different types of speech segmentation on learning isolated words (MacArthur et al., 2001). Other studies document the effects of speech feedback while reading connected text (Olson & Wise, 2006). In short, the evidence shows that speech feedback positively affects word learning and the development of fluent reading, but the type of speech segmentation has no effect on reading outcomes (MacArthur et al., 2001; MacArthur, 2013). Furthermore, the effects of speech feedback are often mitigated by students' failure to ask for feedback. Consequently, the researchers have combined computer-provided speech feedback with human tutoring, and assessed the combined effects on the development of students' reading skills (Wise, Ring, & Olson, 1999, 2000).

Wise et al.'s (2000) findings illustrate the benefits of a computer-assisted remedial reading program and teacher instruction on students' word recognition skills. They contrasted the effects of two interventions that included intensive teacher instruction and computer-supported reading practice on the reading performance of students who were among the lower 10% of the readers in their classrooms. Students in the phonological analysis (PA) condition received approximately 8 hours of instruction involving articulatory concepts, phonological awareness, and explicit phonics. In addition, students in this condition participated in about 20 hours of computer activities and games that included speech feedback to promote their PA skills. In contrast, students in the contextual reading (CR) condition received the same amount of teacher instruction, but it focused on comprehension strategies rather than phonological training. Furthermore, all of the computer activities involved the supported reading of texts. The authors found that students in the PA condition performed better on all phonological measures and on untimed word reading than those in the CR condition. These findings show that the combination of human tutors and computer-supported phonological training positively impacts the phonological analysis skills of students at risk for reading problems (MacArthur, 2013).

Reading comprehension.   The provision of text augmented with speech synthesis, definitions, graphics, and other electronic enhancements may promote the development of students' comprehension skills (MacArthur et al., 2001; MacArthur, 2013). These enhancements may compensate for inaccurate and slow reading and impoverished vocabularies, probe students' understanding and explain challenging concepts, prompt the use of comprehension strategies, and assist students to organize and understand text. The evidence about the compensatory effects of speech synthesis on students' comprehension remains mixed (MacArthur et al., 2001; MacArthur, 2013).

There is some research about the potential benefits of graphics, interactive questions, definitions, animations, and other text enhancements on students' reading comprehension. MacArthur et al. (2001) reviewed nine studies that assessed the effects of enhancements, and MacArthur (2013) identified two additional reports. Like the findings about speech synthesis, the evidence about the effects of text enhancements is mixed. Five of these studies show modest effects of the provision of these enhancements. However, the findings from the remaining studies either showed no effect of the enhancements or equivocal outcomes. MacArthur et al. (2001) concluded that the effects may depend on the types and quality of enhancements, the characteristics of the students, and the extent to which the enhancements are used by students.

Prior to 2001, there were no published reports about the use of computer technology to teach vocabulary or reading comprehension strategies. However, MacArthur (2013) reviewed four relatively recent studies that focused on the development of these skills, and a review of READ 180 that appeared in the What Works Clearinghouse (2009). All of these studies compared the effects of teacher instruction combined with technology support with teacher-provided instruction in comprehension strategies, and they generally showed positive effects of using integrated CBI for teaching comprehension and vocabulary strategies (MacArthur, 2013).

Writing.   Students with LD engage in relatively little planning before writing, limit their revisions to correcting surface errors, and have difficulties with transcription processes (MacArthur et al., 2001). Compared to their normally-achieving peers, their written products are typically shorter, contain more spelling and punctuation errors, are poorly organized, and are of lower quality (Troia, 2006). Technology beyond CBI has the potential to support students with LD by compensating for these difficulties and helping them manage the writing process (MacArthur, 2013). Word processors, tools that aid with transcription, and tools that support planning and revising hold promise in overcoming these challenges.

In principle, word processing should encourage students to engage in the writing process, and obviate some of difficulties they experience with handwriting and transcription. Furthermore, word processors include tools (e.g., spell and grammar checkers) that may support writing. The available evidence shows that word processing results in a slower composing rate for students who are not proficient typists and increases the number of minor revisions made during composing, but has little effect on writing quality (MacArthur et al., 2001). However, the writing of students with LD benefits from instruction that enables them to capitalize on the features of word processors. The limited research about the effects of spell and grammar checkers suggests that they can aid in detecting and correcting errors (MacArthur et al., 2001; MacArthur, 2013). However, these tools require instruction because they sometimes miss errors (e.g., homonyms) and the user must

evaluate the suggested corrections.

Students with LD often experience challenges with written transcription. Two tools, word prediction and speech recognition, have the potential to mitigate these challenges. As a person types or speaks, word prediction software suggests possible words based on the letters entered, common words, the user's history, and other cues. In total, three studies assessed the potential benefits of word prediction for students with LD, and they found better spelling accuracy and writing legibility compared to handwriting and word processing (MacArthur et al., 2001; MacArthur, 2013). Furthermore, speech recognition software allows the user to compose by dictation without the assistance of another person. In total, five studies assessed the benefits of speech recognition technology on the transcription process, and these studies show that students with LD write longer and higher quality essays with this technology (MacArthur et al., 2001; MacArthur, 2013). We note, however, that speech recognition accuracy is limited even after training the system to recognize the user's voice. The systems require careful articulation, dictation of punctuation, and suppression of extraneous vocalizations. In addition, users must learn to recognize and correct mistakes, all of which are real words. Most students with LD will require instruction to use this technology well.

Finally, technological tools are available to aid students with LD in the planning and revising process. Word processors allow students to outline their written products, concept-mapping software allows them to draw maps and graphic organizers to organize ideas, and prompting programs promote planning and revising by asking questions during the writing process. There are a dearth of well-designed research in this area, but evidence from two recent studies on electronic concept mapping and prompting suggest that these tools may support the development of longer and higher quality essays if they are part of a effective, teacher-guided instructional approach to writing (MacArthur, 2013).

TECHNOLOGY SUPPORT FOR MATHEMATICS

Constructivist uses of technology in special education can be traced to the Cognition and Technology Group at Vanderbilt (CTGV) in the 1990s. In contrast to the dominant, skills oriented approaches to instruction, students are encouraged to take an active role in acquiring and analyzing data. By using 'real world' settings and ill-defined problems, these researchers have attempted to 'anchor' academic exercises in a more contextualized world, one closer to the arena where students and adults actually solve problems.

Bottge's recent work in anchored instruction (Bottge, Rueda, Serlin, Hung, & Kwon, 2007; Bottge, Rueda, Grant, Stephens, & Laroque, 2010) pays special attention to the role authentic, transfer tasks play in helping students see connections between the formal knowledge of mathematics as it is taught in schools and how it is used in the world. Students work closely in mixed ability groups on problems requiring considerable persistence to complete. Teachers mediate the learning by scaffolding student understanding where necessary, often probing for understanding, problem-solving strategies, and misconceptions. In addition, teachers conduct brief practice sessions to solidify mathematical knowledge needed for the problem-solving.

Video vignettes from computer-based programs are used to present the context for the problem-solving. They also allow students to learn about math concepts and even conduct measurements. Finally, students work on enhanced anchored instruction (EAI) activities related to the video vignette. For example, they access further information about a problem from the computer (e.g., build a skateboard ramp) including schematic

diagrams that can be manipulated. In some of the activities, students actually construct the devices such as a rollover cage for a hovercraft. It is clear from this work that technology is simply one tool in a complex learning environment. Teasing out the specific effects of the technology does not play a role in their research designs.

Xin, Tzur, and their colleagues (Simon, Tzur, Heinz, & Kinzel, 2004; Xin, Tzur, & Si, 2008; Zhang, Xin, & Si, in press) offer a more focused use of computers to teach mathematics from a constructivist perspective. However, Piaget, rather than the social constructivist movement, influences their work. Students are presented with carefully graduated tasks of composing quantities using blocks on a computer screen. Current work involves teaching students with LD how to coordinate two quantities as a foundation for multiplication. For example, in the problem 4 × 3, the quantity 3 is a composite unit (i.e., it is composed of 3 individual units) that is distributed 4 times. Moreover, the constructivist's concern is not just with the overt performance typically associated with these tasks. Instead, it is on how students reason and conceptualize problems like 4 × 3 when they are presented as non-routine tasks.

Students are closely observed and probed as they solve problems like 4 × 3. The intent is to get students to reflect on their current conceptualization of an idea (multiplication in this case) as well as their strategies. More specifically, students are prodded to think about their goals and the results of their current activities. A particularly intriguing technique is to get students to visualize the quantitative relationships in a problem like 4 × 3 by first constructing a composite unit of 3 cubes and then have the computer cover a set of these units but for the four 'toes' of towers of cubes. Students are then asked to think about problems like 4 × 3 as a means of moving them toward the more abstract conceptualization of multiplicative relations as well as asking them what 6 × 3 would look like as a multiplicative structure. This software, which is still under development, still requires a significant level of human tutoring simply because of the need to tailor meta-cognitive questioning for students depending upon the context. In this respect, the work of Xin and her colleagues indicates one of the more interactive uses of technology and human tutors developed for use in special education.

A final example of cognitive-constructivist work in mathematics turns on spatial cognition and the importance of visual imagery. ST Math (Rutherford et al., 2010) uses neuropsychological theory as the basis for highly structured math games and puzzles. Each game is part of a graduated series of problems that are sequenced based on student performance. Unlike typical, commercial math software that is often filled with distracting graphics, text, and/or sound, ST Math games minimize these features, making the goals of the games more transparent. Games focus on major concepts (e.g., the fair share concept of fractions, number line representations for counting or operations on integers), and the graduated nature of games demands an increased level of problem-solving. Typically, students play 20–30 games in a 45-minute lab session two times per week. Interestingly, these games are not coordinated with math topics taught at the same time in the classroom curriculum. This disconnection between lab tasks and the content of instruction found in the classroom is a striking feature of this work.

Unlike some math software, which may end before students are given substantial feedback, ST Math games offer instructive feedback to both correct and incorrect solutions. If the student solves a game correctly, the solution is animated showing why the methods were appropriate. Corrective feedback for students who do not solve the puzzle or game correctly compare the student solution to an ideal solution. This feature of ST Math

is reminiscent of the instructional design concerns of the 1990s described earlier.

However, this is a substantial difference in the way ST designers refine their materials from what typically occurred in the controlled instructional design studies Woodward and Rieth (1997) summarized over a decade ago. ST games are internet-based, allowing designers to capture the discrete input of students from all over the country. These data are analyzed periodically, particularly shortly after a new set of games around a concept (e.g., symmetry in geometry) is released. Developers can determine whether specific games in a set are appropriately sequenced from easy to difficult, or if there are deficient features of a particular game. This diagnostic data from thousands of users rather than theoretical principles used once and the encoded in software, is a significant advance the instructional design approach of the 1980s and 1990s.

UNIVERSAL DESIGN

The concept of universal design reflects many of the broader promises and hopes reflected in the worldwide ICT movement. Mace (cited in Rose & Meyer, 2002) invented the concept of universal design and established with his colleagues principles for the design of accessible physical environments. These principles include a commitment to equitable use, flexibility and simplicity of use, tolerance for error, low physical effort, and perceptibility of relevant information (Connell et al., 1997). In the recent past, the implications of universal design principles have captivated educators interested in making learning environments as widely accessible as possible. At a time of heightened performance expectation for all children and the US federal mandates to ensure the inclusion of children with disabilities in the general education curriculum (e.g., No Child Left Behind Act, 2001), many educational policy-makers view the universal design movement as offering a set of organizing principles for the inclusive education of students with disabilities.

However, it is important to distinguish between learning environments that create greater access to *information* and those that ostensibly afford greater access to *learning*. Much of the writing on universal design conflates these two notions, drawing on the imagery of wheelchair ramps and sidewalk curb cuts as a way of arguing for the potential of technology to make the lives of people with disabilities more on par with their non-disabled peers. The examples of universal design that signify greater access to information often amount to what are otherwise referred to in the special education technology literature as assistive technologies. These include modified keyboards, speech recognition, text-to-speech, scalable fonts, and so forth. Most certainly these technologies potentially enable a diverse range of students with disabilities the opportunity to communicate with teachers or technological devices as well as access media (e.g., listen to text).

The argument for greater access to learning is more interesting as well as more contentious. Rose and Meyer (2000) underscore the importance of access to learning through a case of a child with dyslexia who is given computer-supported electronic text with speech synthesis (or text-to-speech) to gain access to written information. The provision of this technology obviates barriers to the printed page; the child is now able to access previously inaccessible written information. However, this access to text may actually undermine important acquisitions, such as learning to decode unfamiliar words. Dalton and Pisha (2001) discovered as much in their work with struggling middle school readers. These students relied heavily on text-to-speech functions when they were reading difficult material. Clearly, the principal difference between these forms of access lies in the *goals* associated with the technology's use. Universal design for access to *information* always

impels the provision of maximum support for the user. Universal design for access to *learning* balances information access against the goals of the learning activity.

In a later writing, Rose and Meyer (2002) described a set of learning principles that appear to be informed by discoveries in the developmental neurosciences about the organization of brain networks. Acknowledging that these networks are extraordinarily complicated and functionally-organized at multiple levels, Rose and Meyer focus on recognition, strategic, and affective networks that are thought to play an important role in learning. Recognition networks enable people to identify, understand, and attach meaning to patterns that are sensed. Strategic networks enable self-regulation of actions and skills that are essential for learning. Affective networks motivate learning because they attach emotional importance to perceived patterns.

Recent research suggests that the brain's architecture is composed of between 500 and 1,000 cell groups or nodes of brain circuitry (Bota, Dong, & Swanson, 2003) and much remains to be learned about their functional role in learning. Rose and Meyer (2002) neither explicitly articulate the theoretical or empirical basis for their proposed networks, nor contrast their functional properties with other known brain networks. Nevertheless, we suspect that the proposed networks are meant to have heuristic value, in the sense that they draw attention to design principles for accessible learning environments.

These principles, which emphasize flexible and multiple access methods, are linked with the three hypothesized brain networks: (1) Provide means and forms of representation to support recognition networks; (2) Provide methods of '… expression and apprenticeship …' to support strategic networks; and (3) Provide means and methods of engagement to support affective networks (Rose & Meyer, 2002). In fact, there is considerable behavioral evidence for each of these principles (Bransford, Brown, & Cocking, 2000; Shonkoff & Phillips, 2000), and their validity does not depend on an isomorphic relationship with the hypothetical neurological networks alluded to in the universal design literature. In fact, Rose and colleagues intimate that the theoretical and conceptual linkages among these principles and brain networks that supposedly underlie them are speculative at best.

Empirical support for the kind of universal design that affords greater access to learning is exceedingly limited. Proctor, Dalton, and Grisham (2007) offer a detailed account of the way universal design principles can be blended with rich literacy environments for ELL and struggling readers. These researchers drew on the reciprocal teaching literature (Palincsar & Brown, 1989) to create a computer-based program that contained comprehension strategies, hyperlinked vocabulary words and text-to-speech functions. Some of the features of their program were standardized for all students such as periodic sections of the text where students were asked to summarize, clarify, predict, question, or visualize what they had read. Students could obtain expert models and hints if they struggled with these tasks. In keeping with universal design, there were a number of features in the program that students used their own judgment to access. Results of the study showed students varied considerably in their use of glossaries, hyperlinks for vocabulary, and comprehension supports. It should also be mentioned that this study did not contain a comparison group and pre-test to post-test results were not significant.

The concept of universal design has important practical consequences for the education of students with disabilities because it encourages planners to conceive of technologies that are generally useful for all people regardless of their individual characteristics. However, we are doubtful that empirical research will ever convincingly establish the distinctive efficacy of technologies designed in accordance with the principles of

universal design for learning for two reasons. First, any assistive technology can, in principle, accomplish the same goals as technology designed in accordance with the principles of universal design as they relate to increased access to information. Therefore, the choice between assistive and universally-designed technology will likely be based on criteria other than its efficacy (e.g., user preferences, ease of use, customizability). Second, as we mentioned earlier, the effects of technology are often impossible to disentangle from the characteristics of effective instruction. The effectiveness of universally-designed technologies that afford greater access to learning will depend upon sound principles of instructional design.

THE PROBLEM OF TRANSLATING RESEARCH USES OF TECHNOLOGY INTO PRACTICE

As this review indicates, technology use to improve learning shows little sign of abating. In some cases, technology becomes so embedded in an intervention (e.g., anchored instruction) that the particular effects of computers or other devices goes undocumented. In this respect, technology is simply another tool, one that replaces a long history of devices such as VCRs, film projectors, and hand calculators.

In cases where research documents the educational benefits of technology, the results are often less than impressive. For example, well-designed math tutoring programs show no discernible effects over teacher-based instruction at the secondary level (Empirical Education, 2007; What Works Clearinghouse, 2010). Broader examinations of technology interventions at the elementary and secondary level yield similar conclusions (Slavin, Lake, Chambers, Cheung, & Davis, 2009, Slavin, Lake, & Groff, 2009). While disappointing, these results are consistent with efforts to study the effects of technology under naturalistic conditions.

It is also likely that a host of variables that have traditionally impacted technology use in schools also mediate their role as a dominant medium for learning. For example, Cuban (2003) has long lamented the way districts have adopted technology somewhat haphazardly, only to find them at the periphery of everyday instruction and eventually outdated and underused. When computers are configured for instruction, particularly in labs, their use may be compromised by any number of scheduling and logistical issues. This critique, however, tends to assume that technology – particularly desktop or laptop computers – should be used intensively as many of the original enthusiasts may have envisioned.

Yet, the notion of intentional use, particularly to improve student learning, may be an untenable assumption in today's world where the range of technologies and their ready availability make them better suited to either incidental or motivational uses. Each use bears its own brief consideration.

Data on the incidental uses of technology are difficult to find, but recent surveys of general education teachers suggest a substantial penetration of technology in the classroom over the past decade (Gray, Thomas, & Lewis, 2010). Of those surveyed, 97% had access to at least one computer in the classroom, and 93% had internet access. Teachers claim their students use technology sometimes or often to prepare written text (61%), create or use graphic displays (53%), conduct research (66%), learn or practice basic skills (69%), correspond with others (31%), develop multimedia presentations (45%), and solve problems or analyze data (45%). Less time is devoted to conducting experiments (25%) and running demonstrations or simulations (17%).

This diverse use of technology is compounded by the increasing range of hardware (e.g., smartphones,

tablets, smartboards, digital cameras and projectors) and Web 2.0 technologies (e.g., blogs, wikis, social networking sites). How many of these technologies are used and for how much of the time is difficult to document, but the trend may suggest widely-available technologies are diluting the traditional assumptions associated with CBI; that is, computers and related technologies are primarily media for improving student learning. Instead, teachers and students now have the opportunity to access a wide array of technologies for incidental uses at any time (Franklin, 2011).

A second use of technology emerging in the literature underscores the role of motivation. It should be remembered that a key assumption behind Bottge et al.'s (2010) is that rich, multimedia environments can be engaging to disaffected students. Vasudevan (2010) makes a similar argument in her reflections on the flexible use of technologies such as digital cameras, voice recorders, and video editing software used to create multimedia projects that are distributed across social networks. Web 2.0 is emblematic of the change in the way students interact with computers, where greater emphasis is placed on active participation, collaboration, production, and distribution of knowledge. As Jenkins, Clinton, Purushotma, Robison, and Weigel (2006) note, these kinds of social media-driven environments provide low barriers to individual expression as well as an inherent opportunity to share their projects with others. How technology might be factored out as an effective teaching tool is not a concern for these researchers.

Another variant on motivational uses of today's collaborative technologies is essentially a return to one of the earliest rationales for computers in schools: the use of micro-worlds and simulations. Samuels (2010) exemplifies this renewed enthusiasm for the integration of computer control devices and robots as a rich context for teaching mathematics. While today's hardware and software are unquestionably more sophisticated, his characterization of a geometry learning environment is not unlike Papert's (1993) vision of LOGO.

Devlin (2011) also revives another early area of educational computing: simulations and games. He argues that there are fundamental differences between today's games and those from the 1980s and 1990s. The software programs and computers are much more powerful, thus yielding significantly better graphics and interactive effects. The games are often played on social networks, and are more complex and challenging. At the same time, interactions tolerate failure, which is one element that may make them more engaging to students. Devlin is illusive in articulating exactly what mathematics students might learn in these environments, and like others, emphasizes that the potential for engagement and incidental learning far outstrip what highly intentional, skills-based programs on computers have to offer. In essence, he argues that the traditional, intentional uses of computers for learning are misguided.

These brief considerations of the incidental and motivational uses of technology highlight the rapidly changing way we interact with computing devices. They also return us to the question, 'Is technology effective for students in special education?' Most certainly, some of the CBI applications described earlier in this chapter may find their way into widespread use, though their uses will remain mediated by a range of logistical and curricular constraints, yet the way different technologies are increasingly embedded in and outside of schools make the concern about the instructional effectiveness of technology seemingly less and less relevant.

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Friendships and Peer Relations Among and Between Children and Young People With and Without Learning Difficulties and/or Disabilities

Dawn B. Male

INTRODUCTION

The enduring importance of friendship in people's lives has long been recognized (Amos, 2004). The benefits of friendships on psychological and physical health have been well documented. Developmental theorists (e.g., Piaget, 1932) and social learning theorists (e.g., Bandura, 1977) have emphasized the importance of positive child-child relations in facilitating child development. Others have emphasized the role of peer relations in the child's personal identity formation (e.g., Erikson, 1968) and in the acquisition of higher level social skills (e.g., Grenot-Scheyer, 2004). More specifically, the positive influence of peer acceptance has been demonstrated empirically on the socialization of aggressive and sexual impulses (see Hartup, 1978), and on cognitive (e.g., Rardin & Moan, 1971), linguistic (see Bates, 1975), sex-role (e.g., Fagot, 1977) and moral development (e.g., Damon, 1983). Having even a single friendship has been shown to reduce the negative impact of general peer rejection, including reducing feelings of loneliness (Parker & Asher, 1993). In contrast, a lack of friendships predicts lower prosocial behaviour, higher emotional distress, and lower levels of achievement (Barry & Wentzel, 2006). Peer acceptance and social status is thus seen as vital to the well-being of the child and young person.

THE IMPORTANCE OF FRIENDSHIPS AND PEER RELATIONS

Consider the following statements by young people with autism, talking about the importance of friendships (cited in Humphrey, 2008):

> … if people are nice to you, you feel better. When I was in school when people didn't like me it was rubbish and now many more people like me it's easier.

> People don't get on with me and I don't really get on with them and I often try to make friends with them … [but] they often just go against me.

In the past the friendship needs and aspirations of people with learning difficulties and/or disabilities has received relatively little attention in either research or policy and practice (Emerson & McVilly, 2004). However, it is increasingly acknowledged (e.g., Foundation for People with Learning Disabilities, 2005, 2011) that people with learning difficulties and/or disabilities – like their typically-developing counterparts – attach great importance to friendships. In a review of services and provision for disabled children and young people and those who have special educational needs (SEN) conducted by the English Office for Standards in

Education (Ofsted, 2010) the young people who were interviewed were reported as being clear about what they wanted for the future, and this included successful relationships and friendships.

Parents, too, attest to the importance of friendships for their child or young person with learning difficulties and/or disabilities: Cuckle and Wilson (2002), for example, in a study of social relationships and friendships among young people with Down syndrome in the United Kingdom (UK) secondary schools report that, 'Social development and friendships were major areas of concern expressed by parents … Most parents would have liked their children to have more friends …' (p. 69). Comparative studies conducted in Europe and the United States, enquiring into parents' views about special educational provision, report that the development of friendships by their child with disabilities is an area of significant present and future concern (Male, 1998; Plaute & Westling, 1996; Westling, 1996, 1997).

Researching into friendships and peer relations among and between children and young people with and without learning difficulties and/or disabilities

A variety of research techniques have been used to study friendships among and between children and young people with and without learning difficulties and/or disabilities. Commonly, social relationships of children and young people with learning difficulties and/or disabilities are inferred secondarily; for example, via observations (naturalistic and/or structured) and most usually in relation to their typically-developing counterparts (e.g., Cutts & Sigafoos, 2001). Frequently, key informants (e.g., teachers, support workers, parents, peers) are surveyed (e.g., Bunch & Valeo, 2004; Guralnick, Connor, & Johnson, 2011; Solish, Perry, & Minnes, 2010).

The self-advocacy movement affirms the right of all disabled people to enjoy the same basic human rights as their fellow citizens (Mittler, 1996). Core components of self-advocacy include being able to express thoughts and feelings with assertiveness and being able to make choices and take decisions (Further Education Unit, 1990). Accordingly, what has been termed 'inclusive research' practices (see Chappell, 2000; Walmsley, 2001, 2004) are increasingly being advocated, and ways of 'hearing the voices' of children and young people with learning difficulties and/or disabilities are being sought (see, for example, Harding, Lindsay, O'Brien, Dipper, & Wright, 2011; Lewis, 2002; Porter, 2009; Rose, 1998).

Enquiry techniques which seek to involve children and young people with LDDs in the research process include questionnaires (e.g., Chamberlain, Kasari, & Rotheram-Fuller, 2007; Heiman, 2000; Locke, Ishijima, Kasari, & London, 2010), interviews (structured and semi-structured) (e.g., Cuckle & Wilson, 2002) and sociometric techniques (e.g., Avramidis, 2010; Male, 2002). In the case of children and young people with the most profound and complex needs, the use of supports such as Talking Mats – an aided communication system developed by Joan Murphy (1998) – has been reported (e.g., Wright, 2008).

UNDERSTANDING 'FRIENDS' AND 'FRIENDSHIP'

When enquiring into friendships from the perspective of children and young people with learning difficulties and/or disabilities, an important question to ask is: Does the child/young person have a concept of what a friend is and an understanding of what friendship is all about? Notwithstanding the relative dearth of research in this area, the indications are that they do:

She's my friend … my best friend … I'm her friend … she's kind to me … never horrible … we share … we come on the bus … she helps me do things … and I help her … she sits with me … we stay together at break time … say secrets! No boys! (Katie describing her long-term friendship with Lizzie)

The day starts with a 'Good Morning' session and Ruby and Megan seek each other out by looking intently at each other or by walking over to each other. They also use their voices and staff wonder if they are saying 'Good morning' to each other. Ruby appears to be the one in charge – using her voice and looking intently at Megan to gain her attention. When Megan sits next to Ruby she often has a big smile on her face and will reach out to hold Ruby's hand. When watched from afar one gets the feeling that the two girls really enjoy each other's company … they seem to 'chat' to each other in a language we can't understand, laughing out loud, watching each other's movements and holding hands. (The friendship of Ruby and Megan being described by their teacher)

An Aristotelian conceptualization of friendship depicts it as a choice to engage with goodwill towards another, goodwill reciprocated, and a shared recognition of the reciprocated goodwill by both persons (Aristotle, 1963). Katie's account of her friendship with Lizzie and their teacher's description of the friendship of Ruby and Megan appear to be consistent with this depiction of friendship: Katie and Lizzie, Ruby and Megan appear to provide each other with nurturance, support and security; they offer company and opportunities for intimacy; there is a sense of equality in the relationship.

Research more generally appears to support this 'mainstream' conceptualization of friends and friendships held by children and young people with learning difficulties and/or disabilities. In a study by Margalit (1994), for example, preadolescent and adolescent students with learning difficulties and/or disabilities reported that a good friend is someone who helps them, someone with whom they can have fun, a companion, someone with whom they can journey to school, someone with whom they can play, and someone with whom they can talk on the telephone. Cuckle and Wilson (2002) report similar 'mainstream' notions of friends and friendships among children with Down syndrome: 'a friend' is someone who is loyal and kind; who can ask and be asked for help; who likes the same things and shares activities; who 'sticks up for you' or 'is there for you'. They conclude that, '… ideas among young people about what constituted friendship were very consistent. The vast majority had a strong sense of what friendship entailed' (p. 68).

In a sociometric study conducted by Male (2002), reasons given by adolescents with severe learning difficulties and/or disabilities to justify their choice of a friend indicated rational – if perhaps somewhat unsophisticated – notions of friendships:

He's nice … he helps me do stuff … he plays football with me … he helps me put them away. (Andrew, nominating Michael as his friend)

I cuddle him … he holds my hand … I walk in with him. (Michael, nominating Andrew as his friend)

He's nice and we do gardening together. (Helen, nominating Aziz as a friend)

From these and other nominations made by the adolescents participating in the study Male concludes that, '… the relationships and friendships … appeared genuine and to be of significance … choices made were stable and valid and appeared to be based on similar criteria of acceptability to "mainstream" choices'.

The work of Gleason (1989, 1994), as described by Klotz (2004), illustrates the significance of the role of the nondisabled researcher in helping us to understand the nature and 'meaningfulness' of the social relationships of those with the most profound disabilities. Klotz describes Gleason's work with two nonverbal boys called Thomas and Daniel thus:

> Rather than correcting their behaviour and forcibly moving Thomas and Daniel away from one another as they rolled around on the floor in a seemingly meaningless and chaotic manner … Gleason allowed the boys to interact as they wished. By adopting a methodology that maintained a sense of the context within which their actions and interactions took place, Gleason discovered that Thomas and Daniel were actually engaging in meaningful and intentional behaviour. He realised that they had developed shared and learned patterns of engaging with one another … (Klotz, 2004, p. 100)

Similar observations are made by the teacher of Paula and Tabitha, both of whom have profound learning difficulties and/or disabilities. Paula and Tabitha's teacher describes the nature and facilitation of their friendship:

> Paula and Tabitha have extremely limited physical movement and spend the majority of their time in moulded wheelchairs or in standing frames. During soft play sessions they are hoisted on to a mat, close to each other. Often, they have been seen to reach out their hands to touch each other and then to spend the remainder of the session with their hands resting in this position. This touching behaviour does not happen when they are placed near to other class members. Staff interpret this as being an indication of their enjoying each other's company and now ensure that they continue to have these opportunities to be together.

The conclusion that might be drawn is that Thomas and Daniel, Paula and Tabitha, notwithstanding their profound learning difficulties and disabilities, had – like Katie and Lizzie, Ruby and Megan – arrived at an Aristotelian conceptualization of a relationship i.e., one which was engaged in through choice, which was reciprocated and which was based on goodwill.

FACTORS INVOLVED IN THE FORMATION OF FRIENDSHIPS AND PEER RELATIONS

Numerous factors have been found to be involved in the formation of interpersonal relationships (Mussen, Conger, Kagan, & Huston, 1990). In 'mainstream' studies, a factor consistently found to be associated with social acceptability is physical attractiveness: more physically attractive individuals tend to be more liked than less attractive individuals. There are some indications that this may also be the case for children and young people with learning difficulties and/or disabilities: in a sociometric study by Male (2002), for example, the 'star' of the group was described (admiringly) by another as 'looking like a man' whereas a rejectee was described (in derogatory tone) as 'looking like a baby'.

Other factors found to be involved in the formation of interpersonal relationships are *proximity* ('nearness') and three types of similarity: *attitude similarity*; *demographic similarity* (e.g., age, sex; socioeconomic status) and *similarity in personality*.

The similarity hypothesis may at least partly explain why, even in inclusive settings, children and young people with learning difficulties and/or disabilities are more likely to form friends with other children and young people with learning difficulties and/or disabilities than with typical peers. Guralnick et al. (2011), for example, reported that children with Down syndrome were significantly more likely to choose to play with other children with special educational needs rather than their typically-developing peers; this was the case regardless of educational setting i.e., full inclusion, partial inclusion, partially specialized, or specialized.

In terms of rejection, differences have been found according to the status of the children and young people. Roberts and Zubrick (1992, cited in Frederickson & Furnham, 2004), in a study investigating variables associated with peer sociometric status for 8–13-year-olds including pupils with moderate learning disabilities, reported that, for mainstream pupils, sociometric rejection was predicted by peer perceptions both of academic

behaviour and of disruptive behaviour, whereas for pupils with moderate learning disabilities, only peer perceptions of disruption were related to sociometric rejection. Nabuzoka and Smith (1993) also reported differences between peer-assessed sociometric status for 8–12-year-olds and their typical peers. For typical pupils only acceptance was associated with high peer-nominations for leadership and rejection was associated with low peer-nominations for co-operative behaviour and high peer-nominations as a victim or someone who seeks help frequently. Newcomb et al. (1993, cited in Frederickson & Furnham, 2004) note that it is consistently reported in mainstream samples that rejected children score higher than averagely accepted children on aggressive and acting-out behaviour and lower on prosocial behaviours, while popular children score higher than average on prosocial behaviours and lower on aggressive and acting-out behaviours; in keeping with this, Avramidis (2010), in a study of 566 British primary-school age pupils, reported that those with SEN were more likely to be nominated on anti-social indicators than were typical pupils, with boys with SEN being more frequently perceived as 'rule-breakers' and girls with SEN being more frequently perceived as 'shy/withdrawn'. However, those pupils identified as having SEN who were well integrated in peer groups were more frequently perceived as having the prosocial characteristics of leadership and sportsmanship.

The nature of friendships and peer relations between children and young people with and without learning difficulties and/or disabilities

International reports (e.g., OECD, 1981; UNESCO, 1994) and national legislation in many countries (e.g., in the UK, the Special Educational Needs and Disability Act, 2001; in the US, Individuals with Disabilities Education Act Amendments of 1997 [1997]) call for the inclusion of children and young people with learning difficulties and/or disabilities in 'ordinary' educational settings. In England, just over one in five pupils (1.7 million school-age children) are identified as having SEN; around two-thirds are educated in mainstream schools (Ofsted, 2010). Inclusion rests on notions of equality and human rights (Centre for Studies on Inclusive Education, 2012) and a perceived benefit is increased opportunities for socialization with 'typical' peers. Research interest, therefore, frequently has focussed on social relations between children and young people with learning difficulties and/or disabilities and their typical peers.

Meyer, Park, Grenot-Scheyer & Harry (1998) describe six 'frames' of friendship between children and young people with and without learning difficulties and/or disabilities. These 'frames' represent a thematic category that emerged from observing children and young people with learning difficulties and/or disabilities and their typical peers. The six 'frames' identified by Meyer et al. (1998) are:

- *Ghosts & guests:* this frame describes the invisible social status of children and young people whose presence is acknowledged, but who continue to be viewed as outsiders.
- *The inclusion kid/different friend:* differential treatment of either a positive or negative nature characterizes this frame; children and young people were described as e.g., 'cute' or 'weird' by their typically-developing counterparts.
- *I'll help:* observations within this frame included various examples of assisting.
- *Just another kid:* observations within this frame indicated that for some children and young people without learning difficulties and/or disabilities those with them were 'no big deal'.
- *Regular friends:* these were not 'best' friends but were friends who were part of a larger social network.
- *Friends forever:* a best friend who is unique and special.

Perhaps unsurprisingly, Meyer et al. report that many observations fell within the 'I'll help' frame; parents

were reported to find this frame acceptable insofar as the indication is that their son or daughter is being cared for and looked after. The 'friends forever' frame was described as a critical yet elusive kind of relationship between children and young people with learning difficulties and/or disabilities, and typical children and young people that was rarely evident in the research.

The notion of 'help' has also featured in other studies, e.g., Heiman (2000) compared the responses of adolescents with mild learning disabilities in two different educational settings (special education and inclusive settings) and with responses by typical pupils. When asked to describe 'a good friend', four categories emerged: 'one who helps'; 'emotional support'; 'partners for thoughts and secrets'; and 'mutual entertainment'. Significant differences in the item of 'one who helps' were reported, with fewer special education pupils mentioning help than pupils in inclusive settings and typical pupils. Heiman also found differences in the reported *numbers* of friends according to placement, with pupils in special schools tending to have fewer friends than pupils with and without learning difficulties and/or disabilities in inclusive settings.

In terms of actual interactions in inclusive settings between children and young people with and without learning difficulties and/or disabilities, the research literature (e.g., Gresham, 1982; Gresham & MacMillan, 1997; Locke et al., 2010; Nabuzoka & Smith, 1993; Taylor, Asher, & Williams, 1987) and reviews of the literature (e.g., Asher & Taylor, 1981; Madden & Slavin, 1983) conclude that, in general, children and young people with learning difficulties and/or disabilities have lower social status than their typical peers. These children and young people are reported to be more frequently ignored (Bryan, 1976), remain socially isolated (Chamberlain et al., 2007; Faught, Balleweg, Crow, & van den Pol, 1983; Locke et al., 2010) or are rejected (Stone & LaGreca, 1990; Vaughn, Elbaum, & Schumm, 1996). Pupils with LDDs also self-report higher levels of loneliness and negative affect in inclusive settings than typical peers (e.g., Sharabi & Margalit, 2011).

Various sociometric studies (e.g., Goodman, Gottlieb, & Harrison, 1972) have consistently shown that children and young people with learning difficulties and/or disabilities are less well accepted by their typical peers than are other typical children and young people. Wolfberg et al. (1999), in a study of children attending inclusive pre-school programmes, found that whilst these children expressed a desire to interact with their typical counterparts and experienced interactions to varying degrees, they also experienced exclusion from peer culture through neglect, social-communicative breakdown, conflict, and rejection. Farrell and Scales (1995), in a study of a nursery class containing eight children with severe learning difficulties and/or disabilities and eight typical children, found that whilst children with learning difficulties and/or disabilities were equally likely to choose to play with and sit next to both groups of children, the typical children showed a preference for other typical children.

Even when relationships are formed between children and young people with and without learning difficulties and/or disabilities, the nature of these relationships is unlikely to be the same as they are between children without learning difficulties or disabilities. For example, Jenkinson (1983), in a sociometric study of pupils with moderate and severe disabilities, found that their sociometric status in an inclusive setting suggested that acceptance of these pupils by their typical counterparts was not on an equal basis; consistent with other findings, 'helping' was a frequently mentioned characteristic of these friendships.

A study by Wendelborg and Kvello (2010) indicated that, in terms of perceived social acceptance and peer intimacy, the type and severity of the learning difficulty and/or disability had no direct effect, but an indirect effect because they influenced educational arrangements which, in turn, predicted social participation in

leisure time. Social participation in leisure time was the only variable with a direct effect on social acceptance and peer intimacy. Children who had no or few hours of special education or hours with assistants perceived themselves as having more social acceptance and peer intimacy. In addition, children who were more than 75% together in ordinary ('regular') classes appeared to perceive themselves as having more social acceptance and peer intimacy. The conclusion reached was that, within inclusive settings, educational arrangements can obstruct children with learning difficulties and/or disabilities from participating and interacting socially, and may have a negative impact on their perceived social acceptance and peer intimacy. Findings such as these clearly have implications for the facilitation of friendships between children and young people and the allocation of special education within inclusive settings.

Bunch and Valeo (2004) explored the attitudes of pupils aged 6 to 18 years towards peers with learning difficulties and/or disabilities in inclusive schools (i.e. 'regular' classes only) and in schools with special education systems (e.g., special classes). Pupils were asked general questions designed to assess their knowledge of and overall attitudes towards peers with learning difficulties and/or disabilities and more specific questions if a pupil was placed full- or part-time outside the 'regular' classroom. From the responses, four categories emerged:

- *Friendships:* whether pupils with and without learning difficulties and/or disabilities were friends.
- *Abusive behaviour:* whether pupils without learning difficulties and/or disabilities harass peers with such difficulties.
- *Advocacy:* whether pupils without learning difficulties and/or disabilities defend pupils with them.
- *Exclusion-inclusion:* whether pupils without learning difficulties and/or disabilities accept the model under which these pupils were educated in their school system.

The findings indicated the development of friendships and lower degrees of abusive behaviour in inclusive schools. Though pupils in both settings advocated for pupils with learning difficulties and/or disabilities, advocacy was found to be more routine in inclusive settings. Most pupils believed the approach taken by their schools to be appropriate for the education of peers with learning difficulties and/or disabilities. Bunch and Valeo (2004) conclude that the findings '… suggest support for those who argue that inclusive education compared with special education results in more positive social relationships' (p. 76).

Promoting friendships and peer relations between children and young people with and without learning difficulties and/or disabilities

The traditional view is that the 'social skills' of the child or young person with LDDs determines the quality of the friendships; it is assumed that if the child or young person has social 'deficits' or challenges then he or she will be less likely to establish long-lasting relationships with his or her peers. For this reason, social skills interventions that focus on friendship formation are frequently advocated (e.g., Humphrey, 2008; Locke et al., 2010)

A social skills-oriented approach to promote inclusion is 'Circle of Friends' (CoF). 'Circle of Friends' is:

… a systematic approach that recognises the power of the peer group – and thereby of pupil culture – to be a positive as well as constraining or exacerbating influence on individual behaviour. (Newton, Taylor, & Wilson, 1996, p. 42)

Whitaker, Barratt, Joy, Potter and Thomas (1998) adopted the approach with young people with autism who

were being included in inclusive schools in England. The evaluation process indicated a number of perceived benefits: for the target child, benefits included improved social inclusion and higher levels of peer contact, reduced anxiety and improved behaviour; for the circle members, benefits included increased levels of empathy, enhanced self-esteem and improved group participation. Parents of focus children were also positive, citing changing friendship patterns and improved sociability of their child as being among the benefits. However, Whitaker et al. (1998) report that only three out of 40 circle members referred to the target child as a friend: '… to date, the focus children remain predominantly recipients of support rather than equal participants in a mutually supportive relationship' (p. 64).

'Social stories' were first defined by Carol Gray in 1991 as a means to improving the social skills of people with autistic spectrum disorders (ASD). Social stories are short, personalized stories written for an individual, according to specified guidelines and criteria, to help them understand and behave appropriately in social situations (Gray, 2007). Although first developed for use with children and young people with ASD, they are now more widely used with individuals with a range of learning difficulties and/or disabilities. Like CoF, their use in the UK and elsewhere has gained increasing popularity in recent years, but a robust and objective evidence base for their efficacy has yet firmly to be established.

Activity participation is also assumed to promote children's friendships with peers and there is some evidence to suggest that this more 'naturalistic' contact (i.e., less contrived and/or less structured) may be effective in facilitating friendships between children and young people with and without learning difficulties and/or disabilities. A study by Roeyers (1995), for example, appears to endorse the efficacy of more naturally-occurring, less intrusive, interactions in facilitating relationship development between children. Using a peer-mediated proximity approach with children with ASD, whereby socially-competent children were placed together with children with ASD and were asked simply to play with the target children without any prior training or instruction, Roeyers (1995) found changes in the behaviour of the target children similar to those in early development, namely increases in time spent in behaviours necessary for social interaction; time spent in peer interaction; responsiveness; the frequency of initiation behaviour; longer uninterrupted interactions. In addition, it was noted that some of the gains generalized to interactions with unfamiliar peers with and without learning difficulties and/or disabilities.

By way of some contrast, however, a study by Solish et al. (2010), consistent with other similar studies (e.g., Cuckle & Wilson, 2002; Guralnick et al., 2011; Pijl & Scheepstra, 1996; Ware, Sharman, O'Connor, & Anderson, 1992), found that children with learning difficulties and/or disabilities seemed less likely spontaneously to engage in 'naturally occurring' friendship activities and when they did participate it was often primarily with adults.

Chalaye and Male (2011) describe an approach to facilitating friendships between pupils with profound and multiple learning disabilities (PMLD) and those with severe learning disabilities (SLD), utilizing Vygotsky's notion of peer tutoring and the zone of proximal development (ZPD). Employing a case study methodology, Chalaye and Male describe how Gemma (a pupil with SLD) 'scaffolds' the participation of Gary (a pupil with PMLD) in various activities e.g., exploratory play. Observation of the pair over a period of time indicates gains in the quality of Gary's participation in various activities and the apparent development of a positive relationship between the two.

Preparation for contact has also been found to be effective in promoting relationships between children and

young people with and without LDDs, as illustrated by Shevlin (2003). What became known as *Fast Friends* programmes were established in mainstream schools in Ireland. Shevlin describes a particular school's link programme which was designed to facilitate interaction between mainstream pupils and those with severe and profound learning difficulties and/or disabilities. By way of preparation, mainstream pupils viewed a video programme which depicted interactions between disabled and nondisabled pupils, and reactions to the link scheme from pupils, parents and teachers. Shevlin concludes that viewing the video programme, '… made a considerable impact on the perceptions and expectations of the pupils concerned' (p. 95): participants reported feeling 'more confident' as a result of viewing the video; there was general agreement that they had learned significant facts; and they reported a positive impact on their perceptions of people with learning difficulties and/or disabilities. Viewing the friendships established between children with learning difficulties and/or disabilities and typical peers was reported to make the greatest single impact on a sizable proportion of participants.

CONCLUDING COMMENTS

It has been noted in this chapter that friendships matter, even for those individuals with the most severe and profound learning difficulties and/or disabilities. The nature of the friendships may be different for these individuals, but they are no less valuable – or valued by the individuals themselves. However, for some children and young people, friendships – particularly those on an equal basis – remain elusive.

Friendships cannot be 'created' or manufactured, but opportunities to forge them can. In a climate of inclusion the challenge is to find ways of facilitating 'authentic' friendships between and among children and young people with and without learning difficulties and/or disabilities, whilst protecting the genuine friendships that may already exist.

ACKNOWLEDGEMENTS

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45

Finding a Voice: Families' Roles in Schools

Dianne L. Ferguson, Amy N. Hanreddy and Philip M. Ferguson

Every day, around the world, families of children with disabilities experience a wide range of settings and services meant to provide support for the challenges they face. Some seem richly supported and served; others are shunned and abandoned. Most have some services, but too few and too poorly delivered. For most families, their children begin some kind of schooling by the age of 7. However, if a child is identified as having some type of disability, then the nature and quality of that schooling can vary greatly, from total exclusion to creative and nurturing inclusion. Peter, who is 8 and has multiple disabilities, has never had any kind of formal education. As his family is poor, they felt forced to leave him with an overcrowded orphanage, filled with other children with similar disabilities and dismal prospects. Carmen, also 8 years old, has moderate intellectual disabilities and some behavioral challenges. She goes to school in a segregated, residential rehabilitation facility with other similar children. She goes long stretches of time without seeing her parents on visits. Malika and Sam, who have similar learning disabilities, attend separate special education schools designed only for such students. Their families are happy for the services, but they worry about how Malika and Sam will make friends and worry about their isolation. Born with multiple disabilities, Tomás attends an inclusive public school where he and other classmates are all assigned to general education classrooms and are taught the same things as all the other students, with some accommodations, adaptations and specialists' supports. His family is encouraged to visit school and their opinions are sought about how best to meet Tomás' needs.

Despite this tremendous range of educational experiences and settings, children like these virtually everywhere in the world do have at least one characteristic in common: for at least some part of their lives, they all have parents; they all have families. In too many cases though, the parents soon become unavailable and the children are separated from their lives with families. Peter's family feels forced to abandon their child to an orphanage. Carmen's parents would like to visit her more often, but feel that the residential school provides her with the best hope of a successful life. For most children with disabilities, however, families perform primary caregiving roles for significant amounts of time. Of course, families vary greatly in shape, size, and structure, from fairly conventional two-parent households with one or more children to many other configurations of parents, multigenerational adult members of families, and other types of shared communities. Families also have greatly varying resources of skills, possessions, and influence. It must also be factored in that 90% of children and youth from birth to age 14 live in low- or middle-income countries (World Health Organization and World Bank, 2011), exacerbating challenges faced by those families (Emerson, 2012; Robertson, Hatton, Emerson, & Yasamy, 2012). In many of these same countries, the prevalence of children and youth with more significant disabilities is higher (Maulik, Mascarenhas, Mathers, Dua, & Saxena, 2011).

In short, not only children with disabilities, but also their families face an immensely variable service

system; a system often made more challenging by relative poverty and an absence of services. Clearly, when disability becomes part of families, many consequences can follow. However, one thing nearly always does: most families, most of the time, do the best they can to love, protect, and nurture their child with a disability as a member of their family. There are exceptions, of course, and children must always be protected from abusive or neglectful caregivers. Yet, for the most part, even though disability may make new demands on the adults in the family, in the face of sometimes overwhelming challenges, the family usually prevails as a family.

This chapter offers a framework for how to use the overwhelming potential of families and schools working together to improve educational outlooks for children with disabilities. We start by reinforcing a basic change in how we frame the issues of family/school interactions. This reframing must happen by moving from emphasizing 'parent involvement' to a broader emphasis on family/school linkages or partnerships.

After briefly outlining this shift in how family/school relationships should be framed, we illustrate the most prominent implications by reviewing what families themselves are telling us about their interactions with educators and others who provide services to children with disabilities. The new emphasis demands that we first seriously listen to families' accounts of their own experiences with both schools and disability. We will draw upon parental perspectives from as many countries and representing as large a range of disabilities as possible. Given the sheer numbers of children who live in low-income countries, we will also emphasize families who deal with intellectual and other types of significant disabilities.

Finally, we will move from families talking about educators and others, to look at the rhetoric used by schools and other social systems to talk about families. Just as families create and share narratives about their interactions with professionals, so do educational systems develop narratives about what it means for families to be involved in schools and systems. Our examples here will focus more on families and schools in the west since this is where we have the most research and elaborated policies for family involvement. Nevertheless, we believe this discussion can assist countries that are currently struggling with issues of compulsory and inclusive education to avoid some of the error patterns and missteps of more developed countries. Some policy and provision paths we now know are not productive and no country needs to follow such paths when there are better ones that can be adapted to local culture and values.

A concluding section will draw upon these different narrative patterns from family accounts and school policies to discuss implications for strategies and practices that can improve partnerships between parents and teachers. We will return to the questions with which we began and explore some promising approaches for both systemic change and daily practice that make schools truly welcoming for all children with disabilities and their families.

REFRAMING THE ISSUES

This chapter is about the interaction of the two worlds where children with disabilities spend much of their daily life: schools and families. Schools have expectations of both children and their families. Families often have expectations of schools. Of course, even though these expectations vary across countries and cultures, the overarching goal remains similar. An increasing amount of agreement has emerged from both researchers and practitioners that when family members have regular discussions with school personnel about their children's learning, children achieve more, attend more regularly, and are more motivated and engaged as learners. The

question, then, must be one of how to move from goals to outcomes; from a shared aim of educational involvement to a common practice? Faced with huge variations of culture and context, are there any common patterns of approach that foster strong family/school linkages?

When children with disabilities go to school or are identified by school personnel as having some form of disability, families encounter the school's expectations about how to proceed. In many Western countries, these expectations are specifically detailed in laws and policies that are designed, on the one hand, to ensure that students with learning difficulties get what they need to succeed and achieve, while on the other hand, requiring the school to involve family members at every step so that both children and families receive access to the schooling afforded all other children and that children and families are treated fairly.

Despite expectations and commitments, many schools struggle to get parents to school meetings and events or to engage in other school-initiated activities whether they are parents of a child with or without learning needs. One reason for this is that many families feel that school is unwelcoming or intimidating, a place where 'experts' and 'specialists' 'know' and decide what their child needs. Families whose primary language is different from the dominant language at school, or who have fewer personal and economic resources, may feel shy about developing relationships with teachers for a variety of reasons, including differing cultural norms (Gutman & McLoyd, 2000; Lewis & Forman, 2002; Rao, 2000).

Definitions of family 'involvement' in their children's education vary between school personnel and families as well as across countries and cultures. These differences can be greater for some families than for others; especially those groups of families who have less social or cultural capital (Bourdieu, 1984); are culturally or linguistically different from the teachers in the school; or who have very different economic circumstances (e.g., Lareau, 2003; Lareau & Horvat, 1999; Lopez, Scribner, & Mahitivanichcha, 2001). For example, teachers most often focus on how families can support teachers' efforts through helping with homework, doing special activities at home that 'carry through' efforts of specialists, and attending meetings that focus on how families can better teach at home (e.g., Brian & Reid, 2003; Machen, Wilson, & Notar, 2005). Families might have other ideas about what 'being involved' means, that might not involve doing the work of schools at home (Lopez et al., 2001). Of course, there is usually a critical mass of families who do share teachers' understanding and definitions of involvement, enough to reinforce the definitions despite the fact that many of the school's families are left out of the dialogue.

For several decades, an increasing number of family researchers and educators have started to frame the issues involved in these daily interactions and mismatched expectations in a different way. They have moved away from the language of 'parent involvement' because the phrase symbolizes limits that have been unsuccessful in building relationships between families and school personnel (Banks & McGee, 2001; Barton, Drake, Perez, St. Louis, & George, 2004; Ferguson & Galindo, 2008; Lopez et al., 2001). These researchers and educators instead identify a need for mutual interaction and collaboration that commits both home and school to each other in light of cultural awareness and critical reflection (Abrams & Gibbs, 2002; Ferguson, 2008; Harry, Kalyanpur, & Day, 1999). Instead of the one-way-street of directing parents to be involved with schools, this new framing speaks of family/school/community linkages or partnerships and asks how the people in all of these settings can interact with each other.

At the same time, researchers have also begun to focus on the role of parental agency and documenting ways parents and other family members engage as proactive protagonists who act in response to concerns

about their children's education (e.g., Auerbach, 2007; Civil, Andrade, & Anhalt, 2000). These acts of parental agency include a family's attitudes, values, and beliefs that contribute to the construction of 'counterstories' that often illuminate barriers such as institutional racism or ableism. It is these counterstories that allow family members to both support their children's education and continue to reaffirm their own values and culture.

The new framework for family/school/community linkages, then, tries both to widen the focus and redirect the action. Traditional research on parent involvement too often limits consideration to parents (Villenas & Deyhle 1999) and creates understandings that limit participation in education to school-initiated activities (e.g., Miodrag & Hodapp, 2010; Olsson, Larsman, & Hwang, 2008; Ylvén, Björck-Åkesson, & Granlund, 2006). Such focus overlooks the broader perspective of families' interest and involvement in education in home and community contexts such as church, cultural organizations, work, and community initiatives (Baquedano-Lopez, 2000). As Barton et al. (2004) argue, most parent-involvement literature focuses on what parents do and how that fits with what the schools need to accomplish their own agenda – what they term a 'deficit mode' of thinking – especially for traditionally-disenfranchised families (e.g., Gutman & McLoyd, 2000; Moll & Greenberg, 1990). These authors encourage a new focus not just on *what* families do but also *how and why* they engage in education and how that relates to their own history and experience. Family engagement, then, must be seen in more complex terms of parental agency, relationships, and an ongoing dynamic of mediation of all stakeholders' knowledge and capital (Abrams & Gibbs, 2002; Lareau & Horvat, 1999). One of the ways to start this reframing is by rediscovering the importance of listening to how families interpret their experiences with disability.

Listening to families talk about their lives is something that many educators and other professionals do daily, of course. Families think narratively, inductively. They begin with the incidents of daily life rather the theories and abstractions of deductive reasoning. Tomás' parents talk with his teachers about support he needs in reading, not about theories of literacy instruction. However, these quotidian accounts of family life are usually ephemeral, lost to the immediacy of daily encounters. That makes it even more important to collect and analyze the accounts of family life that are told in more durable and accessible versions. Such published family narratives can provide an entry into the phenomenology of family life. It is a way of taking family voices seriously through listening to the stories those voices tell.

Finding family perspectives: Beyond professional sources

Many researchers have addressed the topic of family perspectives, and several have engaged in in-depth interviews with families (Cohen, 2011; Goodley & Tregaskis, 2006; Green, 2007). A starting point for beginning to 'hear' families more effectively might be learning from their experiences through available published works by parents, instead of researchers. Family narratives – i.e., texts that examine personal experiences that include a child with a disability – are a burgeoning response to the sense of isolation and marginalization reported by many families (Ferguson, 2009; Goddard, Lehr, & Lapadat, 2000; Green, Davis, Karshmer, March, & Straight, 2005). These texts allow a reader to gain greater understanding of the experiences of families of children with disabilities on an intimate level, and allow each author to shape his/her own message, rather than leaving the role of interpretation to a professional.

Table 45.1   Web logs written by parents of children/youth with disabilities

Blog title	Author	Beginning date	URL
Bird on the Street	Katy	October 2007–	http://birdonthestreet.com/
Chocolate Cherry Pie	Croft, J.	June 2010–March 2011	http://chocolatecherrypie.wordpress.com/
Don't Lick the Ferrets	CJ	August 2000–	http://www.dontlicktheferrets.com/
Dream Mom	Dream Mom	February 2006–	http://dreammom.blogspot.com/
Emma's Hope Book	Ariane Zurcher	April 2010–	http://emmashopebook.com/
Madie's World	Jamie	September 2008–	http://madiesblog-jamie.blogspot.com/
Melissa's Dad	Stagni, L	August 2010–May 2011	http://thespecialparent.blogspot.com/2010/08/work-impact.html
Minnow Speaks	Minnow	January 2008–	http://minnowspeaks.wordpress.com/2011/06/02/summer-vacation/
Pipecleaner Dreams.	Ashley's Mom	December 2006–	http://pipecleanerdreams.blogspot.com/
Single Dad/ Disabled Daughter	Single Dad	February 2009–	http://www.disableddaughter.com
The Socially Inappropriate Mom	Rachael A.	March 2009–	http://sociallyinappropriatemom.blogspot.com/
Squidalicious	Shannon	May 2013–	http://www.squidalicious
Unlock the Secret Voice	Kelly	March 2008–	http://unlockthesecretvoice.blogspot.com/

Writing a book is most often achieved by highly-educated parents who have the time available (aside from their parenting and professional lives) to write, in addition to a sufficient command of written language to compose a memoir that is engaging enough to both outsiders and insiders to warrant publication. Given current inequities in access to education, economic resources, and leisure time, it should not be surprising that the authors of the majority of family narratives are white and middle- to upper-class – a constraint to understanding the broad range of experiences of families (Auerbach, 2007).

As an alternative to these book formats, online web logs ('blogs') written by parents serve some of the same purposes as narratives in books, but are even more personal, written as a journal at times, with frequent sharing of daily events and photographs. Blogs frequently make connections to popular media, disability culture, and advocacy issues related to disability and education. The blog format is not difficult to navigate, and the narratives available within the 'blogging community' exhibit a wider range of backgrounds and experiences than those that are published in journal or book formats. The blog format is accessible to those with limited time, eliminates the need for a third party's evaluation of the merit of the writing, and often connects to current events, with popularity driven primarily by promotion within one's own online community.

Despite many missing voices among published narratives written by parents, these sources provide at least an initial entry into the world of families, from the families' own perspectives. To supplement the work described here, we encourage educators to seek out alternative views from families in their local communities through home visits, local advocacy groups, or inviting parents to speak to teachers. Table 45.1 samples the web logs that were reviewed for this chapter.

Many family narratives center on the early years with their child, with an emphasis on the initial point of diagnosis, learning about the disability, and learning to meet their child's needs, sometimes with an emphasis

on health issues and physical development (Dimino, 2009; Harry, 2010). Rogers and Dolva (1998) describe how they came to examine the 'smaller steps' their daughter accomplished between more traditional milestones emphasized by professionals – 'when Karina first holds up her head, and briefly looks around her, it is to our thrill and cries of delight. It means she is one step closer to exploring her world' (p. 19). This ability to appreciate what other parents might consider minor achievements is also noted by families interviewed by Goodley and Tregaskis (2006), who describe this attention to detail as ones of the benefits associated with raising their children.

In addition to adjusting to the unexpected needs of their young child, many parents begin to consider career and household adjustments, having questions about what their future may hold given new uncertainties stemming from a child's diagnosis. With the prevalence of negative and stereotypical representations of adults with disabilities in mainstream media (Safran, 1998), some families anticipate a future of dependence and isolation for their child. Cheryl Rogers (1998, in Rogers & Dolva, p. 17) describes her life 'becoming more and more involved with Karina's special needs – a far different role than my involvement with the "normal" needs of Danika … This is not what I originally planned to do with my life'.

While parents describe concerns, confusion, and frustrations experienced in early childhood, inevitably these are paired with discovery, pride, and enjoyment of their child. By the time their children reach preschool or kindergarten, many families of children whose disabilities have been identified have already learned to navigate bureaucracies, work with a range of professionals, and advocate for their children.

Other families are approached by their children's teachers with information about differences in their child's learning at some point in their child's school career, which may be a surprise or simply confirm suspicions. Understanding these learning differences may be a long process, particularly when cultural differences separate school teams and families:

> The school had great teachers but I was convinced they hadn't found the way Zion best learned. When they discussed Zion's learning problems, I encouraged them to try a new strategy and stuck my head back in the sand. (Givens, 2009 p. 294)

While some parents, like those of Carmen earlier, are grateful for special education classes and teachers who enjoy their children (Brown, 2009; Zimmerman, 2004), others, like Tomás' parents, describe advocating for integrated and inclusive settings for their children, often meeting significant resistance from school staff (Johannesen, 2011; Leone, 2010). Eudaly recounts an IEP meeting in which her IEP team refused placement in a general education classroom:

> Henry needed maximum language exposure, intellectual stimulation, and social opportunities. He needed the benefit of being surrounded by peers who were able to ask the questions he could not, and to hear the answers. He would get none of this if he was relegated to the Life Skills classroom. (Eudaly, 2009, p. 64)

Educators need to make sure that parents have enough information to make informed decisions, and then listen to families' priorities for their children when making decisions about where or how they should be taught.

In the writings by parents of adolescents, it is clear that although many of these families are advocates for their children (Brown, 2009; Dream Mom, 2012; Zimmerman, 2004), by high school their concerns about the type of program available for their child likely depends on whether they feel comfortable with the amount

of support their child receives during the day. It will be helpful for teachers to remember that families may have had negative experiences in the past that influence their current interactions with school staff.

Parents' writings about adolescence and early adulthood have a sense of urgency about impending adulthood and its new and unfamiliar challenges. If adolescence is the transition between childhood and adulthood, then special education professionals serving students with significant disabilities frequently shorten this transition by using toys, activities, and language that are inconsistent with an individual's age, educational placements in which little changes from one year to the next, and which provide minimal access to same-age peers without disabilities (Claire, 2009; Zimmerman, 2004). Ferguson and Ferguson (2010) refer to this 'unending childhood', and note that these practices may interfere with a more positive evolution of the relationship between parent and child. When childhood extends into high school, then adulthood (marked not only by age but by the end of special services provided by schools) may arrive with less intermediary time to adjust to new relationships and roles than what families of children without disabilities experience.

Of course, many families of youth with milder disabilities struggle with the challenges of impending adulthood as well. In the US, approximately 10% fewer students with learning disabilities graduate from high school compared to students without disabilities (National Center on Learning Disabilities, 2010). Difficulty with the high demands for attention, reading, and writing in college preparatory classes generates limited success for these students in high school, leading to decreased college acceptance rates (Sanford, et al., 2011). Parents in the US, however, are now three times as likely to expect their child with a learning disability to graduate from a 2-year or 4-year college course than they were 30 years ago (Newman, 2005). Parents of these students write about unmet potential for their children, who may be denied access to challenging academic courses due to gaps in basic academic skills (Ford, 2003; Weinstein, 2003). Further, families describe advocating for their child's right to accommodations in general education classes, and the potential of technology (Minnow, 2011; Weinstein, 2003). According to Minnow:

Public school, for my Dyslexic children, has been disheartening at best. At other times it has felt impossible. Prejudice toward specific teaching methods and learning strengths allowed 'teachers' to label my sons and daughter slow, lazy, unfocused, less than. I am frustrated every time I need to once again explain Dyslexia to an *educator*, justify additional time for tests and assignments, or demand they not be taught less but rather be taught differently. I am angered by a broken system I have little hope of changing. (posted June 2, 2011)

While many students with learning disabilities, like those discussed at the start of the chapter, may receive adequate supports to access their curriculum, other families may share Minnow's frustration with years spent advocating for accommodations and support for their children. While knowledgeable educators will not refuse reasonable supports, it will be important to acknowledge the frustrations that many parents have faced along the way.

Concern for where a child might fit into a larger community as an adult is a persistent theme among parents and may influence choices that families make about where a child will go to school. While the diverse placements described earlier may reflect availability of services in a given region, these placements may have also been the result of deliberate choices made by families that are consistent with their long-term vision for their children.

For many authors (Dream Mom, 2012; Zimmerman, 2004), *fitting in* is tied to being with others of similar needs. This is consistent with findings that a theme among families of children with disabilities is fear that the

child will be socially rejected (Leyser & Kirk, 2011). Ian Brown (2009) describes the angst he felt placing his pre-teen son in a group home with other young people with disabilities. Shortly after his son began to spend more time at the home, he noted, 'But it's his emotional confidence that's moving forward. Living only in our world, I'm sure, he saw his limitations everywhere. In his new vacation home, as I think of it, surrounded by peers, he's as solid as anyone' (p. 107). Other families (Ashley's Mom, 2012; Claiborne-Park, 2001; Croft, 2011) express relief when their children find acceptance among peers without disabilities. By promoting an emphasis on community membership in classrooms and schools, while addressing instances of teasing and bullying swiftly and thoughtfully, educators can promote a sense of belonging, and help to reduce families' fears of rejection for their children.

There is much more to explore as families leave schooling for adulthood but we will not take that opportunity here. Ferguson and Ferguson (2010) describe many of the issues and promises of adulthood for adults with significant disabilities in particular, including the changing nature of the relationship between parent and child that is a typical part of this phase of life.

A reader is left to wonder how well these experiences might be generalized? Given their specific and non-random nature, how might we treat the themes that emerge from our study of the family narratives? In a study by Eisenhower and Blacher (2006), the authors found that lower-income mothers (predominantly Latina in their study) were more likely to experience what the authors referred to as 'a poor sense of well-being'. This is consistent with findings by Shapiro, Monzo, Rueda, Gomez, and Blacher (2004), that Latina mothers are more likely to experience negative attitudes from the providers providing services to their children. In contrast, in their study involving British Pakistani families, Goodley (in press) found that extended family networks were associated with hope and possibility, and that parents interviewed did not report the same sense of isolation described by white British families. Both formal and informal networks of support, then, appear to make a difference in families' quality of life.

While there are cautions in how one treats these narratives – concerns to fill the gaps and hear the voices of a broader range of families – the narratives we have must be taken seriously. There needs to be an educational response to the concerns of families and that response must begin by hearing what families are saying.

School voices

If the pursuit of improved family/school linkages begins by listening seriously to the voices of families' stories, then that pursuit must quickly move to the final stage of shaping a response. However, in between the family voices and the educational responses, there needs to be consideration of how schools have tended to talk about families in the recent past. Unlike families, the voice of schools does not often take the form of stories even though individual educators interact with individual families in a context of narrative discourse. We communicate mainly through the stories we tell each other. However, schools have an unavoidably institutional voice that often dominates communication with families. This discourse comes in official pronouncements of administrators and government officials, as well as in the scholarly writing of researchers about schools and families. It is the language of policy and program; goals and outcomes; rules and procedures. It is in this language which schools most often voice their relationship with families.

The goal of inclusive and participatory community life for individuals with disabilities begins with the

experience of being included effectively in families and the immediate community as both children and youth, and even for some adults. Despite decades of laws and policies both nationally and internationally, ranging from the United Nations Convention on the Rights of the Child in 1992, the Salamanca Declaration of 1994, and the most recent Convention on the Rights of Persons with Disabilities in 2006, inclusive education has become more prominent in the legal and policy frameworks of an increasing number of countries. Many of these policy frameworks confirm and support the rights of children to grow up in families and some also require family involvement in the referral, evaluation, and planning processes for children and youth with disabilities. Increasingly, similar legal and policy frameworks targeting general education also seek specific and concrete roles for family members. Yet, it is still the case that many families do not participate in the process as partners and collaborators (Childre & Chambers, 2005; Stroggilos & Xanthacou, 2006) whether the child is designated as disabled or not. When asked, school personnel will declare the school has good parent involvement while data frequently show a much lower percentage of participation.

Schools' approaches to families can be understood in at least three different ways. All serve a specific function (or they would have withered away from disuse). Nor are they mutually exclusive. Schools often use versions of all three discourses in their descriptions of family involvement. However, each approach or discourse also presents challenges for the families they engage. Our account here is not meant so much to defend any of the three as it is to call for a clearer recognition of their separate roles and how imbalance in their use often needs to be corrected. These three 'discourses' each rely on different interpretations of what 'involvement' means for family members and what purposes and outcomes are sought.

The *rights-based approach* is best exemplified by the legal requirements and policies in many countries that describe specific roles for family members. For families with students with disabilities, there is a range of legal requirements that schools 'have to' do in order to be in compliance with the law. While these vary across countries, if there are specific laws/policies addressing the needs of students with disabilities, they most often speak to families being involved in assessments and planning at the very least. Even for families of children without disabilities there are expectations, sometimes codified by policy as in the 'parent compacts' required by schools in the United States who receive additional federal funding to provide support to low income families or other children/youth who are not performing to expectations or whose lives do not have the same kinds of resources as children in more affluent families possess.

The desired outcome of this approach is most often described as partnership between schools and families to provide a full range of supports to the child. In the case of parent compacts, families are asked to commit by signing to a list of things they will do to support their child's learning (like helping with homework, making sure students have breakfast, and are otherwise 'ready' to learn). For students with disabilities, the expectations are more specific with signatures required at key points throughout the process of assessment, labeling, and planning. Yet these 'partnerships' all too often proceed with minimal (or even no) contribution from families, or can deteriorate into a series of formalistic procedures or even adversarial relationships. Families are asked to 'sign off' on a series of documents with little or no discussion. School personnel often prepare students' IEPs before families are invited to meet resulting in a most perfunctory type of family involvement. Yet, from the school's perspective, they have met the requirements of law and policy and are 'in compliance' and can claim parent involvement.

Another problem with this rights-based approach is that, ironically, it is the very existence of laws and

policies mandating access for parents that can sometimes contribute to inequities across families. Ong-Dean (2009) describes laws and policies which give parents formal rights to advocate for the individual needs of their children as placing 'a heavy burden on parents – to inform themselves about their children's needs, to understand the complexities of special education, and, where necessary to challenge the school's diagnosis and accommodation of their children's individual disabilities' (p. 2). But when families do challenge their child's disability-related needs, what results is often confrontation and conflict. The parents and school personnel each focus on their position as the most accurate, objective and legitimate interpretation of the child's needs. The resulting conflicts can be about how a child's behavior is, or is not, disability-related from the perspectives of school personnel and parents. Other parents struggle with what is the correct diagnosis or the most appropriate accommodation.

Of course, advocating on behalf of your child is every parent's duty. The existence of laws and policies has certainly allowed many families to advocate in ways that not only change results for their own child, but for the children of others as well. It still must be noted, however, that parents of children with or without disabilities come to the task with different resources (Ong-Dean, 2009). Ong-Dean goes on the argue that some parents are 'privileged' in terms of social and economic capital while others are 'disadvantaged' in advocating for their children with schools. All must draw on their personal resources to advocate with schools, but those with more social and economic resources have more to bring to the encounter and have a better chance of prevailing. This reliance on privilege serves to become the standard that school personnel expect and can leave less privileged, or frankly disadvantaged, families facing an impossible task with less likelihood of success despite using all their available resources.

Of course, it is not just families of children with disabilities for whom issues of social and economic resources can dramatically shape their relations with schools and school personnel. Even families of children without disabilities face the same disadvantage. This may explain the disproportionate participation of family members who share the dominant culture and are more socially and economically privileged compared to those who have fewer resources, less flexible time, or who may feel unwelcomed or intimidated by school personnel.

If the rights-based approach tends to dominate practices in special needs education with some parallels in general education, the *educational benefits approach* tends to dominate practices in general education with echoes in the practices of special education especially for some groups of families that are culturally, linguistically, or ethnically disenfranchised by the dominate values of schooling. This approach is less characterized by procedural requirements and instead relies on a type of cost-benefit analysis. That is, will the activity – family conference, family science night, etc. – result in some amount of educational benefit that is 'worth' the cost (in terms of intellectual labor, staff time) of engaging in the activity in the first place? If you plan a large meeting to help families learn about the new math curriculum, for example, and only have family members of 20 of the students in a school that has 300; it may not be seen as 'worth' the time for planning, preparation of presentations, and even time that school staff have to be present.

The overriding purpose and outcomes of this approach is that schools get more family assistance in doing the job of teaching students. Helping with homework is a classic case in point. If families devote time in the evenings to helping their child complete or practice work introduced in school, there is a presumption that the child, and so the school, will benefit with more achievement, so the cost of preparing homework tasks is

'worth it'. Similarly, if forming and facilitating some kind of family organization results in families raising additional resources that will directly help teachers to prepare and deliver instruction, then it is 'worth it' to the school to have such a parent organization.

These activities or offerings are things that schools *can* do without too much cost in terms of energy, time, or resources while still obtaining benefit to the school, teacher or students in terms of improved learning achievement. This approach sees at least some families as *resources* who can help the school and extend the school agenda. Other families are seen as needing 'work' in the form of instruction and training on how to parent, help to learn the dominant language, and training on how to support the school agenda (Harry et al., 1999; Lareau, 2005; Lightfoot, 2004). Unfortunately, this last group can sometimes seem to 'cost' more than schools receive in benefit. In the end, family activities in this approach can end up being either haphazard or ritualistic. Occasional efforts to reach out to families or the occasional family training event are examples of the first, while parent/teacher conferences and 'family math (or science, or …) nights' can all too often be stale examples of the second.

These first two discourses about the point of family involvement in schools certainly dominate in most schools although, of course, to varying degrees depending on other contextual factors. There is a third approach, although it is overtly addressed by a relatively small number of schools in the United States (e.g., Lopez et al., 2001). In other countries, particularly those where teachers teach a group of children/youth for multiple years, there may be more explicit use of this discursive approach. The *social relations/social justice approach* requires school personnel to first understand issues embedded in our cultural, socioeconomic and other forms of human diversity and then use this understanding to 'filter' all efforts toward families in order to better reach and engage *all* of those families. Making sure that all school communications (not just those required by law and policy) are translated into a family's first language is one obvious example of this kind of outreach and honoring of students' families (Ferguson & Galindo, 2008). Another example occurs when school personnel realize that not all activities with families have to take place on school campuses. When families' schedules are taken into account, meeting in local neighborhoods can sometimes offer opportunities for school personnel to develop more awareness of the families' lives outside of the school campus (e.g., Ferguson, 2008).

Building teachers' capacity to understand, appreciate, and take into account issues of differing social/cultural capital, family lifestyles, socioeconomic advantages and needs, as well as families' 'funds of knowledge' (Gonzalez, Moll, & Amanti, 2005; Moll & Greenberg, 1990) is required to really employ a social relations/social justice approach in such a way that truly inclusive and democratic school communities that successfully engage *all* families in students' learning and achievement, albeit in varying ways. Yet most teachers do not always receive adequate preparation in how these dimensions of diversity can affect the learning of children and youth or, more importantly, how much this lack of information can color and even control teachers' perspectives and judgments about both their students and families.

Even when used as a rhetorical style, this approach is often described by schools as too complex and time-consuming to really drive the educational response to families on a daily basis. Even schools that make good faith efforts to do the type of capacity-building among faculty and staff that this approach suggests find it difficult to maintain such efforts over time or expand to accommodate new populations of families as student demographics change. A study of schools in two states in the US (Ferguson & Galindo, 2008) found that

when teachers and families formed 'family/school linkage' teams to focus on reaching out to, and being welcoming of, all families, they often found the most effective activities were relationship-building ones where school personnel went out to families and got to know them in their own family contexts and communities. Teachers who stay with the same group of pupils for multiple years certainly have a better chance of developing these kinds of relationships, but may not also develop the diversity lenses needed to best engage and build relationships with those who are culturally, linguistically, socioeconomically different from themselves, or who hold different values about learning and schooling.

As mentioned earlier, each of these 'school voices' has served a role in educational responses to family voices. Often, the school voices, or discourses, are so jumbled together that clear communication of goals and values gets lost in a mismatch of rhetoric and practice. The frustration that we found earlier in the family narratives is often borne in the perception of failed promises by the professionals to whom those families have turned for help. At the same time, each rhetorical strand has merit and application. The recognition of parental rights to participation was a legitimate response to generations of exclusion and dismissal of family involvement of any kind other than passive acquiescence. It is equally true that effective collaboration between home and school has yielded dramatic educational benefits for many children when teachers and parents in isolation had less success. Finally, the emerging discourse of social relations has helped schools move to a more systemic appreciation of the challenges faced by the families they serve, and spurred the search for equally systemic answers.

What we are left with is a more practical challenge. How can family voices and school discourse be more authentically responsive with each other? Once schools have taken the family perspective seriously, and once they have analyzed the consistency and assumptions of their own rhetorical responses to that family perspective, the question remains about how this might play out in practice. What guiding principles and creative strategies might finally strengthen the linkages between home and school?

Toward relational alternatives

Here, we want to move from an analysis of the issues and challenges, to consider implications for improved practice. We have tried to suggest many such strategies along the way, but will summarize our suggestions here. Much can be done within schools now to improve the roles available to families, even in special education. However, the structural obstacles that remain in most special and general education settings make durable and systemic change toward improved family/school collaboration exceedingly difficult. For us, the ultimate source of the changes needed to allow truly constructive engagement with families – including an enhanced role for the discourse of social justice – must come from a core set of underlying principles that guide a flexible set of strategies. What we provide here is not meant as a recipe or model as much as an evolving set of actions that move from concept to application in ways that will change according to context.

Based on our analysis of the experiences of families of children with disabilities and how schools respond to those families, as well as a generation or more of Disability Studies research that has emerged since the disability-rights movement began in the 1970s, we believe there are three key principles to consider. We argue that these principles should be part of any overarching framework for shaping the efforts of educators who are committed to authentic partnership with families: (1) a relational approach to disability; (2) a commitment to

cultural reciprocity in all family/school interactions; and, (3) a commitment to embed responses to families of children with disabilities within the general education structure rather than recreate specialized versions of those responses. Each of these can only be described briefly here, but each seems a crucial element in improving family/school collaboration.

Relational approach to disability   The interdisciplinary field of Disability Studies has emerged over the past 3 decades as the academic offspring of the Disability Rights and Parent Advocacy movements (Ferguson & Nusbaum, 2012). A central feature of that interdisciplinary approach has been the emphasis on a 'social model' of disability to redress the excesses of the 'medical' or 'deficit' model that had long dominated special education and other disability-related fields. All too briefly, the social model made a distinction between the physiological *impairment* of an individual and the socially constructed *disability* that gives meaning and connotation to that impairment (see Albrecht, Seelman, & Bury, 2001, and Davis, 2013, for elaboration of the core concepts of Disability Studies and the social model). The implication of the social model is that the meaning of a child's disability does not reside so much within the child as in the relationship between the child and society. A deficit-based approach to disability emphasizes tragedy and the hope for cure creates a relational meaning that can distort all attempts to provide support and services to the child who is viewed as fundamentally flawed. A 'diversity-based' approach to disability emphasizes difference rather than defect and creates a context for inclusion and celebration rather than isolation and pity.

Cultural reciprocity.   As we have noted throughout this chapter, there is a fundamental need to recognize the cultural assumptions that infuse our schools with (often unintentional) bias along lines of race, class, and ethnicity. Cultural assumptions are hardest to see by those in the dominant culture. Just as disability is socially constructed, so is school culture shaped by the forces of race, class and gender. The presence of a disability in a family does not make race or class irrelevant. Rather, it should heighten our sensitivity to culturally embedded assumptions that shape our response to those families. Harry and colleagues (1999) have termed this sensitivity a 'posture of cultural reciprocity' (p. 7).

Embedded responses.   Until recently, there has been a knee-jerk reaction within special education to respond to perceived problems with what has been called a pattern of 'professional preciousness'. Professional preciousness refers to the tendency of specialists to define a problem so as to require the services of similarly-trained specialists for the solution (Sarason, 1972). This tendency emerges in special education when we recreate specialized services rather than embed support within general education settings. In terms of family relationships, 'embedded responses' means that family/school linkages should be pursued with generic strategies that include the families of all children in a school, turning to specialized interventions only as a last resort.

THREE STRATEGIC APPROACHES TO FAMILY/SCHOOL LINKAGES

Principles without practice, of course, leave their own kind of empty rhetoric. The question for anyone interested in improving the partnership of schools and families in support of children with disabilities is how to develop strategies that will put the principles just described into action. However, there is a balance needed here as well. Based on our work with families and in schools, we are chary of detailed prescriptions and

checklists that seem to offer a recipe for implementing change. Our experience suggests that flexible strategies are needed that allow local context and culture to shape specific actions and initiatives (Ferguson & Galindo, 2008). We conclude, then, by returning to our scenarios and seeing what strategic responses might build on the core principles of family/school linkages without claiming to know what specific actions might implement those strategies most effectively.

Family to family connections

Remember Peter and his family. Faced with challenges of poverty and non-existent services, Peter's family felt forced to leave him in an overcrowded orphanage. Similarly, Carmen likely misses her family as much as they miss her, but their own limited resources do not permit more frequent contact. It is not the disability that actually disrupts these families, so much as the lack of services and supports that also honor the family and are organized to help keep it intact. What is the response in situations such as this where is no family/school linkage to improve upon, because there are no – or only far-removed – educational services available? Our work suggests that one place to start is to try and break through the isolation that many families feel. Making connections with other families does not mean that services magically appear overnight, but they can create collective advocacy and a sense of possibility where individual pessimism dominated. The history of disability and special education is filled with examples where families discovered common needs and created alternatives where none had previously existed. So, our first strategy in improving family/school linkages is not to assume that schools are the only way to begin. Connecting families to each other may prove just as powerful.

Family to school connections

The families of Malika and Sam face different issues. In this case, there are local education programs available but they are segregated and isolating. However, there is some implication that families would be nervous about 'giving up' the segregated program with which they are mostly pleased for something more inclusive, less isolating, but perhaps less intensive in its supports. How do schools work with families to move to more inclusive approaches while listening closely to their fears about safety, social stigma, and less effective instruction? For us, this is where the principles of relational approaches to disability and embedded responses to linkages come into play. The strategies need to be both collective and individual. Allaying parental fears about including their children in general education settings can often be addressed most effectively by including the parents themselves in the life and culture of the school. The connection here needs to be with schools, not with that separate part of the school known as special education.

The relational approach also suggests a pattern of individual responses to specific families that encourage a shared definition of disability as a matter of diversity more than deficit. Exploring ways to reshape the way support is embedded in general education settings can change the dialogue from one of how best to remediate educational deficits to how best to create inclusive settings for teaching and learning with all types of diverse students. The focus is not so much on 'fixing' Malika and Sam, but connecting with their families to create environments for success in and out of school.

Family to community connections

In many ways, the situation for Tomás and his family seems ideal. Tomás attends an inclusive public school and enjoys specialized supports as needed, but incorporated into the general educational setting. His family is welcomed by the school and their opinions are encouraged. The issue here is not so much about repairing or improving unsuccessful family/school relations; it is rather to look for ways to continue to expand and elaborate on that partnership. In this case, we often encourage schools to look for ways to strengthen families' connections to their communities. In part, this returns us to the family/family connections already mentioned. It is a search for strategies that define family involvement as more than involvement 'in school' to 'involvement with their community'. How can the schools encourage Tomás' parents to expand on the relationships that Tomás enjoys with his classmates in school to the larger community within which Tomás will ultimately live his life? How can the school become an effective intermediary between families and the larger world outside the classroom?

CONCLUSION

These are complex issues and each country and community must engage and resolve them in its own way. However, we are optimistic that taking family voices seriously and authentically responding to those voices with value-based strategies will allow schools around the world to develop strong and expansive family/school/community linkages. It all begins with taking family voices seriously. We remain optimistic that such linkages are emerging every day. Immense problems remain, of course. However, the visibility and growth of family stories about living with a disability show that the first step is being taken. The voices of families on behalf of their children are becoming harder and harder to ignore. It is now the time for schools to respond to what those voices are saying.

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46

Inter-agency Working and Special Education: Beyond 'Virtuous' Ideas of Partnership Towards Alternative Frameworks for Collaborative Work with Children

Liz Todd

Inter-agency working has been a prime focus of attention in the field of special education for many years (Campbell 1996; Daniels, Edwards, Engeström, Gallagher, & Ludvigsen, 2010; Mittler & McConachie 1983). Schools in many countries have not always been able to cater adequately for all children without additional provision or different school placement, both often subject to some form of multi-disciplinary process. More recently, the loss of access to life chances for young people and the view that solutions lie in a holistic approach supported by a range of different professionals has drawn attention to the manner in which practitioners work together. The underlying assumption has been that different kinds of expertise are required to 'disentangle' educational failure or needs and that these reside in people of different professional roles with a range of complex practices. The working together of practitioners who have different professional roles, backgrounds or are employed in different agencies (health, education, social care) with a variety of professional cultures is what we refer to as inter-agency working. That inter-agency working has presented substantial challenges has led to repeated efforts to find ways to make such working more effective.

This chapter charts the growth of inter-agency working from a time before we spoke in such terms and thought instead of individuals carrying out separate roles, side-by-side, to the integration and co-location of many services. Alongside a growing call for agencies to work together, inter-agency working has been seen as problematic – and calls have been made for professionals to work *better* together. There have been recurrent investigations into the difficulties and issues of working together, with development being repeatedly understood in terms of *better working relationships* between practitioners or an improvement in *partnership*. This has been the focus of systemic analysis of inter-agency working. It has led in general terms to managerial solutions looking, for example, at mutual understanding of roles. Such solutions have not been without good effect but, overall, problems have proved hard to shift. More importantly, an emphasis on working better together has led to a lack of attention to a number of key areas. These include: the goals and impact of inter-agency working; the professional learning needed to evolve effective services; and the involvement of parents and children in decision-making. Aiming for better partnership also underplays the technologies of power of professional practices: in working together, professionals do not simply 'help' or 'treat' people, but regulate actions and create social identities. Other approaches, including activity theory, social capital and complexity theory, offer a way out of the notion of 'interagency working as a virtuous solution' (Warmington, Daniels, Edwards, Brown, Leadbetter, Martin & Middleton, 2007, p. 4).

This chapter will look first at the three phases of professionals working together before examining the failure of inter-agency working to provide for the involvement of parents and children in decision-making in a

section that considers 'partnership with parents and children'. Next, the failure to acknowledge adequately the politics of practice and provision is discussed in a section on 'Professional practices: technologies of power'. The final section looks at alternatives to, a 'rethinking' of the 'virtuous partnership' model of inter-agency working, ones that amongst other things focus on goals and professional learning. Social capital theory and activity theory are shown to provide more useful tools with which to re-examine the ways professionals work together.

First, a note about terminology. Several decades of policy about improving the ways practitioners work together has generated a plethora of terms, including inter-agency, multi-agency, inter-professional and partnership (Lloyd, Stead, & Kendrick, 2001; Warmington, et al., 2007). For some commentators on this area, these terms have particular meanings that explain the kind of joint working, but they are often used interchangeably. This review will not be concerned with arriving at a particular definition. This review will use the terms inter-agency and multi-agency interchangeably, but will make specific meanings clear when they are of importance.

The policy context that provides the lens through which to view the areas considered in this review is that of the UK and, more specifically, England. Overall policy changes and the main issues raised are pertinent in other international contexts. It is also worth noting that this chapter draws on research contexts that involve children deemed vulnerable in a range of different ways as well as being understood to have special educational needs.

FROM CO-OPERATION BETWEEN SEPARATE PROFESSIONALS TO INTEGRATED WORKING

Inter-agency working has changed immeasurably over the past few decades. It is possible to identify three general phases: co-operation between separate professionals; multi-professional working; and integrated services.

It is worth noting the time before the prime concern was with how professionals work together. This is the first phase, a process of *co-operation between separate professionals* and was mostly pre-Warnock and the Education Act, 1981. It was characterized by decisions about educational provision for children with special needs, largely made by a small collection of individual practitioners, that is, medical officers, educational psychologists and head teachers, operating a process of assessment and placement. Although this obviously involved more than one professional, it was not an inter-agency process in the sense we speak of today. Given the evidence of critical writers of the time, the need for professionals to work better together to implement the 1981 Act for children with special educational needs did not yet seem on the agenda (Tomlinson, 1986). That agencies would need to work together was certainly heralded and had featured in important policy in both education (the Plowden inquiry into primary education, DES, 1967) and health (HMSO, 1976).

The second phase, in which a growing number of professionals would start to work together in a range of models of *multi-professional working*, was announced by the 1981 Education Act. The Act replaced the categories of handicap with the concept of special needs and forced professionals to work together to focus on and negotiate understandings of need and related resources (Fulcher, 1989; Russell, 1992). There were some multi-agency teams such as child guidance and child and adolescent mental health services (CAMHS). However, a multi-professional model of working consisted in practitioners from more-or-less single

professional groups (i.e., educational psychologists, education welfare officers, behaviour support workers, social workers) who came together to work jointly on cases or as part of a growing number of multi-agency groups. An example of the latter is the teams formed to consider the special educational needs of particular groups such as pre-school children.

The main theme of this phase was the need for 'partnership' working, although the precise nature of this was not clearly understood in practice. It included concern with how to enable practitioners to work better together to share information, reach decisions and discuss systems and provisions. I have previously characterized this time in terms of a jigsaw approach to the individual, 'seeing the person as separate parts all with differing needs to be met from the contrasting expertise, skills and knowledges of people from different professional backgrounds' (Todd, 2010, p. 67).

A strong impetus to improve inter-agency working has come from recurrent enquiries into child abuse (Butler-Sloss, 1988; House of Commons Health Committee, 2003; The Lord Laming, 2009). Partnership here referred to knowledge about children and families, and about professional actions to be shared between professionals so that the appropriate support could be given. This kind of partnership was assumed, in the important Children Act 1989, to go a long way towards securing child protection. Partnership was also strongly highlighted in the Code of Practice for assessing special educational needs (DfES, 2001), citing partnership both between professionals and between professionals and parents. Recognition of how difficult special needs assessment could be for parents led to parent partnership projects in many local authorities that provided volunteers to support parents though the process (Kerr, Sutherland, & Wilson, 1994; Mencap, 1995; Wolfendale, 2002).

Attention to the systems in which professionals work led to much research into what needs to happen to facilitate joint working and a mountain of recommendations (Atkinson, Wilkin, Stott, & Kinder, 2001; Easen, Atkins, & Dyson, 2000; Kendrick, 1995; Lloyd et al., 2001; Stead, Lloyd, & Kendrick, 2004; Townsley, Abbott, & Watson, 2004). In one notable example, Roaf (2002, p. 87) summarized the good inter-agency practice as involving:

- Formal commitment and support from senior management and from political to practitioner level;
- Formal and regular inter-agency meetings to discuss ethical issues, changes in legislation and practice, gaps in provision and information-sharing at all levels to develop short-and long-term strategies;
- Common work practices in relation to legislation, referral/assessment, joint vocabulary, agreed definitions, procedures and outcomes;
- Common agreement of client group and collective ownership of the problems, leading to early intervention;
- Mechanisms for exchange of confidential information;
- A framework for collecting data and statistical information across all agencies that can inform all practice, including 'ethnic' monitoring;
- Monitoring and evaluation of services in relation to inter-agency work;
- Joint training in order to understand each other's professional role.

Much attention was devoted within and across services to how to improve multi-agency working – how to work better in partnership. Whilst success was documented and celebrated (Wolfendale, 2002), it was as if the holy grail of partnership working was forever just out of reach.

Integration of services at an institutional level characterizes the third phase. At the turn of the millennium, some councils were starting to make more far-reaching adjustments to the way they organized and structured services for children. This referred to the radical merging of previously separate areas of council work, such as

education and social work, and the assimilation of funding streams. Reorganization started to include the co-location of practitioners into multi-agency teams. These systemic and institutional barriers were thought to be impeding inter-agency working.

The 'Every Child Matters' (ECM) agenda in England (DfES, 2003) gave the development of integrated services more impetus by broadening the aims of all services (including schools) to consider a range of goals for all children: being healthy; staying safe; enjoying and achieving; making a positive contribution; and economic wellbeing. The national initiative of extended schools and services brought a diverse range of professionals into many schools. The rationale for this was a widening role for schools beyond the classroom. In order to tackle the problems of educational disadvantage, some schools saw the need to take on a more explicit role that involved families and the community, not just pupils. ECM (the every child matters agenda) supported the development of extended services through the policy requirement to ensure that in England every child 'has the chance to fulfill their potential by reducing levels of educational failure, ill health, substance abuse and neglect, crime and anti-social behaviour among children and young people' (HMSO, 2003, p. 11).

Since the start of the millennium, there has been a significant increase in the number of inter-agency teams and in the development of new practitioner roles within them across children's services. This has included many different areas of assessment and provision in special educational needs. In order to illustrate the variety of teams in terms of composition, structure and focus, and drawing on Rose (2011), there is a network for the education of looked-after children with a co-ordinator at the hub. This team includes: social worker; community support worker; nurse (looked-after children); advisory teacher; residential childcare worker; education link worker; and educational development worker. There is also a co-located behaviour support team (BST) with full- and part-time members that plan service delivery together. This consists of: BST manager; advisory teachers; primary mental health workers; behaviour support workers; and early years support worker. Finally, there is a loose network with a BST at the hub in which different members occasionally plan and deliver together. This includes: parenting co-ordinator; educational psychologist (BST); educational psychologist (local authority); clinical psychologist; art gallery education officers; learning and mentor lead behaviour professional; children's centre manager; pupil support officer for education improvement partnership; BST parent support worker.

The increase in numbers of teams found a similar increase in different models of working. The focus of how to solve the problem of inter-agency working has largely been on organizational forms, strategies and routines. Robinson, Atkinson and Downing (2008, p. vii) looked at 35 papers of models and theories of multi-agency working, integration and collaboration and the review found the following dimensions:

- The extent of integration: the 'stage' or depth of the collaborative activity in integrated services.
- The integration of structures: layers of an organization's functioning, for example, governance and strategic levels, and frontline operational service delivery levels.
- The integration of processes: the ordering of work activities across time and place, at different organizational levels.
- The reach of integration: the extent to which partnerships in integrated services reach out to include diverse agencies.

ECM was a strong national initiative that emphasized the improvement of joint working between professionals. It aimed to address several aspects of the multi-professional delivery of services that were

repeatedly identified as problematic in the literature. This included: 'swift and easy' referral of children and families to the services they needed; the new role of 'lead professional' to oversee case management so that clients experienced a more seamless service; a common assessment framework (CAF) to ensure that children were not lost in the system; and organizing the team of professionals 'around the child' rather than around existing professional functions (later, in 'think family', the focus became the family). Similar policy changes that combined transformations in organizational structures with the integration of teams have come about in many other international contexts, and are in evidence in the No Child Left Behind Act of 2002 (US Congress, 2002) in the USA, in Scotland's Getting it Right for Every Child (Scottish Executive, 2005) and a Fair Future for Our Children (Welsh Assembly Government, 2005) in Wales.

Where integrated working has involved co-location of services, it might have taken practitioners away from their 'silos' in structural terms, but it has not always done so in terms of other aspects of working practices. Co-location has hastened the need to develop new and unfamiliar working patterns. Inter-agency working was to become easier if colleagues were in the same building if not the same room, according to the theory, but this did not in fact necessarily mean that people knew how to work together. With co-location, questions arise about leadership and management as practitioners accustomed to being managed by someone with the same professional background are now managed by someone from a different professional group. Similar questions arise about supervision. Once working side-by-side, the gaps in mutual understanding of roles and ways of working may be more discernible and become obstructive to the delivery of services. In other words, whilst some of the problems of multi-agency working identified by Roaf (2002) and others were indeed being addressed in the move to integrated services, many continued to be work in progress. One of the main problems was the failure of professionals to involve parents or children as co-collaborators rather than clients. It is to this omission that I turn to next, before looking at other possible ways to conceptualize the working together of professionals.

PARTNERSHIP WITH PARENTS AND CHILDREN

Analyses of the problems of inter-agency working have largely not included any consideration of the relationships between professionals and those with whom they work, principally parents and children. That the *ways professionals work together*, and *parent partnership* are informed by largely separate research literatures underlines the discrete ways in which they have been regarded. I look at parent partnership first. The relationships between professionals and parents have been characterized by multiple co-existing and often conflicting roles (professional aide, child advocate, partner, problem) (Bastiani, 1987). There is a tension with the professional, legal and bureaucratic frameworks that has assessment controlled by time-limits and overshadowed by the possibility of recourse to tribunals (Riddell, Adler, Mordaunt, & Farmakopoulou, 2000). Many parents have consistently found it difficult to interact with different agencies in the negotiation of help and support for children with special educational needs (Armstrong, 1995; Clavering, Goodley, & McLaughlin, 2007b; Duncan, 2003; Galloway, Armstrong, & Tomlinson, 1994; Hodge & Runswick-Cole, 2008; Munn, 1993; Sandow, 1994). The claim for partnership with parents has proved largely elusive. Clavering et al. (2007b), in their study of the interactions between parents and professionals studying 39 families, found that:

There has been a tendency to introduce managerial and administrative solutions to these problems. This has involved: the call for 'seamless', joined-up services (Dessent, 1996; Harnett, Harker, Franklin & Olle, 2003; Roaf & Lloyd, 1995), so that parents only need to tell their story once; the provision of a key worker or a lead professional to co-ordinate support (Greco & Sloper, 2004); and the enabling of an advocate for the parent to give support in contributing to aspects of assessments (Sloper, 1999).

Solutions have largely failed to materialize. Key workers and parent advocates have proved effective for parents when they have been well-resourced, but provision has been sparse. More crucially, the problems experienced by parents are unlikely to be remedied simply by improving partnership between parents and professionals. Parents who negotiate the machinery surrounding special needs and provisions are not a homogenous group and are differentiated in terms of the power they hold to be heard and to have influence. Several decades ago, Tomlinson (1981) distinguished between parents that have been 'sent for and told' about their children's difficulties from those who have been 'consulted'. Parents of a child with severe learning difficulties (Sandow, Stafford, & Stafford, 1987, p. 25) are likely to have a very different relationship with professionals from those with a child who has a reading difficulty first discussed when the child is 6 years old. Parents also vary in the possibility of drawing upon the resources of pressure groups. There is evidence that the existence of powerful pressure groups behind certain types of special educational need has led to advantages in terms of securing scarce educational resources (Riddell, Brown, & Duffield, 1994, p. 342). Reay (2004) has shown the failure of parent partnership as a policy for all. Parent partnership inevitably benefits the already advantaged middle-class parents who are more knowledgeable about how to engage with schools than those more disadvantaged parents who are less able to engage with 'hard to reach schools' (Crozier & Davies, 2007, p. 295). Partnership in the processes of special needs assessment has the potential to disempower as parents might be co-opted via 'effective relationships' into the views of professionals (Armstrong, 1995; Galloway, 1985).

Analysis of the relationship between parents and professionals suggests the need to reassess whether 'partnership' is a helpful metaphor and to reconsider what parents and professionals together bring to the challenges of special educational needs provisions. The analysis of Clavering et al. (2007a, p. 8), talking to parents of disabled babies, suggests a very different relationship between parents and professionals:

professionals and parents work best together when they view their roles as constantly shifting and developing. Rather than viewing parents (or professionals) as ready made individuals fit for the purpose of parents, enabling professionals accept and support the uncertainties and questions of parenting and care rather than writing them off as 'in denial' or ignorant. Consequently, in this dynamic process parents adopt roles of the *extended carer* including advocate for their child; activist for parents of disabled children; administrator of medical interventions and family lynchpin.

In other words, a process of 'active becoming' is needed for both parents and professionals, an openness and facility to develop new possibilities in relationships and ways of working (Todd, 2010).

I turn now to the question of the relationship between children and multi-professional teams. Over the past few decades, there has been a general change in the position of young people to having a more active role in their own lives (Christensen & Prout, 2005; Prout, 2005). Professionals working to make provision for special

educational needs have engaged with this change by endeavouring to involve children more in assessment. This has most often been expressed in the provision of some kind of tool, such as a questionnaire, for the child to provide views on their abilities, needs or schooling (Harding & Atkinson, 2009; Roller, 1998). However, this has been little more than tokenism in terms of any greater influence of the young person on decisions that involve them. In any general sense, children still have neither been put in a position to understand the role of the professionals to whom they have been sent, nor the implications of outcomes of professional actions, let alone been able to influence the roles and actions (Armstrong, 1995; Galloway et al., 1994; Todd, 2007). With some exceptions (Hobbs, 2005; Lingard, 2002), children with special educational needs maintain a position of the 'absent special guest' (Todd, 2007). Practices of assessment and provision used by professionals have generally viewed children as objects of professional gaze and this has not made it easy for children's agency to be active in the process and to have any influence. It is not a case of working better together, communicating more effectively, or even developing better systems of assessment to include child views: it is the politics of professional practice that need to be more fully considered.

PROFESSIONAL PRACTICES: TECHNOLOGIES OF POWER

The political nature of arrangements for making professional decisions and judgements about children and apportioning educational provision, what is often referred to as 'special' rather than usual or normal arrangements, is often ignored. These are the technologies of power of professional practice. As education was extended to all, systems evolved for the purpose of deciding who went to mainstream school and who not, and to work out what to do with those excluded. Tomlinson, for example, charts the disturbing history of the category of educational subnormality (1981).

The lack of a clear definition of 'special need' post-1981 and the absence of engagement with the politics of need was a vacuum into which stepped a massive expanded number and range of professionals eager to respond to statutory demands to measure and describe the different aspects of a child. This refers, of course, to the pre-requisite psychological, medical and educational advice for a decision about whether to create a statement of special educational needs. The different reports giving alternative perspectives on special needs seemed, according to Corbett (1993), more an expression of:

professional ownership, in which medical and educational definitions classify what can be special and who can claim a need. (p. 549)

So the number and range of professional roles deemed necessary to apportion 'special education' increased, and similarly practices and terms were developed by which children were categorized. Multi-disciplinary assessment can be reconceptualized as an arena for negotiations of professional ownership, as demonstrated by Billington (1996, p. 43):

In order to seize each new opportunity, for example in being able to contribute to definitions of children who are 'at risk', educational psychologists are brought into competition with other professionals in health and social services.

Professional practices that many think of as helpful in order to cater for children's needs also play an important role in creating the identities of children. As a result of the practices of 'assessment', children are not merely described or catered for. Labels are provided, even if this is no more than 'one of the people who

leaves the room to go to Mrs so-and-so' and, whether welcome or not, have consequences for identity (Billington, 2000). Such identities are not always in keeping with the intentions of young people themselves, and this prescription of identity does not always serve them well (Allen, 1999). Clavering et al. (2007a, p. 10) found that the most common identity is of 'having a problem', or some other kind of 'deficit', with the assumption that the professional is able to define and cater in some way for the problem:

> Many parents said that the assessment procedures for disability living allowance or statements of educational need framed their children in negative, lacking, and exaggerated ways.

An emphasis on working better together has underplayed the technologies of power of professional practices. Those goals of inter-agency working that have more to do with professional needs have been largely ignored, in the focus on the needs of the child. In other words, good practice systemic solutions seem to under-emphasize the political nature of the arrangements for allocating educational provision to children. Such politics is part and parcel of professional practice, with roots in the history of services, structures and tools. Whatever the approach to making effective the ways that professionals work with each other, it will need to take full account of practice as politics.

RETHINKING VIRTUOUS PARTNERSHIP

Over the past decade, we have seen the emergence of inter-agency working as central to educational provision for children with special educational needs, leading to the increasing integration of services. What has characterized recurrent attempts to address the problems in inter-agency working has been the improvement of *working relationships between professionals* and *partnership* as an ideal. This has gone a long way to give professionals in teams a way to develop working relationships in some effective services (Anning, Cottrell, Frost, Green, & Robinson, 2006; Bagley & Ackerley, 2006; Edwards et al., 2006; Edwards, Daniels, Gallagher, Leadbetter, & Warmington, 2009). However, over the past decade, a view has emerged that what is seen as problems in inter-agency working may point to a need for a more fundamental reconceptualization of the domain we refer to as inter-agency working, going beyond thinking about partnership.

In discussions of how to improve inter-agency working, there has been a lack of focus on the goals of professional work (Rose, 2011), on what working together is likely to achieve and on evidence of outcomes. It seems likely that the emphasis on partnership as a 'virtuous solution' (Warmington et al., 2007, p. 4), the 'pretty story of joined-up working' (Forbes & Watson, 2012), has obscured thinking about goals and outcomes. Evidence for the impact of integrated working on outcomes for users is scarce for children. Indeed, there is some evidence to the contrary (Anning et al., 2006, p. 9; Hughes, 2006), and there is little to show that educational provision for children with special educational needs was markedly improved by the increase in integrated working following the ECM (Todd, 2010). This chapter has already considered evidence to suggest that the active involvement of parents and children in decision-making is unlikely to be accomplished by focusing on partnership alone.

In the past decade, there has emerged a different critique of inter-agency working, drawing not on ideas of partnership but on a range of theoretical frameworks including complexity theory, post-structuralism, collective preferences, social capital theory and activity theory. These offer alternative means of improving

collaboration between professionals, parents and children in order to evolve educational provision. They are also approaches that are cognizant of the politics of practice.

Glenny & Roaf (2008) and Forbes & Watson (2012) use complexity theory in 'mak(ing) sense of the fluid, uncertain and less predictable kinds of professional relationships' (2012, p.2). What complexity theory leads to is, for Glenny and Roaf (2008), a focus on feedback loops in successful organizational contexts that ensures that good-quality information is shared by all and effective communication is encouraged to enable difficulties to be resolved. Rose (2011) shows the potential for collective preferences or team reasoning to influence construction and pursuit of inter-professional goals. Capper, Hanson and Huilman (1993) show how a post-structuralist analysis of community-based inter-agency working shows what seems on the surface to be empowerment is moreover the maintenance of the status quo.

Social capital theory is proving a useful lens through which to consider changes in working patterns and changes at the boundaries of professional working (Bagley, 2011; Forbes & Watson, 2012). Bonding and bridging capital provides a language to use to look at what happens between professionals, children and parents. This helps to make sense of the impact on inter-agency settings of policy changes (Bagley, 2011). Social capital has often been used to demonstrate client deficits and how these are addressed by professional actions. However, social capital theory does also provide a way to conceptualize the resources and skills of parents and children that are often ignored in professional contexts. Such resources can be articulated in terms of the different kinds of capital brought by parents and children to collaborations (Bagley & Ackerley, 2006; Gewirtz, Dickson, Power, Halpin, & Whitty, 2005).

Activity theory literature draws on the work of Engeström (2010); (Engeström, Miettinen, & Punamäki, 1999) and emphasizes the object of the activity system in distributive work settings. The object is what individuals or groups are seeking to change or act upon. Activity theory looks at what all those involved (professionals, parents, children) are working on, and their perceptions of outcomes. Practices are understood as 'knowledge-laden and emotionally freighted sites of purposeful and expert activity' (Edwards, 2011, p. 33). Warmington et al. (2007) explain how activity theory conceptualizes practice:

> Engeström (2010) sees object-orientated joint practice as the unit of analysis for activity theory not individual actions; and sees instability, internal tensions and contradictions as the drivers of change and development in professional and organizational practice … object-orientated activity is always characterized by ambiguity, surprise, sense-making and potential for change. (p. 23)

Activity theory allows tensions to be brought into the discussion of how to develop services. The focus is on how professionals learn as they are involved in these tensions, what tools are used, and how new practices are formed in this learning. Edwards explains the emphasis on complex solutions to complex problems (2011, p. 33):

> Activity theory literature emphasises the importance of focusing on the object of the activity system in collaborative, distributed work settings. In other words, its principal concern is with identifying what professionals are working on and their perceptions of the ends that are to be achieved. The object serves as a centring and integrating device in complex, multi-voiced settings; it becomes a way of conceptually framing diffuse professional groups, individual agents and complex practices and services.

An activity system is the nexus of multiple points of view traditions and interests. The idea in activity theory that objects contain motives is an example of how this approach enables exploration of the politics of practice.

For example, the politically-laden object such as a child's route to provision, where the child is assessed and given the label ADHD, is very different from contrasting perspectives. Such an object may be interpreted alternatively by different professionals who would then want to act on it in dissimilar ways (Edwards et al., 2009, p. 196).

Inter-agency working conjures neatly formed teams. However, Warmington et al. (2007) show that emergent forms of practice seem to rely on 'knotworking'. This refers to constantly changing arrangements of people combining to undertake tasks of a relatively brief duration. Knotworking provides a concept that might help to explain the appearance of effective multi-agency provisions for vulnerable children in extended schools in the 'zone-in-between' schools and statutory services. Dyson, Farrell, Kerr and Mearns (2009) observed that these 'spaces' seemed to create the possibility for different professionals to work in a flexible way at the point of need. Activity theory provides a way to explore knotworking and consider whether professional development can prepare for it.

Activity theory uses the idea of expansive learning to focus on the kinds of learning that occur when work practices and organizations are undergoing rapid change and workers are creating new knowledge and new ways of working. Edwards looks at how common knowledge is built, using relational expertise, in interactions at the points where the boundaries of practices intersect. Responsive collaboration with other professionals calls for relational agency that makes it possible to work with others to 'expand understandings of the work problem as, in activity theory terms, an "object of activity"' is defined and to align 'one's own responses to the newly enhanced interpretations with the responses being made by the other professionals while acting on the expanded object' (Edwards, 2011, p. 34).

In summary, activity theory is proving fruitful in helping 'to identify and conceptualise the key features of learning and practice in work settings in which a range of agencies and otherwise loosely connected professionals are required to collaborate with young people and their families to innovate and develop forms of provision over extended periods of time' (Warmington et al., 2007, p. 4; see also Daniels et al., 2010).

CONCLUSION

The working arrangements of professionals involved in making decisions about special educational needs have changed immeasurably over the past three decades, with an increase in the number and range of professional roles, a move to integrated working and the co-location of professionals in inter-agency teams. Whether such changes in inter-agency working may be regarded as effective is open to debate, since outcomes have rarely been evaluated. There is still a long way to go in fully involving parents and children in decision-making and even further in involving them in the evolution of services and provisions. Efforts to improve inter-agency working have, by and large, chased the illusive ideal of improved working arrangements and better partnership. As a result, engagement with the goals of inter-agency working and with the politics of practice have been under-acknowledged.

Activity theory and social capital theory both enable conceptualizations of inter-agency working with much to offer. Both promise creative ways to move forward a participation agenda with children and parents. And both offer tools, a language and a framework as a means to collaborate with young people and their families to innovate and develop forms of provision. These are not the only approaches, as Clark (2010) shows how

participatory methods emphasizing visual and verbal communication can support new relationships between professionals and between professionals and young children in the development of educational environments.

Professionals involved in special needs provision are, arguably, to some degree agents of the maintenance of whatever provisions are available for children with special needs, be that a more segregated or a more inclusive educational system. It can therefore be argued that, given the absence of political critique from the use of the partnership metaphor, a focus on how to help professionals to work better together may draw attention away from a more critical consideration of how professional actions contribute to these different kinds of educational inclusions or exclusions. Similarly obscured is the relationship between poverty, socioeconomic position and special educational needs, and thus action at a macro rather than micro level to address special educational needs (Blackburn, Spencer, & Read, 2010; Sloper, 1999; Tomlinson, 1982). There is a need, therefore, for inter-agency work to operate at the macro level, bringing activity theory and social capital theory to bear. Furthermore, as we move further into a decreasing role for public services with more marketization of services, the need has never been greater for alternative frameworks for the development of more collaborative and effective educational provision for children.

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Future Directions for Research and Practice

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Education Without Condescension: Philosophy, Personhood and Cognitive Disability

Ruth Cigman

INTRODUCTION

A disturbing argument has recently taken hold in some philosophical circles. It concerns cognitively disabled human beings, particularly those with profound disabilities, otherwise known as learners with profound and multiple learning difficulties (PMLD). The argument is about their moral status and it forms part of a wider argument about the moral status of livings beings generally. The problem, as some philosophers see it (see, for example, McMahan, 2002; Parfit, 1984; Singer, 1993; Tooley, 2001), is to determine who has full moral status (in the sense of having a right to unconditional respect, being an equal member of the moral community, being a 'person', etc.) and who does not. Our recent history shows how we can go wrong about this. Sexism and racism are prejudices against some human beings based on irrelevant characteristics like gender and skin colour. It is said by the philosophers in question that certain Enlightenment philosophers (Kant, Locke) provided a rational alternative: they based moral status on the capacities for practical rationality and self-consciousness, which enable one to imagine oneself at a future time and plan rationally ahead. To say that full moral status belongs to all humans whatever their capacities, and to withhold this from nonhuman animals that appear to possess the relevant capacities, is according to the argument, 'speciesist'. It favours our own species over others on irrational grounds.

The disturbing implication is that cognitively able nonhumans have higher moral status than cognitively disabled humans. Or rather: they have higher status depending on the *levels* of cognition in question. I call this the rational denigration argument (RDA). Eva Feder Kittay, a philosopher and mother of a 'profoundly to severely' cognitively disabled daughter, has described it as 'odious and offensive' (Kittay, 2005), and my aim in this chapter is to endorse this view and explain where and why the RDA goes badly wrong. It is especially offensive to parents, teachers, sisters, brothers, friends; people who are intimately involved with members of this group. One may respond by accusing its proponents of engaging in arid academic debates. No parent, teacher or policy-maker is likely to be swayed by it, so why does it matter?

It matters for several reasons. The RDA evokes our terrible recent history of abusing cognitively disabled people: not only the Nazis, who famously did so, but our own practice of banishing them to institutions where they received little or no education and were as far as possible out of sight, out of mind. We have come a long way since those days, but not as far as we should; there is still stigma attached to this group. Advanced by respectable liberal professors in leading universities – people who do not even bear the stain of extreme right wing politics – the RDA potentially, if not actually, reinforces this stigma. Philosophy has always worn a badge of authority, and one cannot be complacent about its conclusions. It is impossible to trace its lines of influence in detail, but *that* it has the power to influence how people think should not be doubted.

This chapter opposes the RDA on many levels. I do not believe that moral status inheres in attributes like rationality and self-consciousness; indeed, I believe that this idea betrays a host of misconceptions about what it is to be human and to think, feel and relate to others as a human being. The RDA, in my view, is philosophy that has seriously lost its bearings. The philosopher Wittgenstein was alert to this tendency of his discipline when he wrote: 'A philosophical problem has the form: I do not know my way about' (1953, para. 123). He taught us a great deal about what happens when we 'get lost' in this way, and I shall draw on his ideas (and those of Wittgenstein scholar Cora Diamond) in this chapter.

The chapter has – inescapably, I believe – a dual theme. It is about what it means to embrace cognitively disabled persons as full and equal members of the human community, entitled to unconditional respect like any other. It is also about the nature of thinking and philosophizing, particularly the way in which this can lead us astray. The RDA opens up questions about the latter, but my concern goes deeper than the RDA. Even more worrying, I believe, is the potential gap between the commitment to enlightened views about moral equality and subtle or implicit condescension. A person may *sincerely believe* that someone is her moral equal, though her behaviour betrays a more complex story of unease, doubt or condescension. The RDA can become entangled with this complex story even if one explicitly and sincerely rejects the beliefs it represents. To embrace cognitively disabled persons as full members of the human community is not merely to *believe* that one should do this. It is to relate to cognitively disabled persons in ways that may be betrayed by behaviour, eye contact, gesture, and much more. I am concerned, in short, with attitudes at the deepest level, since this is where, in my view, moral equality resides. To talk about this requires a style of thinking and philosophizing that goes beyond the usual philosophical conventions of argument and counter-argument.

I want to start with a story that illustrates the gap between explicit beliefs and deeper feelings or attitudes about moral status. This is philosopher Raimond Gaita's account of a nun visiting a psychiatric hospital where he worked as a youthful volunteer. Gaita was struck by the debased condition of the patients; they had no 'grounds for self-respect insofar as we connect that with self-esteem', they soiled themselves, were washed down with long mops like elephants at a zoo, and had long since been abandoned by their families. The hospital staff spoke earnestly about their *inalienable dignity*, and Gaita was impressed by this talk until a nun turned up at the hospital one day. She talked to the patients and 'everything in her demeanour … contrasted with and showed up those noble psychiatrists. She showed that they were, despite their best effort, condescending, as I too had been' (Gaita, 2002, pp. 17–18).

Cognitively disabled people are not normally debased and abandoned like the patients in Gaita's story. However, the story alerts us to a threat: a harm to which they are permanently vulnerable. This is subtle and unacknowledged condescension from those who sincerely profess to believe in their moral equality. The RDA reinforces this tendency and needs to be countered, but the chapter also explores the condescending attitude itself. 'Disability', says Kittay (2011), 'is in search of an ethics that will … articulate the harms faced by people with disabilities'. I believe she is right, and my aim is to explore such harms at different levels of explicitness and visibility. Most people 'talk the talk' of moral equality these days. It is on show in most social and political settings, whereas subtle condescension – which may be no less ubiquitous – can easily escape our notice.

I hope to illuminate the harm of being subtly condescended to by exploring three broad areas of concern. The first is the need in our ethical lives to engage thoughtfully and sensitively with human beings and their stories. We need to learn from the people we know and also from other people's stories, like Gaita's story

about the nun. I shall call this *learning from examples* or *learning from stories*, and its importance will be one of the main themes of this chapter. By definition, subtle condescension can easily be missed; it may escape our attention, our *accurate* reports or descriptions of what is going on, precisely because it is so subtle. To address this, we may need to go beyond what one might call the 'standard requirements' of philosophy, everyday thinking and empirical research. We may need to *home in* on examples in ways that are rarely done in academic or policy contexts. This is not to say that academic articles or policy documents neglect examples altogether; case histories, video evidence etc. are frequently used. However their purpose is often to illustrate a pedagogical technique (how to 'get results' with challenging learners) or convey an upbeat message (how to make challenging learners happy). What I call 'homing in on examples' requires a deeper engagement.

Certain things can happen when we engage deeply with examples. One of these is that we may find the 'reality in question' difficult to deal with, hard to acknowledge or think about. We may feel uncomfortable, for example, about the tension between our philosophical beliefs about moral equality, and our sense of a person's profound limitations. This needs to be addressed; to refuse to do so is to be prey to unacknowledged, subtle condescension. I shall develop this idea in connection with Cora Diamond's concept of the difficulty of reality. What it means to find reality difficult, and how we should engage with rather than deflect the difficulty, is a question she has richly illuminated. This, I will argue, is the second requirement of the ethic we seek: it must acknowledge the difficulty of reality that can arise from engagement with examples.

Finally, I shall propose that the deepest human relation of all is the relation of cherishing. A great deal has been written about the caring relation that ties us to other human beings, but I think the idea of cherishing is richer. It is because we cherish our young and think of them as *properly* cherished by those who care for them, and it is because we regard older, vulnerable and dependent human beings in the same light, that we find the RDA 'odious and offensive'. If we think in ways that expose subtle condescension, we shall be in a position to think about the nature of cherishing, which is wholly opposed to condescension. From here, I suggest, we shall be in a position to think sensitively about educational practice and policy for this group of individuals.

LEARNING FROM STORIES

What we learn from Gaita's story about the nun is that there can be subtle, barely perceptible differences between people's behaviour and attitudes that mark the *great* difference between helping and harming, respecting and condescending. It is not to be assumed that all the staff at the hospital where Gaita worked grasped this difference as he did. The story *marks a distinction* that is conceptually and ethically crucial, though the reality in which the story is based is (we are given to believe) extremely subtle. Fine discriminations can expose divergent ethical universes.

Now I would like to consider another story:

Albert is a second grade student with cerebral palsy, seizures and significant cognitive disabilities … During many of the one-to-one sessions, he closes his eyes, puts his head on his chest, or just says 'NO'.

Mrs Sweeney knows that time delay is very effective at teaching students with significant cognitive disabilities sight words … However … she is required to teach more than sight words. Furthermore, she needs to teach the links to the standard course of study … Mrs Sweeney looked for some suggestions [and as a result] … was excited to be able to teach a larger range of content to multiple students … she reported higher levels of student participation and a higher frequency of correct answers from many students, including Albert. (Cooper-Duffy, Szedia, &

What do we learn from this? On one level, not much, but our ignorance may be interesting for it seems clear that we are meant to learn (or be prepared to learn when we read the chapter that follows) something important. We are meant to learn something about technique; that the 'right technique' brings about 'higher levels of student participation', more 'correct answers'. The teacher was excited, for she wanted these results.

There is nothing wrong with this *per se*; I would suggest, however, that it opens up many questions, and indeed that the story should trouble us. What is worrying is the fact that we learn nothing at all about why Albert says 'No'. Nor, apparently, are we expected to wonder about this. We are expected to agree that Albert's initial non-compliance is a problem, and the story tells us that the problem can be solved. The article to which this story is a preface explores the solution in detail.

In the Albert story, possible subtle distinctions are intimated but not explored. What happened in Albert's one-to-one sessions? What dramas might have been enacted there? Was Albert by any chance resisting a teacher whose mind was set on results? The writer *twice* indicates that there is pressure to get results. *She is required to teach … she needs to teach …* We have no idea, nor are we expected to enquire, how these demands suited or fail to suit Albert.

My question is whether the teacher in the Albert story resembled the psychiatrists in the nun story. Mrs Sweeney would almost certainly have defended Albert's right to unconditional respect, but did she exemplify this? Did she make the 'effort at identification' that, according to philosopher Bernard Williams (1973, p. 236), is an aspect of respect? Did she try, as John Vorhaus (2006, p. 314) says, developing this idea, to 'look at the world from the point of view' of this profoundly disabled child? Did she wonder 'what it is like for [him] to lead [his] life' (Vorhaus, 2006)?

My concern is that an allegiance to certain ways of thinking may impede our ability or willingness to raise such questions. I have no idea what happened between Mrs Sweeny and Albert; I am merely suggesting that the story should prompt concerns. These need to be explored in the ways indicated earlier: through attention to what it means to engage deeply with examples, through the idea of the difficulty of reality and the idea of cherishing. I shall consider these in turn.

TWO STYLES OF THINKING

Philosopher Avishai Margalit has distinguished between two styles of thinking and philosophizing:

> There are two styles of philosophers – illustrators and explicators. Illustrators trust, first and foremost, striking examples, in contrast with explicators, who trust, first and foremost, definitions and general principles. Explicators may use examples, but their examples are stylised and are more like those that appear after i.e. than the genuine examples that follow e.g. The illustrators, for their part, run the risk of using examples as little more than anecdotes that serve little philosophical purpose. The dangers of each style are clear; yet, I believe that style in philosophy matters greatly. When examples are apt, they are illuminations, not just didactic illustrations. When definitions are good, they are explications, not mere stipulations. I see merit in both styles … (Margalit, 2002, p. ix)

Another way to put this is to say that e.g. philosophers, unlike i.e. philosophers, see everyday or literary examples as *ineliminable reference points* in their thinking. They *trust* striking examples, as Margalit says, and I would go further and suggest that they *distrust* the kind of philosophy that regards examples as sometimes interesting, sometimes evocative, but essentially optional. I.e. philosophers may and often do discuss examples,

but their purposes are different. They use examples to stimulate our imaginations or strengthen an argument that they believe to stand independently of the example. Their examples are 'stylized' rather than 'genuine', for they see these as incidental to their main purposes, which are to explicate, to define, to carry arguments forward logically from premises to conclusions.

Peter Singer is a proponent of the RDA and an example of an i.e. philosopher. (Indeed the RDA *exemplifies* thinking in the i.e. style, for its arguments are built on the definition and explication of personhood.) He has acquired a reputation as a philosopher who unflinchingly follows a rational path towards what sometimes turn out to be unpleasant conclusions. One of these conclusions is that infants, like profoundly cognitively disabled adults, have low moral status because they lack rationality and self-consciousness. One could express this, in Singer's terms, by saying: *Let's talk about infants, i.e., very young humans who lack rationality and self-consciousness…*

It is important, when thinking like this, to set aside any feelings we might have about infant Anna or infant Leo or any other infant in our lives:

> In thinking about this matter we should put aside feelings based on the small, helpless, and – sometimes – cute appearance of human infants. To think that the lives of infants are of special value because infants are small and cute is on a par with thinking that the baby seal, with its soft white fur coat and large round eyes, deserves greater protection than a gorilla, who lacks these attributes. (Singer, 1993, p. 170)[1]

In other words, the infants in our lives should not distract us when 'thinking about this matter'. We should concentrate exclusively on their relevant attributes, or rather, their non-attributes. It is infants' lack of rationality and self-consciousness that should persuade us that they lack moral status, rather than the smallness, helplessness or cuteness that provoke tender feelings when we hold them or look into their cots.

So too with profoundly cognitively disabled adults:

> Infants are adorable, but not dignified, and the same is true of older and larger human beings who remain at the mental level of an infant. You don't acquire dignity just by being born a member of the species Homo sapiens. (Singer, 2012)

This passage carelessly suggests that the author finds profoundly cognitively disabled adults 'adorable', which seems obviously untrue. On the contrary, one gets the impression, reading Singer's writings, that there is not only rational denigration but what I have called subtle condescension going on. *Why* do we not acquire dignity by being born a member of the species Homo sapiens? Could the answer be partially an emotional one, a sense of the *indignity* associated with requiring high levels of support?

This, of course, is not admitted. Rather, Singer's argument is drawn from philosopher John Locke's definition of a person. A person, says Locke, is a 'thinking intelligent being that has reason and reflection and can consider itself as itself, the same thinking thing, in different times and places' (Locke, 2004, p. 115). This definition underpins the philosophical debate about moral status, which also draws on Kant's idea that moral worth, dignity, the entitlement to unconditional respect, are grounded in rational capacities (Locke's 'reason and reflection') rather than humanity. A great many words have been devoted to the explication of this trans-species moral concept. But the question remains: why should this concept be accepted? Why should we build arguments on *this* foundation, in preference to a style of thinking that engages much more closely with our experiences of human beings?

Margalit suggests that there is 'merit in both styles', i.e. and e.g. He notes that both have dangers – the

examples of i.e. philosophers are 'stylized' rather than 'genuine', and e.g. philosophers sometimes retreat into worthless anecdote – but in combination, he implies, these dangers can be minimized, and the styles should be seen as complementary rather than mutually exclusive. I believe that he is right, and that the problem here is that i.e. thinkers are suspicious of, and seek to avoid, the e.g. style, which they see as dangerously personal and emotional. The e.g. style can, however, embody insights that are urgently needed if we are to discriminate between subtly different attitudes, such as (genuine) respect and (subtle) condescension.

In her many writings on this topic, Eva Feder Kittay has attacked the RDA in both the i.e. and e.g. styles. In the former, she argues that moral status is conferred not by intrinsic attributes, but relationally, by species membership. A species, like a family, confers moral ties; it is to family members that we look at times of crisis for support, care and loyalty, and we do this not only as independent beings who are capable of rationality and self-consciousness, but as beings who are sometimes vulnerable and dependent. Liberal theories of justice tend to ground respect and dignity in independence (presupposing rationality and self-consciousness), which is seen as the 'norm of human functioning' (Kittay, 2011, p. 52). From this perspective, dependence is a debasing condition, a proper occasion for condescension. With some other prominent philosophers (see, for example, MacIntyre, 2001), Kittay argues that, on the contrary, dependence is not merely a condition of disease and disability, but an aspect of every human life. We were all dependent as infants, and most of us will be this way later in life, not to mention during periods of sickness or vulnerability at other times. Indeed, argues Kittay (2011, p. 52): '… the ability to … receive care [when vulnerable or dependent] is a source of dignity no less than the capacity for reason'.

To emphasize our ties as human beings, particularly within family and other groups, is to acknowledge the respect we owe to people in both independent and dependent states. We do not, if we can help it, withdraw respect from beloved family members when brain injury or dementia cause cognitive decline. We continue, on the whole, to see them as 'worthier', more deserving of our devotion (not to mention our time and our finances), than our pets or other animals. Jeff McMahan is a philosopher who sees this humanist 'bias' as 'speciesist':

> [An] effect of our partiality for members of our own species is a tendency to decreased sensitivity to lives and wellbeing of those sentient beings that are not members of our species … One can discern an analogous phenomenon in the case of nationalism … the powerful sense of collective identity within a nation is often achieved by contrasting an idealised conception of a national character with caricatures of other nations, whose members are regarded as less important or worthy … (McMahan, 2002, p. 221)

According to this view, we idealize the cognitively disabled simply because they are members of our own species. The effect is 'decreased sensitivity' towards, and a tendency to caricature, nonhuman animals, rather as 'pernicious nationalists' caricature other nations.

Kittay rejects this vehemently. She is appalled by the idea that, if people are 'solicitous towards a human despite her subpar cognitive capacities, then they are complicitous in a great instrumental harm' (Kittay, 2005, p. 116). This, she notes, applies not only to caring relatives like herself, but to the multitude of 'caretakers and therapists, no less than taxpayers' (Kittay, 2005, p. 116). She attacks McMahan on several fronts; unfortunately, there is no space to examine all her arguments here, but anyone who is interested in this topic would be well-advised to do so. Of particular interest to us here is a turn in the argument when Kittay talks about our need for members of a moral community not only to refrain from harming others, but to increase

the good in the world:

> The Nazi doctor murderers … employed rationality of a highly developed sort … yet the contributions of these capacities to sound moral agency were nil, since the acts they enabled caused harm and surely did nothing to increase the good in the world.

> Contrast these with an individual whose rational capacities are difficult to determine because she lacks speech but who has the capacity to enjoy life, to share her joy through her smiles and laughter, and to bring joy to all those whose lives she touches – an individual who, through her warmth, her serene and harmonious spirit, and her infectious love of life enriches the lives of others and who has never acted maliciously or tried to harm anyone. (Kittay, 2005, pp. 122–123)

Kittay is talking about her own cognitively disabled adult daughter, Sesha. Part of the interest of Kittay's work is that she writes not only as a philosopher, but as a mother with bitter experience of the denigration of cognitively disabled people. This leads her to think in the e.g. as well as the i.e. style, for she is acutely aware of omissions and misunderstandings arising from lack of acquaintance with people like her daughter.

She turns the tables on McMahan, accusing him of caricaturing the profoundly cognitively disabled, when he has accused humanists like herself of caricaturing nonhuman animals. In response to his claims that the profoundly cognitively disabled 'not only lack self-consciousness but are almost entirely unresponsive to their environment' and are 'incapable … of deep personal and social relations, creativity and achievement' (quoted by Kittay, 2005, p. 126), Kittay takes the discussion on to a more descriptive and more emotional level. She tells us that music is Sesha's life and Beethoven is her 'best friend'. Listening to Beethoven's Emperor Concerto, 'She gazes out of the window enthralled, occasionally turning to us with a twinkle in her eye when she anticipates some really good parts' (Kittay, 2005, p. 127). Sesha, she says, is 'enormously responsive, forming deep personal relationships with her family and long-standing caregivers and friendly relations with her therapists and teachers, more distant relatives, and our friends'. In the group home where Sesha lives, Kittay tells us, 'All her roommates share her real appreciation of music'. She describes in some detail, and in a way that is unusual in philosophy, Billie (who 'dances in his wheelchair to rock music'), and Matt and Heather (who 'love to sing along, and although they are incapable of speaking … vocalise in just the right pitch') (Kittay, 2005, p. 127).

What are we to make of this? On one level, McMahan has simply failed to do his homework, failed to grasp the empirical dimensions of this topic. He has *mis-characterized* the individuals of whom he writes. Does this matter? Not if one ties moral status to a highly abstract interpretation of cognitive capacity. By definition, profoundly cognitively disabled people have cognitive limitations, although Kittay is careful to distinguish between the possession of cognitive capacities and the ability to *express* such capacities in words. She flags up our uncertainty about what her daughter's capacities (and those of others like her) really are, and says that she is often surprised by unexpected indications of understanding.

Even if we accept that we know a great deal about cognitive incapacities through nonverbal behaviour, this shift towards the *example* provided by Sesha prompts some fundamental questions. Kittay's rationale is that philosophy needs a tether:

> I want to … think … about what it means to mother a severely disabled child, all the while continuing to use my own experiences with my daughter as a tether that prevents me from wandering away from the lived reality. (Kittay, 1999, p. 162)

The temptation to 'wander away from the lived reality' is certainly an occupational hazard for philosophers,

but Kittay does not explore the full import of this idea. Why do philosophers 'wander away'? Is the reality in question too personal or too difficult to engage with? Is it, perhaps, hard to *write* about?

The idea that moral status is determined by the possession of certain attributes allows us to evaluate the worth of living beings on the basis of no more than a headline account of their cognitive capacities and incapacities. What emerges from Kittay's work is an issue not only about styles of thinking, but also about styles of writing. This is touched on by philosopher Bernard Williams at the beginning of *Ethics and the Limits of Philosophy*, a book-length essay on philosophy's great question, how should one live? Williams notes:

> … how large a claim [a philosopher] is making if he says that a particular kind of abstract, argumentative writing should be worth serious attention when these large questions are at issue. There are other books that bear on the question [how one should live] – almost all books, come to that, which are any good and which are concerned with human life at all. (Williams, 1985, p. 1)

Williams is recommending what we might call a quasi-literary style of philosophy, in which we are able to learn from a variety of texts – fictional, poetic, historical, testimonial – when we raise philosophical questions. This is e.g. philosophy; Williams is raising the possibility of what Diamond calls 'learning from examples', as distinct from the goal of 'establishing what is true', which underpins i.e. philosophy. His point is not that we should avoid 'abstract, argumentative writing' (i.e., thinking); it is that we should not assume that this is the only or best route to an understanding of human life. We should be receptive to non-philosophical kinds of writing ('good books' about human life), and by implication, I think, should be prepared sometimes to struggle to articulate difficult truths. The i.e. style of thinking discourages this; it is committed to a fairly arid, impersonal style of writing. Kittay breaks through this boundary from time to time in her writing about her daughter, and I would argue that what is betrayed by her more imaginative uses of language is engagement with the phenomenon that Diamond aptly describes as the 'difficulty of reality'.

THE DIFFICULTY OF REALITY[2]

Diamond's article 'The difficult of reality and the difficulty of philosophy' opens with a declaration of 'concern … with a range of phenomena, which … I shall suggest by some examples' (Diamond, 2008, p. 43) The first example, a poem by Ted Hughes, describes the experience of looking at a photo of six smiling young men. They are 'profoundly, fully alive', but it is 1914, and within 6 months they will all be dead. Hughes writes:

> To regard this photograph might well dement,

> Such contradictory permanent horrors here

These are the horrors of life juxtaposed with death, or *death within life*: 'the impossibility of anyone's being more alive than these smiling men, nothing's being more dead' (Diamond, 2008, p. 44).[3] What interests Diamond about this is 'the experience of the mind's not being able to encompass something which it encounters. It is capable of making one go mad to try, to bring together in thought what cannot be thought' (Diamond, 2008, p. 44). The *reality* is difficult; it is 'resistant to our thinking', 'painful in its inexplicability' (Diamond, 2008, pp. 45–46).

Another example is a philosophical story by J. M. Coetzee, two chapters of which are published with responses from leading philosophers, including Peter Singer, in a book called *The Lives of Animals*. The

central character, Elizabeth Costello, is an elderly novelist who is invited to give an endowed lecture. Instead of speaking about literature as her hosts expect, she gives an anguished talk about animals. In fact, the talk has a dual theme. First, it is about the 'horrors' of the lives and deaths of animals in what she calls production facilities ('I hesitate to call them farms'). She does her audience the 'honour of skipping a recital' of these, merely reminding them of what she believes they know, and saying that these horrors are 'at the centre of this lecture' (Coetzee, 1999, p. 19). They are, in other words, the *example* that the lecture seeks to illuminate. Second, the story is about the difficulty of thinking and speaking about this topic, which is a 'difficulty of philosophy'. Costello struggles with words; she wants to 'find a way of speaking … that will bring enlightenment … [rather than dividing] us into the righteous and the sinners' (p. 22).

Poised between her horror about the suffering of animals and her struggle to find a way to talk about this, Costello suffers, as Diamond says, from 'a terrible rawness of nerves'. She is 'haunted by the horror of what we do to animals' (Diamond, 2008, p. 46). What strikes Diamond is that none of the philosophical commentators understand Coetzee's story this way. They see it as a kind of polemic, advancing arguments ('not very good ones', according to Singer) about the 'issue' of animal rights. They miss the 'reality', the 'example', from which Coetzee wants us to learn: that of a 'wounded woman' evoking the horrific suffering of animals in our 'production facilities'. They *deflect* their 'appreciation of something appalling'[4] by engaging in arguments, explicating, defining. This is philosophy in the i.e. style, though Diamond does not use this language; she talks rather of the tendency to deflect difficult realities into 'issues' approached through 'arguments'.[5]

I believe that Kittay attests to this kind of difficulty – she *shows* it through personal testimony – in her writings about her daughter. What haunts Kittay is not Sesha's current suffering (Sesha is 'joyful'); it is the threat of indignity and future suffering when those who love her are no longer around:

> My daughter's disabilities always threaten her with a life of diminished dignity. It is only with care, and care of the highest quality, that she can be included, loved, and allowed to live a joyful and dignified life. (Kittay, 2011, p. 52)

This threat is real. The Nazi history is all too recent, and I have suggested that, even when this history is understood and abhorred, there remains the possibility of subtle forms of condescension. 'Care of the highest quality' is by no means guaranteed; indeed Kittay suggests at one point that caring 'wonderfully' for a person like Sesha requires 'a talent as precious as an artist's' (Kittay, 2011, p. 156). It may be a common failure of parents to assume that their children require exquisite care; yet people like Sesha are more vulnerable to condescension, gross and subtle, than most. Offensive as it is to compare them (as Singer and others do) to nonhuman animals, there is one respect in which the comparison is just. Profoundly cognitively disabled people, like nonhuman animals, cannot speak for themselves. The 'horror' of how they may be (and doubtless sometimes are) condescended to is therefore likely to haunt a parent, bring a 'terrible rawness of nerves'.

The gap between parents' and strangers' perceptions of cognitively disabled people may bring complementary 'difficulties of reality'. The parent struggles with the stranger's denigration or condescension, and the stranger struggles to see how the parent can cherish such a 'limited' human being. Kittay quotes a heart-breaking passage by the parent of a profoundly cognitively disabled child, which illustrates this gap:

> (we) liked him [the potential new babysitter] immediately, and his enthusiasm seemed to equal ours – until he met Jody. At that moment his

jaw dropped; mumbling something about checking his afternoon schedule, he hastened out of the door … I suddenly found myself looking at Jody through adolescent eyes. I saw not the cheerful, handsome seven year old whom I care for every day, but a seriously deviant little boy who drools and makes strange, uninterpretable noises.

(Kittay, 2011, p. 168) Kittay comments sympathetically: 'I don't want to see Sesha as others see her. I want them to see her as I see her' (2011, p. 168). Another example is Kittay's account of what happened when her mother learned of Sesha's disabilities:

… she *insisted*, with conviction, with sure-footed rightness that I *had* to put this child out of my life. It made me crazy. I could not comprehend it. Only the images and stories of the Holocaust could reclaim for me my mother and her love. (Kittay, 1999, p. 152)

This is a woman struggling with a difficulty of reality: in this case the 'unthinkable' clash between the idea of 'putting away' her beloved child, and love of the woman who had 'taught me what it was to be a mother', demanding that she do precisely this.

Kittay's passionate wish to ensure her daughter's dignity exposes fault lines in philosophy to which I have drawn attention. These are difficulties about how to think, how to write, how to articulate perceptions and concerns that may be deeply personally affecting. Kittay is not shy of the i.e. style, but she obviously finds it confining at times, especially when her daughter's dignity is at stake. Then she shifts into the e.g. mode, *telling us* about her daughter, and she encounters difficulties that are characteristic of this mode. One of these is the difficulty of articulating one's thoughts: precisely the difficulty that troubled Costello. This appears when Kittay tries to apply criteria of personhood to her daughter:

Sesha's life lacks many things that make my life rich—including reading and writing philosophy. But does this mean that her time-relative interests are less strong my own? Or that she lacks strong prudential unity relations? Or that she lacks a strong egoistic concern for the future? [6]

I don't know how to answer these questions, not only because my daughter does not speak but also because I am not sure I truly understand what these concepts mean or what their significance ultimately is. (Kittay, 2005, p. 128)

This is a point to which e.g. thinking tends to lead. We are so preoccupied with *the example*, the reality to which we are trying to do justice, that our words can appear flat and disappointing. Kittay is perplexed by words that she herself has used to good argumentative effect; they appear, when she puts pressure on them to say something 'ultimately significant' about her daughter, not up to the job. This is a 'difficulty of philosophy', and indeed of *any* attempt to think and write seriously about this topic.

THE IDEA OF CHERISHING

E.g. philosophy, exemplified by Wittgenstein, Diamond, Cavell and others, is a style of thinking that seeks to 'get us back on track' when we have, as Wittgenstein, suggests, lost our way. One of the ways it does this is by reminding us of ordinary things – what Diamond calls 'quite central facts' – that we know but tend to ignore or forget. We forget, *for example*, that:

…[we] *do not eat our dead*, even when they have died in automobile accidents or been struck by lightening, and their flesh might be first-class. We do not eat them; or if we do, it is a matter of extreme need, or some special ritual—and even in cases of obvious extreme need, there is very great reluctance. (Diamond, 1996, p. 321)

This alerts us to the *kind* of importance we attach to human beings. It is not that we do not see nonhuman animals as important; rather, we tend not to attach the same *kind* of importance to them as we do to human beings, human bodies, human lives and deaths. This is not supposed to be a knock-down argument in the i.e. style; it is a fact from which we may learn.

I want to draw attention to two further 'central facts' about human life. The first is that we *do not attempt to protect nonhumans from death and suffering caused by other nonhumans*. We accept the predatorial tendencies of nonhuman species, indeed welcome these insofar as they are expressions of the kind of nature that we wish to protect. When human beings engage comparably in 'ethnic cleansing', interference is at least a serious option. This is a moral differentiation of species to which we are committed.

The second is this: *we cherish our young*. The feelings and attitudes of cherishing are *essentially* non-condescending; they include a sense not only of the value of the object (which can be surpassed by another), but of the *extraordinary* value of the object. I cannot cherish you if I feel that you are valuable, but that I am (or she or he is) somehow more so. We cherish our young and, if we permit ourselves to do so, we cherish those who are developmentally young but physically more mature. To cherish is to be acutely conscious of the fragility and vulnerability of the object, and this can apply both to people who are vulnerable by any lights (e.g., because they are disabled), and to those who are vulnerable simply by virtue of being human.[7] The cherished object *as such* is seen as vulnerable to loss, harm or extinction, and we who cherish them are also vulnerable (terrifyingly at times), for our wellbeing is experienced as inseparable from theirs.

Cherishing is an intimate attitude. Typically but not exclusively, it develops in conditions of physical and emotional proximity, and is intensified by practical care. We can possibly love a dead person; we can certainly cherish her memory. But we can no longer cherish the person herself, for the conditions do not support cherishing. To cherish is to absorb (almost greedily) the details: the soft skin of the infant, the quality of a person's breath, the delicate brushstrokes of the painting. This aspect of cherishing has inspired a great deal of poetry, good and bad, yet cherishing is not (or not simply) a state of delusion, for to cherish is to reject caricatures of the cherished one, and seek to bring the real person, the cherished object, into view. It is to attempt to engage with, rather than deflect, difficulties of reality, insofar as the dignity or wellbeing of the cherished person appears to require this. And it is to demand, not that others cherish too, but that they see her as *properly* cherished and do not debase her.

There is nothing more tormenting than to see a cherished person debased, and the person who cherishes is likely to be highly sensitive to this. This sensitivity *may* be excessive, but it may also alert us something crucial that we have missed. We may, like the psychiatrists in Gaita's story, have missed the subtle difference between explicit, philosophically-inspired respect, and veiled condescension. *We* are deceived, but the person who cherishes is haunted by this difference.

CONCLUSION

We have come a long way from the days of Nazi eugenics and widespread public disparagement of cognitively disabled people. No longer is it acceptable to call a person with learning difficulties an imbecile or question her right to good education and care. Most practitioners and policy-makers are deeply concerned about the 'quality of life' of this group, whom they seek to include in mainstream institutions wherever possible. They

are not rigid about this, and many children move between special and mainstream provision in ways that are finely tailored to their needs. As a society, we are acutely aware of the value of self-determination, and many policies aim to give disabled people a voice, especially when their communication skills are poor. Increasing numbers of profoundly cognitively disabled people have access to advanced technologies that enable eye-pointing and other innovative methods of communication. Most importantly, children without disabilities are encouraged to 'include' their disabled classmates, which means listening to them, talking to them, helping them with tasks, and above all respecting them.

All this bodes well for the future, and it may seem churlish in the light of these advances to raise the spectre of subtle forms of condescension. There are, however, reasons to do so. One is the RDA, an argument advanced by salaried academics that has made its mark on the world wide web and beyond. Another is the possibility that I have so far treated as conceptual, of a gap between explicit commitment to egalitarian values and veiled feelings of superiority. If we fail to recognize this gap, we shall in a sense disable ourselves: we shall be blind and deaf to undertones of speech or behaviour that patronize cognitively disabled people.

This is not only a conceptual possibility. It is a threat in an instrumental culture like our own that sets great store by the meeting of objectives. My stories about the nun and Albert were intended to illustrate this. Gaita's purpose in telling us about the nun is different from my own in reporting this story. Gaita is interested in sainthood, a condition that he sees as exemplified by this extraordinary nun. I do not share this interest (at least not here); rather, I see the nun as an example of an individual whose ability to respect and cherish others may easily slip through the net of our perceptions, descriptions and reports. I see her as a person whose real or fictional qualities (we have only Gaita's youthful impressions, reported half a century later, to go on) *remind* us of something we may be tempted to forget. She is an *example* from which we may learn, and the important lesson, I think, is that we need to look out for people like her, and if we find them, emulate them. Respect and cherishing are not negligible achievements: they are attitudes that people may need to strive to acquire and sustain.[8] We hope to find them in long-term carers of highly dependent individuals, but parents are often disappointed.

Mrs Sweeney, in the Albert story, is preoccupied with objectives; she appears to work within a model that sees these as the 'really significant achievements of education' (Dunne, 1993, p. 6). This model is highly prescriptive about meaning; as Dunne notes, 'the language must not be too vague or too open to divergent interpretations' (Dunne, 1993, p. 6), for it is essential that everyone can agree whether an objective has been met or not. But this can be profoundly unhelpful to children, whatever their cognitive abilities. The teacher who (like Mrs Sweeney) is 'excited' about the prospect of meeting some objectives is precisely the teacher who is likely to overlook Gaita's distinction between the remarkable nun and the noble psychiatrist. In this difference, a universe lies. It is the difference not only between genuine respect and subtle condescension, but between looking at the world (as Vorhaus says) from the point of view the child, and looking at it through the lens of an objective. It is the difference, in short, between acknowledging and failing to acknowledge a *person,* and it is from *this* distinction that our philosophical understanding of personhood must ultimately emerge.

NOTES

1 Although this might be described broadly as a Kantian view, Kantian scholar Christine Korsgaard (2004) has argued, contra Singer et al., that it is a mistake to charge Kant with the view that infants are not rational beings (and therefore lack dignity, are not entitled to

unconditional respect, etc). She holds that Kant would have seen them as beings in whom reason is 'undeveloped, inert, or non-functional', and *as such* deserving of unconditional respect.

2 For a different perspective on the 'difficulty of reality' in relation to disability from that discussed here, see Cigman (2007, sect. 5).

3 A similar but better-known literary example is the scene in which Hamlet holds the skull of his dear friend Yorick in the palm of his hand.

4 The concept of deflection is drawn by Diamond from Cavell (1969).

5 We think here of the Freudian idea of resistance, with which deflection has affinities.

6 These phrases are understood by RDA proponents to explicate Locke's definition of a person.

7 We can cherish nonhumans too, and research shows that many nonhumans also appear to cherish their young. We can also cherish inanimate objects like paintings or sculpture.

8 It may be correct, in the language of Aristotle, to describe the cherishing disposition as a virtue, but there is no space to explore this idea here.

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Challenging Orthodoxy in Special Education: On Longstanding Debates and Philosophical Divides Revisited

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When special education as we know it today came of age in the early to middle 1960s, it emerged as a field principally informed by the prevailing philosophical and conceptual frameworks of the era – namely, positivism, empiricism, and behaviorism. Situated squarely within the medical and scientific models of help, the special education project centered on normative assessment, diagnosis, prescription, and, to the extent possible, remediation of those identified as requiring our intervention. Through the massive expansion of special education programs in the public schools in the ensuing decades, little appears to have changed as exterior level reforms have been consistently informed by the field's founding assumptions. Beneath the surface, however, a detectable shifting of the terrain has been taking place in the wake of the ongoing and often intense disagreements over methodological, practical, ethical, and socio-political considerations. While it has long appeared that those on various sides of these debates were irretrievably polarized, a reappraisal of the situation provides at least some grounds for thinking otherwise.

This chapter is organized around three issues central to the debates surrounding special education as they have unfolded over the years (see also, Gallagher, 2004b). First is the question so fundamental to the field of special education – how do we understand the nature of disability? Beyond investigating the mechanisms for what some view as scientific operationalization of disability definitions, our task here is to probe more deeply into the epistemological and ontological assumptions underlying opposing understandings of how we think about disability. The second issue concerns the debate over which research methodologies best inform the field's instructional practices, educational arrangements, and much more. What research methodology leads to valuable and useful knowledge as opposed to that which produces useless or even dangerous knowledge? This debate mirrors the dispute over the use of quantitative versus qualitative research that has taken place in the broader field of education, although a strong case can be made that because special education emerged from the medical model of disability, qualitative methodology has been met with far more resistance from traditional special education researchers than has been the case in the field of education as a whole. The third bone of contention, and one certainly intertwined with the preceding questions, is the conflict over educational placement, better known as the inclusive education debate. Where are special education, or 'special needs', students best educated?

In the process of examining the contours of the major issues outlined above, I revisit a previous rendition of the history of dissent in special education that I once suspected to amount to a stalemate but have since found some reasons to reconsider (see Gallagher, 2007). Although conflicting ideologies continue to exist (see Brantlinger, 1997), I will suggest that more recently spaces for a dialogue have been opened that tentatively

signal both a movement forward and possibly even something approaching a possible though distantly emerging consensus.

THE NATURE OF DISABILITY

What does it mean when we say someone has a disability? In both everyday parlance and special education professional discourse, it means that a person has an inability to perform physically, cognitively, or socially/emotionally in a manner considered typical (Kauffman & Hallahan, 2005). While this description of disability might appear benign and uncontroversial to most people, the taken-for-granted assumptions of this understanding have been thoroughly destabilized since the advent of the social model of disability and the minority group model of disability emerging from the *Disabled People's Movement* in the UK and the *Disability Rights Movement* in the US, respectively. Both models challenged public and professional images of disabled people as deficient and defective.

In the United Kingdom, the Disabled People's Movement was initiated in 1972 through the efforts of the Union of the Physically Impaired Against Segregation (UPIAS). In their statement, entitled *Fundamental Principles of Disability*, UPIAS activists took specific aim at the traditional understanding of disability as a form of pathology or set of problems directly and solely attributable to the individual who 'has the disability', stating that, 'In our view, it is society which disables physically impaired people. Disability is something imposed on top of our impairments, by the way we are unnecessarily isolated and excluded from full participation in society' (UPIAS, 1976, p. 3). Extending this statement, Oliver (1990) articulated and promoted the social model of disability that re-conceptualized disability as a set of physical and social barriers erected against people whose physical, cognitive, or social/behavioral differences society has *chosen* to perceive as a deficiency. Subsequently, these barriers or restrictions impose on these individuals many disadvantages such as segregation, dependency, poverty, and unemployment (see Barnes & Mercer, 2010; Barnes & Sheldon, 2010; Davis, 2010; Oliver, 2004).

During the late 1970s, the American counterpart to the UK's early social model emerged. Derived from the lessons learned from the civil rights movement, the early US social model asserted that people with disabilities share common ground with racial, ethnic, and other disempowered minorities in that their various differences have been socially-interpreted and represented as forms of inferiority (Fleischer & Zames, 2001; Shapiro, 1993; Zola, 1982). Both the British social model and the American minority group model challenge '… the idea of defective citizenship by situating disability in the environment, not in the body. Disability seen from this point of view requires not individual medical treatment [or other forms of 'intervention'] but changes in society' (Siebers, 2008, p. 73). It is important to note that the 'environment' Siebers referred to includes not only the physical surroundings, but also the cultural, economic, institutional, and educational practices that impose significant restrictions. It is likewise important to add that since its original founding the social model has been extended to include all disabilities, including those classified as intellectual, learning, or emotional (see, for example, Goodley, 2001).

At its core, the difference between the medical model of disability and its social model contender boils down to whether 'disabilities' *exist* as ontologically *real* conditions – are intrinsic to the individual, are quantifiably measurable, and are properly grounded in the logic of ability as normally distributed. From this

understanding, to say that a person 'has a disability' appears to be an entirely neutral statement rather than an interpretive judgment. The medical model affirms this perspective while the social model holds that disabilities are explicitly the product of social interpretations of various human differences – a subjective appraisal rather than an objective fact. Simply put, the social model supports the position that disability is a social construct or an *idea* about the nature of certain human differences (Kliewer & Biklen, 1996). Further, the social model calls for transformations of our cultural, educational, and physical environments that achieve accessibility and inclusion along all dimensions of our society. From a social model perspective, disability is thus an idea that can be dispensed with when we collectively choose to view (and treat) human differences not as problems or abnormalities in need of fixing, but rather as dimensions of human diversity.

As it applies to special education, the social model of disability is strengthened by pointing out:

- The changing and arbitrary nature of disability definitions (Danforth, 2007; Dunn, 1968; Ferri & Connor, 2006; Gallagher, 2010; Kliewer & Biklen, 1996).
- By the fact that one's chances of being labeled with a particular disability are contingent on where she or he lives (Biklen, 1988, 1992; Blanchett, 2010; Lipsky & Gartner, 1996).
- The overrepresentation of minority, poor, and working class students in special education (Artiles, Kozleski, Trent, Osher, & Ortiz, 2010; Blanchett, 2006, 2010; Dunn, 1968; Ferri & Connor, 2006; Harry & Klingner, 2006; Lavine, 2010; Lipsky & Gartner, 1996; Losen & Orefield, 2002; Patton, 1998; Tomlinson, 1981, 1982, 1996).
- The ongoing and enigmatic difficulties involved in defining and selecting identification criteria for various disabilities (during which time children and young people nevertheless have been labeled routinely in public schools as specifically having these ostensible disabilities) (Baglieri, Valle, Connor, & Gallagher, 2011; Carrier, 1986; Reid & Valle, 2004; Sleeter, 1986).

Oddly enough, these flaws and contradictions (although they do not seem to be recognized as such) have also been documented by those who continue to hold the objectivist view of disability as individual pathology (see Adelman, 1996; Kavale, 2005; Kavale & Forness, 1995; Mastropieri & Scruggs, 2005).

Recently, it seems that those who have long defended the presumed neutrality of disability as a category have begun to soften their claims of objectivity. Now, it appears, disability is being framed as a comparative social/educational difference (students who are not benefitting as others are from general classroom instruction). Identification of students as having disabilities is therefore affirmed as a function – at least in part – of judgment. For example, Kauffman and Hallahan (2005) described the diagnosis of disability as a 'subjective or 'clinical' judgment' that is '*informed*' by what they believe are more objective quantitative testing data (p. 29). The key point here is that the 'clinical' judgment involved in making a disability diagnosis can be grounded in presumably objective data.

Despite the admission that disability diagnosis cannot be made objectively, a series of articles by Anastasiou and Kauffman (2011, 2012, 2013) has undertaken an extensive critique of the social model of disability. In these articles, they cited several criticisms of the social model, although their assertion that the social model is flawed because it fails to acknowledge that disabilities are intrinsic or 'primarily intrinsic' is central to their overall thesis (see Gallagher, Connor, & Ferri, 2012, for a more complete response to these articles). From their perspective, disability stands apart from other forms of diversity (for example, race, which they acknowledge to be socially constructed), because disability alone can be grounded in biological difference that is either directly or indirectly observable and, unlike other forms of diversity, imposes 'restrictions in performing critical evolutionary abilities' (i.e., the ability to hear, see, walk, speak, learn, communicate, and socialize) (Anastasiou & Kauffman, 2012, p. 141). Hence, these biological characteristics confer the requisite

objectivity to frame disability as a neutral category, at least 'primarily'. The fact that biological differences are invariably subject to social interpretation, a point they quite correctly acknowledged, led them to describe these differences as 'socialized biological factors' (Anastasiou & Kauffman, 2011, p. 379).

Although their attempt to claim some degree of objectivity (while conceding the unavoidability of subjectivity) represents an authentic attempt to come to terms with a difficult epistemological quandary, it also has some inescapable difficulties. As has been detailed elsewhere (Gallagher, 2006),[1] concepts such as 'primarily intrinsic' and 'socialized biological factors' can only be made sense of if, and only if, we can establish a hard and fast distinction between the intrinsic and extrinsic, or the social as opposed to the biological. Where does one begin and the other end? 'Common sense' impels us to believe that drawing these lines is eminently possible, but we miss the insight that all human observation, even our observations of physical matter, is thoroughly imbued by human values (Hanson, 1958; Kuhn, 1962; Rorty, 1979, 1991). Separation of the 'thing itself' from our beliefs and opinions about it is distinctly impossible. Just as it is impossible for a member of a racist culture to observe a racial minority member without *simultaneously* bringing some meaning to the observation, so too is it impossible to observe that an individual cannot hear, see, walk, or socialize in the same manner without concurrently imposing our individual/cultural meanings. In other words, human observation is inevitably value-laden. Consequently, our 'common sense' belief that we can separate subjective opinion from the objective 'fact' is illusory.

To think of disability as an inherent, neutral condition therefore has profound moral and practical consequences because it conceals restrictive prejudices behind a facade of objectivity (see Corbett, 1996). Davis (1997) makes clear the effect this objectification has had on those judged as disabled. 'People with disabilities,' he stated, 'have been isolated, incarcerated, observed, written about, operated on, instructed, implanted, regulated, treated, institutionalized, and controlled to a degree probably unequal to that experienced by any other minority group' (p. 1). Unfortunately, much of this has been justified in the name of helping.

Another serious consequence of considering someone's differences an inherent disability is that it ignores the cultural values, beliefs, and social arrangements that make a perceived difference a 'disability' in the first place. For example, Brantlinger (2004) pointed out the incoherence of the culturally-revered concept of normal, particularly as it is formally expressed within the naturalizing logic of the normal curve (see also Davis, 1997; Dudley-Marling & Gurn, 2010a). While our schools (and society) are at great pains to make all children normal, we fail to realize that the normal curve forces a distribution, which means that it is impossible for everyone to be average or above. Although well-intended, educators who seek to *remediate* students until they perform on grade level are engaged in a Sisyphian undertaking. This is so because the normal curve demands a distribution in which a certain percentage of students *must* fall below average. As Dudley-Marling and Gurn (2010b, pp. 10–20) noted, '… the normal curve provides a rationale for special education that situates learning problems in the heads of individual learners and not in the structures of schooling that produced so much failure in the first place' (Dudley-Marling, 2004).

Lurking behind this drive to normalize is an ideological commitment to creating and maintaining social hierarchy (Dudley-Marling & Gurn, 2010a). Implicit in educational and economic stratification is the valuing of competition with its requisite creation of winners and losers (see Apple, 1990; Hayman, 1998; Lewontin, 1991). Out of this enforced consensus comes the demand for the invidious comparisons disability labels

invariably denote. Beyond this compulsion to sustain social hierarchy is another motivating feature Heshusius (2004b) referred to as the 'exclusionary fears' experienced by ordinary people in their responses to human differences. 'The attachments to images we hold as desirable for our selves,' she explained, 'create fears of others who are different in ways that do not fit these images' (p. 284). The very act of constructing the 'other' person as disabled is also the expression of a need to construct the 'self' as *not* disabled. Where and why the line is drawn says more about those drawing the line than those on the other side of it. Who gets to decide what kinds of differences makes a difference? Who is responsible for creating the conditions, criteria, and measurements under which these differences are pathologized and judged to be a problem? To acknowledge that disability is constructed (made), not discovered (found), involves a shift in metaphors such that what appeared to be a neutral observation is now revealed as a moral choice (Gallagher, 2001).

As with all culturally-constructed categories, disability is complex, changing, and politically charged. For this reason, Disability Studies scholars have subjected the social model of disability to ongoing scrutiny. It should be emphasized, however, that these debates have *not* questioned whether disability *is* a culturally-constructed category or whether the traditional medical model's wholesale objectification of disability retains worth or merit. Instead, the debates have centered on the question of whether the social model's original framing provided the best and most useful account of the disability experience. And, of particular relevance to the present discussion, scholarly examination of the original British social model has also questioned its distinction between impairment (physical capacities) and disability (barriers and restrictions imposed on people with impairments) through various conceptual frameworks, including feminism, post-modernism, post-structuralism, and critical realism (see Crow, 1996; French, 1993; Shakespeare, 2006; Shakespeare & Watson, 2002; Thomas, 2004; Tremain, 1998). Interestingly, the critical realism of Shakespeare and Watson (2002) and Shakespeare (2006) finds some common ground with the critical scientific realism of Anastasiou and Kauffman's (2011, 2012) critiques of the social model.

This proclivity toward deeper questioning, debate, and ongoing dialogue is, in my estimation, becoming more prevalent. Just as Disability Studies scholars have questioned the original social model of disability, special education scholars who have long insisted that disability is an inherent, objective condition have begun to acknowledge more openly and probe more deeply the nebulous lines drawn between ability and disability, the abled and disabled. It is, I believe, a cause for optimism when scholars from various traditions and backgrounds are willing to engage in these dialogues, to make their best cases, and to engage seriously the arguments of others unless or until they can make a more convincing one.

RESEARCH METHODOLOGY

The debate over quantitative versus qualitative research that has occupied the educational research community over the past 25 years or so (see Denzin & Lincoln, 2000; Lincoln & Cannella, 2004; Smith & Heshusius, 1986) still continues in the dispute over scientific education research and evidence-based practices (see Erickson & Gutierrez, 2002; Feuer, Towne, & Shavelson, 2002; Slavin, 2002; St. Pierre, 2002). As suggested earlier, though, a case could be made that the struggle over this question has been more intensely contested in special education (see Danforth, 1999, 2006; Dudley-Marling, 2011; Gallagher, 1998; Mostert & Kavale, 2001; Sasso, 2001). As will be discussed, the special education literature certainly seems to indicate so.

Two aspects of the field appear to have set the stage for this intensity. First, having emerged from the medical model of disability, special education not unexpectedly adopted empiricism as its dominant research tradition. Consequently, qualitative or interpretivist methodology has remained on the periphery. Second, special education centers on people who, as a group, have been historically marginalized and oppressed (Fleischer & Zames, 2001; Longmore & Umansky, 2001). This second point has raised serious questions about representational justice, the inclusion of disabled people's voices, and many other issues (Barton, 2005; Oliver, 1992). On the one side, empiricist special education researchers have asserted that the procedures of science (i.e., empiricist research methodology) constitute the best hope for valid and reliable knowledge necessary for informed practices (Kauffman, 1993; Vaughn & Dammann, 2001; Walker et al., 1998). On the other side, qualitative/interpretivist researchers have asserted not only that empiricist claims to scientific authority/objectivity are erroneous, but also that the dominance of empiricist methodology has had distinctly undesirable consequences for the people it is intended to serve as well as for the field as a whole (Gallagher, 1998; Heshusius, 1989, 2004a; Iano, 1986; Poplin, 1987).

Let's begin by examining the case for science made by empiricist special education researchers. By numerous accounts, the field has produced a knowledge base of effective teaching interventions for students with disabilities (see Forness, Kavale, Blum, & Lloyd, 1997; Hallahan, 1998; Hallahan & Kauffman, 1997; Hockenbury, Kauffman, & Hallahan, 1999–2000; Lloyd, Forness, & Kavale, 1998; Walker et al., 1998; Zigmond & Kloo, 2011). These interventions include: behavior modification techniques, task analysis, cognitive training, medication, the commercial Direct Instruction Programs, token economies, functional assessment, and phonics-based approaches for teaching beginning reading, to name several. From the empiricist researchers' perspective, the procedures of science are perfectly and uniquely suited to distinguish effective teaching procedures and programs from those which are not. As Kauffman (1999) put it, 'Special education teachers and scholars are best armed against ignorance, failure, fraud, and abuse with greater knowledge of scientific practices' (p. 266). Empiricist and positivist science, and the Enlightenment thinking that produced it, is the only thing standing between the field's credibility and its potential demise.

Beginning in the late 1980s, philosophical critiques of empiricism and positivism began to appear in prominent special education academic journals. Among the first to appear was Iano's (1986) critical appraisal of the effects of what he referred to as the 'natural science-technical model'. His main thesis was that positivist science is misapplied to the study of education in general and special education in particular. Among the pernicious effects of this misapplication are the inevitable separation of theory from practice, and the creation of a class (or caste) system in which university researchers alone assume the role of knowledge producers. He also elaborated on the deeply distorting effect that the presumption of scientific, value-free objectivity has on education in that this presumption inevitably strips teaching of its moral substance and context, stating:

> Values, norms, and interests are not merely the subjective components of education which can be attached to just any set of objective means and techniques. Rather, values, norms and interests are the very basis of the educational enterprise and educational activities are thoroughly informed by them. (Iano, 1986, p. 55)

In special education, he pointed out, not only has positivist ideology made the classification system appear to be a values-free tool, thus absolving educators of the moral responsibility for making such judgments, but it has also undermined the field's credibility as confusion and controversy over disability categories continues

unabated.

Rebuttals to Iano's (1986) work consisted of varying degrees of denial, reassertion, and concession (see Carnine, 1987; Forness & Kavale, 1987; Lloyd, 1987). Carnine (1987) argued that Iano's proposal for more naturalistic inquiry in special education represented, 'an equally inappropriate domination of one type of knowledge over another' (p. 42). Asserting his contention that positivist research has indeed led to significant accomplishments, he went on to dub Iano's critique as being 'rude', 'ill-founded', and 'rather greedy' (p. 43). Lloyd (1987), while agreeing with Iano on several fronts, disagreed with, 'some of the premises and with the form of argument advanced in his paper' (p. 44). Finally, both Lloyd (1987) and Forness and Kavale (1987) appeared to acknowledge Iano's concerns only to offer their assurances that these problems could be remedied by more sophisticated and ongoing applications of empiricist and positivist methodologies.

Iano's article was followed by Poplin's (1987) critique of the use of the scientific method in special education research. Like Iano, she drew on the work of eminent philosophers of science to make the case that the exclusive use of positivist research methodology, 'has blinded us to a whole range of issues that influence the lives of the students we serve' (p. 31). Drawing on examples from special education, she elucidated the problems integral to positivist/empiricist research, problems that included the decontextualizing effect of scientific reductionism and experimental separation, the moral poverty of value-free objectivity, the inevitable (yet unacknowledged) biases contained in hypothesis generation, and the impossibility of theory-free observation. Poplin's article illustrated for her readers that the flaws in the scientific method as it is applied to educational research cannot be remedied by technical solutions. Instead, the problems are built-in to the method itself. Thus, the only way to overcome these limitations is to open special education research to include qualitative methodology as an alternative form of inquiry.

Two years later, little had changed when Heshusius (1989) added her voice to the ongoing exchanges over the issue of paradigm shifts in special education knowledge. Framing her discussion around what she referred to as the dominant 'Newtonian mechanistic paradigm,' she employed a range of examples elucidating how the mechanistic reductionism of epistemological objectivity misinforms special education research and practice. Beyond that, and of particular importance, was her insightful discussion about the widespread confusion over the distinction between theories and paradigms. Theories exist within paradigms, while paradigms form the fundamental set of assumptions, conceptual framework, or lens, through which one sees the world. Because the Newtonian mechanistic paradigm has so dominated Western thinking and rationality for centuries, most of us are entirely unaware that we see the world through any particular lens at all. In the absence of paradigmatic awareness, it is virtually a foregone conclusion that theories within one's paradigm are easily mistaken for the paradigm itself. That was, and likely is still, the reason why those who have applied non-orthodox, or non-dominant, paradigmatic thinking to the debates in special education are accused of being 'malcontents' and having 'fuzziness' in their thinking. Unconscious paradigmatic allegiance goes a long way toward explaining why the participants in the Iano exchange proposed solutions to the problems he raised consistent with their own paradigmatic assumptions rather than questioning those very assumptions.

During the 1990s to present time, a growing number of scholars in the field began expressing their concerns about the unidimensional focus on empiricist/positivist research in special education (see for example, Allan, 2008; Brantlinger, 1997; Danforth, 1999, 2006; Dudley-Marling, 2011; Gallagher, 1998, 2004a, 2006; Paul, 2002; Reid, Robinson, & Bunsen, 1995). Heshusius provides a detailed account of the

rocky reception encountered by these attempts to pluralize special education research. Specifically, she noted that:

> a backlash seems to have arisen in the major (US) special education journals. These journals have 'behaved' in what seems, at the surface, erratically, accepting articles from an alternative paradigmatic perspective at certain times, even making them into feature articles, while rejecting articles of the same nature at other times. But there probably is nothing erratic about it. It can be understood in terms of the extraordinary need for mainstream special education leaders to retain the positivist and behavioral status quo in the field. (2004a, pp. 187–188)

Meanwhile, a significant number of articles defending the role of science in special education research began to surface in major journals (see, for example, Heward, 2003; Kauffman, 1993, 1999; Sasso, 2001; Walker et al., 1998).

Oddly enough, some of these same researchers concurrently expressed thoughtful concerns about how to improve the rigor of their science (Gersten, Baker, & Lloyd, 2000; Walker et al., 1998). The problems they identified in their research practices ironically affirmed the philosophical critiques they sought to discredit (Gallagher, 2004a). That notwithstanding, a special issue of the journal *Behavioral Disorders* (Crockett, 2001) was devoted to reasserting the positivist framework as the only proper and responsible approach to conducting inquiry. In his opening editorial, co-editor Frederick Brigham asserted that, 'the research community should be engaged in a search for truth' (p. 5), thus implying that the only truth that can be known is that produced by the presumably neutral and objective procedures of this version of science.

And that is where the discussion appeared to have reached an impasse. For the defenders of this version of science, all that seemed necessary to sustain their position was to persist in claims of epistemological objectivity. This persistence has been made possible by a near total disregard for the work of some of the most eminent philosophers in the past 50 years or so (for example, Gadamer, 1960/1995; Habermas, 1971, 1975; Hanson, 1958; Kuhn, 1962; Rorty, 1979, 1991). Rare attempts to engage this body of work reveal what can only be seen as either a selective distortion of the ideas or a bewildering failure to grasp their implications (see for example, Carnine, 1987; Forness & Kavale, 1987; Kauffman, 2002; Kauffman & Sasso, 2006a, 2006b; Mostert & Kavale, 2001; Sasso, 2001). Similarly, non-empiricist/positivist academics within special education have been characterized as 'anything goes relativists', a facile charge based on a not uncommon but nevertheless superficial version of relativism (for discussions of these characterizations, see Danforth, 2004; Heshusius, 2004a; for a discussion of epistemological and ontological relativism in relation to special education knowledge, see Gallagher, 2004c, 2006).

It remains the case that empiricist/positivist research methodologies have maintained their domination in special education research through the current mandate for evidence-based practices, the *Institute for Educational Sciences* (IES), the *What Works Clearinghouse* (WWC), and in the language of Response to Intervention (RTI). That said, there are also indications of a renewed, and more amicable, dialogue among disability and special education researchers. For example, *the Council for Exceptional Children's* (CEC) *Division for Research* included qualitative research in its task force discussions on quality indicators and guidelines for evidence of effective practices provided by various methodologies (see Odom et al., 2005). More recently, a double special issue of *Learning Disability Quarterly* (Connor, Ferri & Gallagher, 2011) was devoted to exploring the value of a plurality of research methods in the field of learning disabilities. Invited submissions

and respectfully engaging commentaries included researchers who hold a range and variety of methodological commitments. Because research and the production of knowledge that informs our field is so vitally important, we should expect thoroughgoing and vigorous debate about this issue to be ongoing. That these dialogues be both rigorous and civil is something I believe all of us hope for and should endeavor to achieve.

INCLUSION

In any discussion of inclusive schooling, it is necessary to clarify a point of contention up-front. Ardent advocates of preserving the continuum of separate placements in special education maintain that they are not against inclusion per se. Rather, they are simply in favor of preserving segregated classes *for those students who need them* (Kavale & Forness, 2000; Kauffman & Hallahan, 2005). In other words, they draw a distinction between *Least Restrictive Environment* (LRE) and inclusion (Rozalski, Miller, & Stewart, 2011) and favor some inclusion but not *full* (virtually universal) inclusion. Much has been made of this distinction as those contesting full inclusion have accused those favoring it as having failed to define precisely what full inclusion means. Does it mean *every* child should spend *all* of his or her time in the general education classroom (MacMillan, Gresham, & Forness, 1996)?

From the perspective of committed inclusionists, this '*every/all*' technicality has provided an interesting device for impugning calls for inclusive education. Notwithstanding, the use of the term *full inclusion* might better be understood as a means to distinguish between those who wish to maintain the status quo versus those who advocate for the end of institutionalized segregation (Gallagher, 2001). As Sapon-Shevin (1996) characterized it, full inclusion doesn't mean no supports will be made available; instead, it means that supports such as occupational, speech, and physical therapy be 'provided in the most integrated way possible' (p. 39). No one is advocating, as critics have implied, that students be abandoned to their fates in the general education classroom. That said, the main arguments against full inclusion fall under three categories: a) moves toward inclusion must await empirical (empiricist) proof that it works, b) the normal curve makes inclusion unrealistic, and c) certain unmovable realities make inclusion unrealistic.

EMPIRICAL PROOF

Reflecting their commitment to realist epistemology and ontology, defenders of the traditional continuum of placements previously asserted that inclusion should not be implemented until scientific research proves its effectiveness (Fuchs & Fuchs, 1991; MacMillan et al., 1996). Thus, they framed the debate as a standoff between those who maintain disciplined objectivity versus those who willfully, and for self-indulgent purposes, ignore science (Kavale & Forness, 2000). Their criticism of inclusion advocates was predicated on the assumption that science can serve as the neutral arbiter, thus obviating any reason to engage inclusion as a moral issue. Inclusionists, many if not most of whom hold a non-realist or constructivist perspective, took issue with this position on a number of fronts.

First, this argument deftly shifted the burden of proof (Brantlinger, 1997). In essence, segregated education was established as the standard against which all other arrangements must be assessed. From an inclusionist perspective, if empiricist proof of effectiveness is to be required (however inappropriate), shouldn't it be required of those who insist on assigning disability labels and segregating students from their peers? Second,

efficacy studies on the effectiveness of segregated special education settings have been around for some time and have never succeeded in putting the question to rest. Interestingly, as Kavale and Forness (2000) correctly pointed out, studies have yielded such mixed results that they have been selectively cited as support by those on both sides in the debate. Still, the orthodox view for some time insisted that such research endeavors can put the issue to rest; and, more importantly, 'radical' and 'ideological' inclusionists are obliged to await conclusive results (Kavale & Forness, 2000; MacMillan et al., 1996). For their part, most inclusionists not only rejected this assertion as a red herring, but more importantly, having rejected the now discredited premises of value-free objectivity, fact versus values distinction, and theory-free observation, they also rejected the notion that scientific research can serve as a neutral arbiter (see, for example, Allan, 2008; Gallagher, 2001, 2004b, 2004c; Heshusius, 2004a, 2004b; Slee, 1998). The question for them was not whether inclusion can be verified by a values-free science, because, as noted above, no such thing exists. Instead, they see inclusion as a fundamentally moral issue requiring a principled commitment to make it work.

Having made the argument that inclusion must be proven scientifically effective prior to enactment, more contemporary assessments of this argument seem to have lost their force even for those who previously held this position. First, and despite the importance placed on this issue, little research has actually addressed it (Kauffman, Nelson, Simpson, & Mock, 2011). Second, the existing research has been unsuccessful in pinning down definitive answers to the question the effectiveness of inclusion versus its alternative (Kauffman et al., 2011). Thus, a consensus appears to have emerged that inclusive education will forever and always remain a contested ethical and political issue rather than a scientific one.

THE NORMAL CURVE

The orthodox belief that ability is normally distributed reflects yet another commitment to realist/empiricist ideology. Hallahan and Kauffman (1994) contended that because of the unmovable reality of the normal curve, improvement of education for all children will only increase the statistical variance in outcomes. Disability, and the need for segregation, will therefore always be among us, as ordained by the normal curve. For example, Kauffman (2005) argued that, 'In education, students with disabilities are those who score low on tests *because of their disability*. Trying to close this gap is like waving to Ray Charles' (p. 520, emphasis in original).

Aside from the somewhat regrettable attempt at humor, Kauffman (2005) quite rightly critiqued the ludicrous goal stated in the *No Child Left Behind* (2001) legislation that all children should perform at or above average on standardized achievement measures. What he did not appear to realize is that the normal curve enforces both disability and social inequality (Davis, 1997; Dudley-Marling & Gurn, 2010a). Nor did he question why we choose to subject human beings to normative comparisons. Rather than understanding the application of the normal curve as a choice with profound moral consequences, segregationists have invoked the inevitability of the normal curve as a reason to continue these arrangements. As discussed earlier, the normal curve is a human invention, reflecting the ideological and political goals that conditioned its construction. But if one starts from the premise of the normal curve as objective reality, any form of inclusion is merely a concession to political correctness and not a viable policy for educating children.

A related argument for segregation asserts that, because normative comparisons are inescapable, students

with disabilities need the protection of separate settings to escape the stigma of underachievement (Kavale & Forness, 2000; MacMillan et al., 1996). Inclusionists have countered that *asylum* or *protective custody* from the vicissitudes of invidious comparisons is a case of victim-blaming (Blomgren, 1993; Brantlinger, 2004). They have further argued that segregating some students leads others to fear and reject those who have been made pariahs. The message from adults is clear – it is dangerous not to measure up. Borrowing a term from Bourdieu (1991), segregation constitutes a form of *symbolic violence*, serving both to promote stigma and undermine the safety, security, and integrity of all students. Without an apparent sense of irony, segregationists subsequently cited research warning that negative peer attitudes threaten to undermine inclusion efforts (Kavale & Forness, 2000; MacMillan et al., 1996). Once pariahs are created, they then point to this situation as confirmation that segregation is necessary.

THE REALITIES OF THE GENERAL EDUCATION CLASSROOM

Defenders of segregated placements have expressed immense skepticism toward the possibility of genuinely inclusive general education. For them, the seeming necessities of student conformity, large-group instruction aimed at the average students, and teachers' preoccupation with classroom routines are fixed realities making inclusion something of a utopian pipedream (Kavale & Forness, 2000; Kauffman, 1999–2000). Subsequently, they have insisted that it is simply impractical to expect teachers to *accommodate* all students (Fuchs & Fuchs, 1995; Heward, 2003; Zigmond, 2003). Likewise, some have insisted that many if not most students with disabilities require research-based, specialized instruction that realistically can only take place in specialized or small group settings (Anastasiou & Kauffman, 2012; Kauffman, 2005; Zigmond & Kloo, 2011).

It is not that these pressures go unrecognized by inclusion advocates, as their critics would seem to believe. Instead, inclusionists have a very different understanding of the origins of them, reflecting once again the opposing frameworks brought to the table. Rather than seeing the *reality* of the general education classroom as neutral and fixed, they see it as one of our own making (Allan, 2008; Baglieri et al., 2011; Ferri, Gallagher, & Connor, 2011; Gallagher, 2001). More to the point, this reality is constructed to enact cultural values of technical efficiency, productivity, and competition (Blomgren, 1993; Brantlinger, 2003; Skrtic, 1996). Urging recognition and reconsideration of these values as applied to special education, Blomgren offered the following appeal:

> We must look more closely at our medical model of help and reappraise our notion of successful education as it is currently understood in terms of utility, productivity and competition. Evaluation and competition, the prized elements of today's educational practices, need to be exposed for the roles they play in establishing and maintaining the educational hierarchy that systematically excludes and dismisses vast numbers of our students and prevents them from obtaining the promised 'keys to the kingdom' as they participate in the educational obstacle course. (1993, p. 241)

What if these values were replaced by others? What if it was more important to promote democracy, equality and human dignity as guiding values (see Edgar, Patton, & Day-Vines, 2002)? The point is, the seeming necessity to segregate and remediate (with special research-based interventions) is seen by inclusionists as a relic of unexamined knowledge and misplaced values.

This is not to say that schools can transform themselves single-handedly. Education takes place in a cultural context. Schools reflect and enact the dominant ideologies of their respective cultures. But this situation does

not mean that educators must remain passive by failing to recognize and confront the contradictory pretenses of equality in an unequal society. To insist that the so-called realities of the general education classroom make inclusion unrealistic is a political stance in defense of a distinct set of social and moral values, i.e., those associated with the maintenance of social hierarchy. To acknowledge this means that educators can contribute to reconstructing these same classrooms in defense of the values most of us hope to enact – democracy, equality, and human dignity.

PHILOSOPHICAL DIVIDES

In this chapter, I have laid out the fault-lines in these debates as falling along the epistemological and ontological divide. By and large, those defending the orthodoxy of traditional special education have long endorsed the medical model of disability, empiricist research, and the maintenance of segregated placements. Evident on all of these fronts is a thoroughgoing appeal to philosophical realism in the form of empiricist/positivist assumptions. Equally evident is the clear appeal to philosophical non-realism on the part of those challenging traditional special education orthodoxy. Constructivist leanings are reflected in their adherence to the social model of disability, advancement of methodologically pluralistic research approaches, and advocacy for inclusion (Brantlinger, 1997; Danforth, 2004). There are, of course, inclusion advocates who adhere to the realist framework, and even those who identify themselves as standing somewhere in the middle – if such a stance can be had. Nevertheless, I would suggest that a good case can be made that the two major philosophical contenders in these debates diverge between empiricism/positivism and constructivism.

Some denouncements of writings remotely hinting at post-modernism (often incorrectly perceived as such) certainly appear to locate the center of the storm squarely on this philosophical divide (see for example, Crockett, 2001; Gerber, 2001; Kauffman, 1999, 2002; Kauffman & Sasso, 2006a, 2006b; Sasso, 2001; Walker et al., 1998). These writings have apparently been provocative because they question the very foundation of special education orthodoxy. As Danforth explains, 'the overall effects [of these writings] was one of claiming that the emperor had no clothes' (2004, p. 446). The assumption of scientific neutrality is, after all, an indispensable requirement for grounding claims about the nature of disability, the superiority of preferred research methods, and rationales for segregated educational arrangements. When this assumption is decisively undermined, what recourse remains (Gallagher, 2006)?

For some time it seemed that whatever recourse could be had consisted of repeated reassertions of [partial] objectivity embedded within remonstrations about the present and potential danger of anything viewed as *postmodernist* (see Kauffman & Sasso, 2006a, 2006b). In the meantime, many non-orthodox special education scholars have migrated to the now flourishing field of Disability Studies in Education (Connor, Gallagher, & Ferri, 2011; Danforth, 2004; Heshusius, 2004a; Reid & Valle, 2004), and most subareas of special education have already moved beyond empiricism/positivism as their organizing framework (Danforth, 2004). More recent developments, as I have discussed throughout appear to signal a greater openness to dialogue and more engagement across perspectives. I remain hopeful.

NOTE

1   Readers are encouraged to read the entire exchange between Kauffman & Sasso (2006a, 2006b) and Gallagher (2006) for in-depth

elaboration on this issue.

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What do Classroom Teachers Need to Know about Meeting Special Educational Needs?

Ruth Kershner

INTRODUCTION

This chapter focuses on the knowledge teachers may need and create in working with children seen to have special educational needs within the diverse pupil population of most 'ordinary' classes and schools. 'Special educational needs' (SEN), in general terms, refers to the individuals and groups of children whose classroom learning is found to be unusually effortful, unpredictable, slow or otherwise problematic compared to their classroom peers in school. In England, significant numbers of children are identified with SEN: around 1.62 million children (19.8%) in 2011–2012 (Department for Education [DfE], 2012). Of these, 226,000 had received a 'Statement of SEN', laying out their entitlement to extra help after formal assessment. The remainder (around 1.39 million without statements) were taught within each school's resources, with the support of the school's special educational needs co-ordinator (SENCO) and other school staff. In some cases, outside specialists were also involved, such as educational psychologists, health professionals and specialist teachers working closely or more loosely as a multidisciplinary team. The majority (around 94%) of pupils identified with SEN without formal statements were enrolled in state-funded primary or secondary schools, managed locally (by Local Education Authorities) or contracted centrally (e.g., academies). Children identified with SEN are commonly seen to require additional or different teaching and educational resources at some point in their school career, but what is actually offered differs from school to school. This is unsurprising since schools vary widely in their pupil intake, their policies for inclusion, their approaches to pupil grouping, curriculum planning and teaching, and hence their perspectives on SEN. Nevertheless, this snapshot of the English system suggests that most teachers are likely to be responsible at some point for identifying and teaching children identified with SEN within mixed pupil groups. Efforts to support the children's learning inevitably involve teachers in collaborating with others within and beyond the school: professional colleagues, parents and the children themselves. This offers a wealth of relevant knowledge and experience, but not necessarily a shared and coherent set of beliefs and principles.

A central argument of this chapter is that teachers' active engagement in collaboration and dialogue lies at the heart of the reflective process of knowledge building about SEN. Collaborative work can provide an essential context for professional knowledge building, especially when local and national circumstances support teachers' autonomy in establishing working partnerships (Rytivaara & Kershner, 2012). Professional collaborations call on teachers' agency to face the contradictions encountered, cross professional boundaries and engage in cycles of collaborative learning activity that generate new ways of thinking, purposes and goals (Engeström & Sannino, 2010). This perspective, grounded in sociocultural thinking, acknowledges that there are inevitable differences of opinion about children's educational needs and that relevant knowledge may not

be communicated effectively to others, or even compatible in practice. The children themselves may come to represent boundaries drawn in people's thinking between what is seen as typical and normal, or exceptional and unacceptable, in different school contexts.

Thinking about typicality and difference extends beyond education to include fields of biological, psychological and social research on children's development through life as well as the varied beliefs of the general public. Useful educational connections therefore need to be established between these. If researchers clearly explain their methods and limitations as well as their headline findings, then teachers have a reasonable basis for capturing and applying research evidence that bridges biological, psychological, social and educational interests in a contextualized way. There is a similar need for teachers to be able to understand why other teachers, professional colleagues, children and parents think as they do. The digestion, sifting and compilation of ideas from different sources are in themselves essential professional activities. They contribute productively to professional knowledge building that goes beyond simple claims about 'what works' for certain abstract 'types' or categories of pupils and that remains responsive to teachers' own experience, thinking and practice. In the discussion that follows next, more detailed attention will be given to aspects of teachers' knowledge building in terms of: professional knowledge and practice; knowledge about children; individual and collective knowledge building; and the incorporation of other forms of knowledge and research evidence into teaching.

TEACHERS' PROFESSIONAL KNOWLEDGE AND PRACTICE

Pedagogical knowledge in practice

Experienced teachers collectively hold a great deal of relevant knowledge, but attempting to pin down a generic knowledge base for 'meeting special educational needs' is rather risky and potentially misleading. Much professional knowledge remains highly contextualized and tacit (Verloop, Van Driel, & Meijer, 2001), changing over time in close connection with particular classroom experiences. Teachers often become pragmatically adept at transferring, adapting and expanding what they know according to circumstance, but particular efforts are needed to address concerns about potentially marginalized children who are somehow different or exceptional in school. Teaching diverse pupil groups requires teachers' active involvement, willingness and opportunity to 'interrupt' familiar practices and create space for self-questioning, inquiry and the reframing of perceived problems (Ainscow & Miles, 2011, p. 7). Yet development of the 'wise practical reasoning' and 'artistry' of successful teaching is not automatic (Eisner, 2002). Successful teachers do not simply apply ideas and theories developed elsewhere (Connelly, Clandinin, & He, 1997). Existing theories of teaching are in any case somewhat fragmentary and inconsistent in guiding practice in particular contexts, and particular views about pedagogy may fundamentally mismatch teachers' own thinking and intentions.

Teachers' personal beliefs, motivations and skills are deeply intertwined in pedagogical thinking and practice. Connections have been found, for instance, between teachers' conceptions of the nature of learning and knowledge, their constructions of ability and disability, their adopted positions of responsibility for children's learning, and their observed effectiveness in teaching inclusive classes (Schwartz & Jordan, 2011). The challenge in outlining relevant knowledge for teaching children identified with SEN is therefore to seek common ground between the uniqueness of beliefs developed in particular teaching circumstances and the

generic understandings and practices that appear to make the profession of teaching distinctive, recognizable and well-informed.

Professional knowledge and qualification

The current professional expectations and requirements for qualified teachers in England emphasize that:

> Teachers must have a clear understanding of the needs of all pupils, including those with special educational needs; those of high ability; those with English as an additional language; those with disabilities; and be able to use and evaluate distinctive teaching approaches to engage and support them. (DfE, 2011b, p. 6)

This requirement to understand and respond to children's various 'needs' has remained part of official policy in England in the past decade – a time period of significant political, economic and educational change (DfE, 2011b; Teacher Training Agency [TTA], 2003; Training and Development Agency for Schools [TDA], 2008). The overt meaning and intention has shifted, however. The language of 'personalization', 'equality' and 'inclusion' that was evident in the mid-2000s is less evident in the most recent formulations, but there remains an explicit professional responsibility for teachers at all levels to understand pupil diversity in order to engage and support all children in learning (DfE, 2011a). All teachers in England are expected to take central, but not sole, responsibility for teaching pupils identified as having SEN (DfES, 2001). As outlined in the national school inspection framework that underpins school accountability (Ofsted, 2012), senior school leaders also hold responsibilities for enabling the attainment and progress of all pupils and groups of pupils, '… especially those whose needs, dispositions, aptitudes or circumstances require particularly perceptive and expert teaching and, in some cases, additional support' (p. 5).

Key areas of knowledge are embedded in these professional expectations of teachers, including how pupils' physical, intellectual, linguistic, social, cultural and emotional development may affect their learning, how to work with others and how to find relevant information, advice and support, as well as pedagogical content knowledge relating to the curriculum. Such thinking clearly points to the need for a sophisticated understanding of intersecting experiences and influences in children's lives. Yet if teachers are genuinely to meet the professional standards outlined above, then we may ask how sufficient knowledge about children's development and learning may be reasonably acquired and applied in the face of competing intellectual, professional and political pressures. Questions arise about the nature of the knowledge required and its relationship to educational aims, values and priorities. There is a need also to acknowledge teachers' own work as knowledge builders, not just consumers, creating ideas that live beyond the classroom and become subject to scrutiny and revision by others (Scardamalia & Bereiter, 2003).

Different types of knowledge?

Conceptual distinctions are commonly drawn between *declarative* knowledge about facts and concepts ('knowing that') and *procedural* knowledge of routines and procedures for action ('knowing how'). *Conditional* knowledge then captures the strategic decision-making for judging how to act in particular circumstances ('knowing when and why') (Paris, Lipson, & Wixson, 1983). These states of knowledge are closely linked in practice. In the familiar complexity of school life, it becomes a matter of working out the best course of action

within competing demands. At such times, relevant knowledge might be well-established or more fluid. Eraut (2009), for instance, draws a useful distinction between workplace knowledge that is embedded in the routines and protocols of practice, and knowledge which comes to the fore in particular situations and emergencies at different points of time. This framework allows consideration of two aspects of knowledge in practice: '… what practitioners currently do … (and) what they ought to do' (p. 79).

Decisions about what *ought* to be done for children identified with SEN have a wider context than the classroom, however. Personal views and cultural values change in education, and thinking about SEN and inclusion carries a long history of debate and alternative policy-making. As Berliner remarks, '… the cognitive competences of expert teachers must always be thought of relative to a culture, perhaps even to a decade in a culture' (2001, p. 467). The knowledge associated with teachers' developing expertise is practical, interactive and necessarily responsive to wider social and political changes that involve many different stakeholders. Teachers' personal knowledge about the learning of certain individuals and groups of children forms just one part of the wider system of beliefs and values underpinning approaches to leading and resourcing the education system for *all* children, not just those who do not fit with the majority. This points towards a need for teachers to '*know who*' as well as '*that, how, when and why*', when working with others in the multidisciplinary teams of special educational provision and inclusion. As Edwards argues, teachers need to develop the capacity to work out how to '…align one's thoughts and actions with those of others in order to interpret problems of practice and respond to those interpretations' (2009, p. 203). This is not necessarily to accept the status quo and deny the possibility of creative and original responses to students who are seen as different. The professional dialogue that accompanies educational action is crucially to do with developing relations between people, not just bodies of academic knowledge and analysis. It is where informal and formal narratives of experience can be valuable for developing productive conflict as well as supportive empathy and mutual understanding.

TEACHERS' KNOWLEDGE ABOUT CHILDREN: A NEED FOR COMPLEX PEDAGOGICAL RESPONSE

The complexity of children's life experience

Alternative beliefs about children's development and learning can support or challenge the very concept of 'SEN' in different local and national contexts. For instance, children's capacities for learning might be characterized by teachers and others as either fixed or transformable, with direct implications for what is then expected of them and offered in school (Hart, Dixon, Drummond, & McIntyre, 2004). There is increasing psychological attention to evidence about the complexity of children's experience in their social lives and development (e.g., Meadows, 2010), yet persistent attempts are made to explain children's educational attainment in terms of single factors (e.g., gender), dimensions (e.g., learning styles) or syndromes (e.g., autism). Recent years in England have seen a revival of interest in identifying generic types or patterns of SEN, such as dyslexia and attention deficit hyperactivity disorder (ADHD). Yet there has also been increasing professional and academic attention to complex profiles of learning difficulty and disability, and the associated 'layered needs – e.g., mental health, relationships, behavioural, physical, medical, sensory, communication and cognitive' that may affect engagement in learning at any educational level or phase (Carpenter et al., 2011).

These psychological and educational understandings of children's development fall within wider social and economic contexts of income inequality that affect pupils' access to resources as well as conceptualization of their 'needs' over time. The demands of measurable accountability in education tend to support uni-dimensional classifications that have administrative rather than educational value. Categorizations of children are influenced at least in part by competition for additional resources in a time of limited educational funding. This is in turn influenced by the rhetoric of consumer politics within educational systems of accountability that depend on the construction of measurable 'data'. Such thinking fits with the wider frameworks of policy, practice, research and local opinion that dominate educational discourse, and that can '… favour simplistic and evaluative categorisations which conceal as much as they reveal about diversity' (Ainscow, Conteh, Dyson, & Gallannaugh, 2010, p. 195). A danger clearly lies in 'essentializing' children in terms of a group label and ignoring variability within groups (Gutiérrez & Rogoff, 2009, p. 116). On the other hand, the alternative extreme is to ignore children's common experiences altogether in favour of individualism. Focusing on individual learners may usefully acknowledge the complex nature of children's lives, but it may also ignore unexpectedly similar concerns and interests, separating children from each other and denying opportunities in the essentially social experience of inclusive classroom learning (Kershner, 2009).

Responding to 'difference'

Beliefs about particular dimensions of difference may come to be strongly embedded in teachers' thinking, with persisting misconceptions about the interplay of physical, psychological and social influences. For instance, a recent study of secondary school trainee teachers in England found the existence of uncertainties and misunderstandings about neuroscience similar in many ways to the general public's 'neuromyths' (Howard-Jones, Franey, Mashmoushi, & Liao, 2009). Simple 'learning style' or 'brain-based' interventions often fail to acknowledge the essential co-ordination of functioning across the brain and the multimodal complexity of even the most basic activities in school (Geake, 2008). Yet, experienced teachers can find such programmes pedagogically useful in that they can carry a 'common-sense' face validity which may provide educational affordances for discussion with students about learning (Martin, 2010). Such programmes may also take on a role in school that visibly demonstrates and embeds systematic efforts to respond to pupils' individuality within the expectations of external inspection, professional accountability and school policy (Martin, 2010). We see that assumptions about the learning of individuals and groups of school pupils can be both over-simplified and over-complicated in balancing classifications of children for certain purposes with more complex understandings of children's development and learning in the social classroom context.

Categorization in itself does not support teachers' decision-making about how to teach individuals and groups of children, given the situated, social and communicative aspects of inclusive classroom learning (Kershner, 2009). In her review of 'adaptive teaching', Corno (2008) remarks on the unpredictable and dynamic nature of teachers' practice in responding adaptively to pupils and supporting their learning: individual differences are most productively seen as 'opportunities for learning' rather than 'obstacles to be overcome' (p. 171). In such circumstances, differentiation is not a theoretical model or pre-established routine, but 'spontaneously responsive to the individuals in their particular classrooms at the particular moments of instruction that occurred' (p. 170). It is at such points that teachers' relevant professional knowledge may be

brought into play and then developed further on reflection about what occurred. Successful teachers constantly shift their attention between individuals, groups, the whole class, and the social world beyond school (Kershner, 2005). It is a professional skill to make sense of these different perspectives and explore the intersections in children's life experiences that may affect their development and learning. The challenge lies in combining approaches purposefully for different purposes (Florian & Kershner, 2009). This view is increasingly recognized in educational research. For instance, meta-analyses aiming for a 'best-evidence synthesis' have suggested the value of particular combinations of strategies, such as general classroom teaching and one-to-one tutoring to support 'struggling readers' (Slavin, Lake, Davis, & Madden, 2011). The actual choice and combination of teaching strategies then depends on meeting the multiple aims involved in teaching curricular material (Gersten, Baker, Pugach, Scanlon, & Chard, 2001). An appropriately complex understanding of human development confronts narrow views of the 'SEN pupil' by cutting across the boundaries of simple categorizations of difference and appealing for complex pedagogical responses.

TEACHERS' INDIVIDUAL AND COLLECTIVE KNOWLEDGE BUILDING

Experience and expertise

In developing robust professional understandings, there is a need for teachers not only to inquire into their own thinking and practice, but also to share their own experiences and employ their collective knowledge to influence wider opinion and research aims. A combination of active learning processes of scaffolding, collaboration and developing agency is involved in gaining the know-how of an expert teacher (Berliner, 2001). Experts may come to see and know a problem differently from novices; they make more accurate inferences, anticipate outcomes and hold a more global and functional view of the situation (p. 478). Expertise in teaching ultimately depends on having a deep, committed approach to professional learning, but this is not something that comes automatically with experience or something that is necessarily absent in novices. For beginning teachers, the cognitive demand of developing relevant knowledge, understanding and practical skill is accompanied by the social processes of professionalization as well as the intrinsic sense of vocational mission (Korthagen, 2004).

As teachers gain experience in the job it becomes clear that a wide range of factors may impinge on their professional knowledge and decision-making. In the USA context, for instance, Berry (2011) found that the advice offered by groups of experienced teachers to new colleagues teaching students identified with disabilities in inclusion contexts covered the topics of: instruction; knowing the child; training and resources; policies and procedures; classroom dynamics; communication with colleagues; building a sense of self; parent-teacher relationships; and understanding inclusion. While many of these topics focus on the practical 'how-to' of teaching, Berry points out that others highlight emotional coping, ethics and political knowledge. This reflects a view that the development of teachers' knowledge is connected to identity, attitude and emotional experience, representing a combination of 'knowing', 'doing' and 'believing' seen as central to professional learning in inclusive pedagogy (Florian & Rouse, 2010; Shulman, 2009).

Collaborative knowledge building

Collaboration in learning and knowledge building is fundamental to teachers' continuing professional growth (Lieberman & Miller, 2008). This can be incidental or more formalized. For instance, teachers may choose to participate in a forum or knowledge community in which the personal stories of teaching can be shared in order for professional knowledge to develop further (Olson & Craig, 2001; Savvidou, 2010). Many individual teachers find support in professional communities reaching beyond their individual schools, especially when isolated in their own contexts. An example is the SENCO-Forum email discussion group for SEN co-ordinators and interested colleagues established in England in 1996 (lists.education.gov.uk/mailman/listinfo/senco-forum). At the time of writing in 2012, posts on the forum range from urgent requests for advice about working with particular students, to resources for training teaching assistants, the validity of psychometric tests, and many more. The sheer pace of electronic discussion seems to match many teachers' needs for dialogue, information and support in 'real time', especially if isolated in their school.

Schools may assume and depend on professional collaboration to deal with the competing internal and external demands on teachers. Yet while changes and innovation provide many hypothetical opportunities for teachers' learning, the actual organizational conditions in schools may hinder the ways in which teachers' reflection can be truly evidence-based and collegial (Imants, 2002). In some cases, however, the prevailing national and local conditions may more clearly support teachers' collaborative learning. For instance, Rytivaara and Kershner's (2012) case study of two Finnish primary-school teachers involved in co-teaching a combined inclusive class of children identified their engagement in a process of joint knowledge construction that was grounded in their practice and dialogue. In a series of reflective interviews the teachers discussed the origins and circumstances of their knowledge-building. Specific examples focused on their original decision to start co-teaching, the subsequent introduction of a new form of class management based on 'learning styles', and the further development of a more inclusive cooperative learning pedagogy. Serendipitous course attendance and wider reading had an influence on teachers' thinking, and in turn the teachers wrote their own book and disseminated it more widely to professional colleagues. In this case, there was an integrated system of collaborative practice, information-gathering, dialogue and reflection in which the teachers' individual knowledge, motivation and experience came to be distributed between the two of them and more widely to colleagues. Of wider significance here is the degree to which the relative autonomy of teachers in Finland supported this sort of professional innovation, unlike the prevailing conditions in England at the time.

INCORPORATING NEW KNOWLEDGE AND UNDERSTANDING INTO TEACHING: THE CHALLENGE OF NEW SCIENTIFIC EVIDENCE

What works … and why?

As seen in the previous sections, teachers' individual and collective knowledge building is highly contextualized, but not closed to other ideas. Teachers may actively seek information, and there is no lack of specifically 'SEN-related' sources in professional publications, official reports, journal articles and online material (e.g., Contact a Family organization, www.cafamily.org.uk; Dittrich & Tutt, 2008; O'Regan, 2005; Smith & Tyler, 2011; Tommerdahl, 2009; and many more). In addition to this educational material, research findings in other fields are rapidly multiplying to provide increasingly subtle and complex understandings of

human development, education, society and culture. Somewhat confusingly, however, many research-based findings in the academic literature are presented to wider audiences as success stories of 'what happened' or simple descriptive conclusions, not least in newspaper reports of 'breakthroughs' in different fields. This can lead to a proliferation of contradictory and inaccurate ideas (Goldacre, 2009). Underpinning such stories are grand narrative constructs as well as particular discourses which need to be unpicked to allow teachers and others to make wise use of such material in practice. Yet it is intrinsically difficult to understand the alternative epistemologies within and between research and practice. 'Scientism' itself has been criticized for science's own impoverished appearance in performative decision-making and its apparent displacement of alternative humanistic perspectives on educational knowledge and practice (Bridges, 2011). Similar concerns about over-reliance on targets and narrow forms of 'evidence' have led others to advocate attention to the human narratives of professional experience as an alternative basis for evaluation and further professional development (e.g., Brophy, 2009).

Implications of causality and 'what works' call on teachers to understand the ways in which their own and other forms of knowledge are constructed and communicated in order properly to evaluate and apply research-based conclusions for particular purposes (Morrison, 2009). Genetic and other biological levels of analysis can seem very distant from understanding the actual child in class (Ellis, 2012; Morton, 2004). In contrast, explicitly bio-psycho-social models imply the need for an integrated view about causal mechanisms and multimodal interventions. These help to avoid the 'unhelpful polarity' between biological and social explanations of learning and behavioural problems in syndromes like ADHD (Cooper, 2005: p. 128). Cooper proposes that teachers need to assimilate an understanding of ADHD as a bio-psycho-social condition in which the institutional structure and practices of school may themselves be implicated.

Research-informed practice?

Researchers working in the fields of neuroscience, genetics and educational psychology therefore may need to be careful to discuss the *potential* use of research findings rather than the immediate and direct application of their work to educational practices (e.g., Goswami, 2004). This acknowledges the ways in which certain biological factors may interactively affect, but not determine, children's development, behaviour and learning in particular contexts, as seen in established 'transactional' models of child development which acknowledge the interaction of biological and environmental risk factors (Empson & Nabuzoka, 2004; Sameroff, 1995). Genetic differences are particularly problematic for connecting cause, diagnosis, identification of SEN, since the situation at birth does not entirely predict what happens in later life (Reilly, 2012). Yet there is an enduring appeal in the search for genetically-focused research studies that promise educational applications, and the research field is changing in this direction. Recent studies of children's 'differential susceptibility to the environment' in the research field of development and psychopathology aim to address children's apparent sensitivity to developmental experiences and context in terms of both biological reactivity to challenge and behavioural interactions in different social environments such as family life (Ellis & Boyce, 2011). As Heussler and Oliver (2011, p. 945) note, there is:

… an increase in the number of papers that refer explicitly to intervention for intellectual disability at a level other than behaviour change. This trend reflects and is driven by the greater clarity of understanding of the pathways from genetic disorder to central nervous system

development, to cognitive endophenotype, to behaviour and the interaction between behaviour and the immediate and remote environment. … [This] emphasises the need for models that: (1) have empirical support; (2) identify the pathways from biological disorder to behaviour; (3) have multiple levels of explanation; and (4) are set in a developmental context.

This is a large research agenda which may incorporate different types of study. To take just one example, Barr and Shields (2011) carried out an exploratory study involving 18 in-depth interviews with parents about barriers and facilitators to participation in physical activity for children with Down syndrome. Their findings pinpoint four main facilitation themes relating to: (1) the positive role of the family; (2) opportunity for social interaction with peers; (3) structured accessible programmes that make adaptations for children with Down syndrome; and (4) children who were determined to succeed and physically skilled. The barriers related to characteristics commonly associated with Down syndrome; competing family responsibilities; reduced physical or behavioural skills; and a lack of accessible programmes. The usefulness of such studies for teachers depends on finding meaningful points of contact between teachers' knowledge (in all its variety) and research findings which clearly contextualize children's development and offer access to understanding the complex links between biological and behaviour.

Barriers to interdisciplinary understanding

We need, however, to acknowledge certain barriers to the secure and critically informed understanding and use of such research by teachers, depending on the background and interests of the people involved. One problem is to do with the specialized field of knowledge about genetic and bio-psycho-social mechanisms of development, including recent discussions of epigenetics referring to the processes of physical change which explain why and how apparently identical genetic material is modified in life (e.g., Carey, 2011). A second barrier relates to the linguistic and social aspects of knowledge about genetics. The assumed determinism of genetic inheritance may be over-emphasised in the language used. For instance, Richardson (1998) draws attention back to the distinctively human nature of life experience in arguing that genes do not 'express themselves', but they:

… are best thought of as resources utilised by a dynamic system in a regulated manner. What we inherit from our parents is not just a set of genes, and not a genetic programme, but a whole developmental system which utilises genes as resources. (p. 58)

Informed critical reading is needed for teachers and parents to engage with biological research both sceptically and constructively, even with some relevant scientific knowledge. Researchers have warned, however, of a potentially diminishing pool of scientific understanding in the general public (Sturgis, Brunton-Smith, & Fife-Schaw, 2010). This may call not only for teachers' determined professional engagement with more explicitly argued work, but also for parents and children in general to become critically informed and able to participate in discussions about their educational experiences and needs (e.g., Wheeler, 2011, on understanding different perspectives on Asperger's syndrome).

  In conclusion to this section it is worth noting that equal attention could and should be given to other fields of study neighbouring education, such as sociology, political theory, economics, statistics and psychology to name a few. Some researchers' attention has turned to the need for a 'dialogic turn' in the communication of any research-based knowledge, questioning how knowledge can be co-produced by participants in

collaborative research as well as communicated by academic researchers to the 'target groups' of practitioners often seen as less powerful (Phillips, 2011, p. 81). This potentially has mutual benefits in building the knowledge-base essential for supporting all children's learning in school.

TEACHING CHILDREN IDENTIFIED WITH SPECIAL EDUCATIONAL NEEDS: SOME CORE ASPECTS OF KNOWLEDGE AND KNOWING

This chapter has focused on understanding how knowledge is created and used by teachers, and the importance of developing mutual understanding and dialogue within and beyond the teaching profession. A complete body of expert knowledge needed by teachers or applied by specialists in school cannot exist, but teachers can come to know about children, curriculum subjects, schools and themselves in ways that allow them effectively to support the learning of all children, groups and individuals. In conclusion, the following points are emphasized as core aspects of relevant knowledge and knowing: the complex construction and developmental nature of 'SEN'; the reflective and imaginative aspects of teaching pupils identified in this way; the sharing of knowledge with others involved; and the creation of new knowledge in the school context.

The importance of understanding child development and learning in context as a basis for understanding constructions of SEN

After several years in which the medical model in special education has been rejected by many as potentially damaging to children who may be unhelpfully labelled as being of limited capacity to learn, a key question now is how new 'bio-psycho-social' understandings of children's apparent differences can be securely incorporated into a more informed and critical educational knowledge-base. Lewis and Norwich (2005) argue that knowledge about the nature of certain 'special needs groups', may act as a 'filter through which the other forms of knowledge are seen' (p. 212). It would seem fundamentally important for teachers to have a clear understanding of the interactive processes of children's development and learning in the immediate and wider contexts of family, friends, school and community. This may specifically include the challenges likely to arise at particular points of development and life experience (e.g., Herbert, 2005), the ways in which certain tasks and priorities in school draw on different banks of professional knowledge about children and teaching (Eraut, 2009), and the perspectives of the students themselves (e.g., Diaz-Greenberg, Thousand, Cardelle-Elawar, & Nevin, 2000; Lewis, 2004; Wheeler, 2009).

Reflection and imagination: The value of knowing that you do not know everything, and believing that change is possible

There is some benefit in not hoping to know everything about SEN and how best to respond, thereby avoiding unhelpful assumptions. Teachers may hold a fundamental belief in the possibility of transformation in learning, requiring an imaginative understanding of how what happens in the present may affect a child's future (Hart et al., 2004). This implies the importance of suspending judgement about children's needs and holding back from acting until more information and resources are acquired. While much teaching benefits from drawing on previously accumulated knowledge and wisdom, some teaching requires a leap of imagination to break down unhelpful assumptions. Historical knowledge is needed and it can be inspiring:

Clarke and Clarke (2000), for example, helped to prompt current interests in resilience by using research to challenge the view that children's negative early experiences straightforwardly affect later life. Buckley, Bird and Byrne (1996) worked with parents to show that, rather than being 'ineducable', young children with Down syndrome can learn to read, and Feuerstein (1980) challenged the concepts of cultural deprivation and fixed intelligence with his work on dynamic assessment and mediated learning. Teachers may similarly experience creative breakthroughs and transformations in thinking which deserve consolidation in the profession and more widely.

The need to communicate understanding and resolve differences between the people who have useful knowledge: A relational process

There is a need for a shared language of teaching, developed jointly with teachers, if any useful progress is to be made in research on teachers' professional knowledge (Verloop et al., 2001). This is echoed in Geake's (2008, pp. 124–125) call for '… a mutually comprehensible language with which neuroscientists and educators can engage in a genuine interdisciplinary dialogue', so that neuroscientists can be '… professionally informative rather than prescriptive'.

One of the crucial supports for teachers' knowledge-building about SEN is the intrinsic expectation for collaborative teamwork in this field. The idea of needing to 'knowing how to know who' (Edwards, 2009) is powerful in emphasizing the value of people's open-minded, outward-looking capacity for mutuality and commitment to joint endeavour taking place over a period of time. Dialogue, collaboration and relationships within and beyond each school are central to the creation of new multi-professional understandings and tools for learning in the course of shared practical, purposeful activity. This is not to say that everyone involved in teaching pupils identified with SEN agrees with or even understands each other, given the intrinsic contradictions in pluralist systems of education. Genuine dilemmas, debates and discrepancies are found that represent real and justifiable differences in knowledge, understanding, values and preferences. Unawareness or simple acceptance of different discourses may unhelpfully fix assumptions about pupils' learning deficits and hinder further learning and school development (Paugh & Dudley-Marling, 2011; Säljö & Hjörne, 2009; Skidmore, 2004). Alternatively, the explicit acknowledgement of such differences can be productive in revealing specific tensions that can become the focus of dialogue and joint action by colleagues.

The need to recognize the school as a site for the development of teaching expertise and the creation of knowledge

Responding to pupils identified with SEN, like all teaching, depends on teachers' personal beliefs and motivations as well as their capacities for skilful, well-informed classroom practice. A sociocultural understanding of activity and learning raises awareness of schools as sites where collective knowledge is created in purposeful activity, with staff and pupils as potentially collaborative participants (Bruner, 1996; Daniels, 2001). Yet too great a focus on dealing with the immediate task may prevent more fundamental thinking about the wider context and possibilities. This is seen in the difficult balance between the long-term development of inclusion and the immediate responsibility to support particular children, given that cost-effectiveness is likely to be weighed against educational value in the real world of limited educational

resourcing (Higgins, Kokotsaki, & Coe, 2011). Teachers clearly gain from engaging in their own investigations of children's actual learning in school (e.g., Miles & Ainscow, 2011). This presents the possibility of moving more explicitly to Zeichner's (2007, p. 40) 'logical next step' of bringing together small-scale, highly contextualized practitioner studies together to build a broader knowledge-base and inform educational policy-making. The practice of teaching children identified with SEN in particular classrooms is informed by and in turn contributes to the collective knowledge base about what may be involved in teaching all children inclusively in the wider system.

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The Professional Knowledge of Inclusive Special Educators

Kari Nes

INTRODUCTION[1]

Despite ambitions to be more inclusive, many countries have seen an increase in the number of children identified as having special educational needs, often accompanied by a growth in less inclusive provisions, as is the case in my own country, Norway (Nordahl & Hausstätter, 2009). Slee (2011) calls this tendency a resilience of old forms of exclusion. In other countries, access to a quality educational environment that is responsive to individual learning needs is denied for many learners. Examples of exclusionary practices present challenges for the special education profession. What does it take to meet students' needs in situations like these? This chapter explores special-educator knowledge, and proposes a model of competences for the profession. Examples, mainly from Finland and other Nordic countries,[2] will be used in the discussion.

HOW TO DEFINE THE PROFESSIONAL KNOWLEDGE OF THE SPECIAL EDUCATOR

To the extent that special educators really are a profession, it is about an occupational group possessing and applying a certain body of knowledge, based on research. Professionals exert a mandate given them by society. Core assumptions in professionalization are that certain kinds of work are so specialized that a particular training and experience to do them is needed, but the work cannot be fully standardized, since the professionals implement the standards in autonomous ways in response to particular circumstances (Freidson, 2001). Much of this knowledge is not easily articulated and is often tacit (Polanyi, 2000).

An understanding of the competences required of the teaching profession in general, depends on a range of factors that also influence discussions about the competences of the special educator. These factors may include views about education and learning, the status of the teaching profession, available resources, traditions and culture and the broader societal context (European Union, 2011). So, what should the professional knowledge of special educators be like in a changing world?

Let us start by looking at prevailing paradigms in special educational knowledge. According to Gallagher (2006), special education, as it is still known in much of the world, originated in the 1960s. At its heart is the individual diagnosis and remediation of impairments and school problems. This psycho-medical paradigm (also known as a deficit or a categorical model) is linked to a positivist philosophy and research approach (Clark, Dyson, Millward, & Skidmore, 1995; Emanuelsson, Persson, & Rosenquist, 2001; Gallagher, 2006). According to such a model, the practitioner needs knowledge of assumed individual causes of educational failure, and how to identify and treat them.

What is called a relational model, or the socio-political or sociological paradigm, is seen as more appropriate for the inclusion vision (Clark et al., 1995; Emanuelsson et al., 2001). In this paradigm, disability is regarded not as an absolute, but as a mainly social and cultural construct which marginalizes people. In such a perspective, special education may contribute to the reproduction of social inequalities. A third paradigm, an organizational paradigm where the (re) structuring of schools is at stake, is also suggested by some (Clark et al., 1995). In this paradigm, school improvement and staff development are seen as important ways of supporting inclusion in education.

Various standards, study programmes and resources for special educators exist, for instance *What Every Special Educator Must Know*, a 300-page book from the Council of Exceptional Children (CEC) in the US (2009). I will not report its contents, but rather try briefly to outline some general tendencies to help form a picture of which knowledge is seen as relevant. In most countries, this knowledge is considered additional to the general knowledge of teachers. But the chosen policy in some countries or states (for instance in the US, or the German-speaking countries) is a separate special-educator preparation programme, not based on general teacher education, a model that 'can inhibit the inclusion of learners categorized as "special", simply because such special teachers may have no experience of mainstream schools and their demands and benefits' (Booth, Nes, & Strømstad, 2003, p. 166).

Building on Befring (1990), clearly inspired by Ryle (1963), the knowledge of the special educator might be seen as including these different forms of knowledge:

- 'Know why': the ideology of education (such as, aims, rights, ethics and expected outcomes).
- 'Know who': the demography of education (mapping the field, assessing and diagnosing).
- 'Know what': the psychology of education and the content of the lessons (development and learning; knowledge, skills and attitudes).
- 'Know how': the technology of education (skills, methods and technology).

Including the *why* questions in the body of knowledge places the above proposal partly within the socio-political paradigm, while most topics relate to a psycho-medical paradigm. However, the *who*, the *what* and the *how* issues seem to be most predominant in the prevailing programmes and standards, like the one from CEC.

In a study of university programmes, Hausstätter and Takala (2008) compared Finland and Norway. Three out of the five universities in Finland offering special-education courses were included in the study, and the authors found that most courses were identical in all the three universities. Included in these common courses were general issues like communication and collaboration in addition to high incidence 'special educational needs', such as reading, writing and mathematics difficulties, as well as social-emotional problems. Various specializations (diagnoses) and other issues were offered in addition. In many countries a picture like this is fairly typical, while the Norwegian study programmes show less coherence. Inclusion was not part of all the programmes in Finland, whereas in Norway and most other places, inclusion and other subjects related to the socio-political paradigm are part of the programme in special teacher education.

A PROFILE OF COMPETENCES FOR INCLUSIVE TEACHERS

A language of competences now seems to dominate policy documents about what teachers should know and be able to do (e.g., European Commission 2010; OECD, 2010a). However, the term 'competence' is not

necessarily a clear and neutral term to describe the qualities of teaching. According to Biesta (2009), there is a tension in the competence discourse between a behavioural approach that emphasizes 'doing, performing, achieving, observing, measuring and, ultimately, control', on the one hand, and an integrative approach such as that adopted by the European Commission (2011) that emphasizes 'knowledge, skills, understanding, values, purpose and, ultimately, teacher agency', on the other. Being able to do things is not enough, teachers need to exert professional judgement to decide what ought to be done. As Biesta argues, their teaching should rest on values and ideals, not only on what works.

The European Agency for Development in Special Needs Education (EADSNE) has recently reported on a project that examined issues of teacher education for inclusion across Europe (EADSNE, 2011). This project was stimulated in part by the Council of the European Union position that all teachers need to acquire competences which will enable them to 'teach effectively in heterogeneous classes of pupils from diverse social and cultural backgrounds and with a wide range of abilities and needs, including special education needs' (EADSNE, 2010, p. 17). With this demand in mind, the EADSNE (2012, p. 8) project asked: *What kind of teacher is needed for an inclusive society in a 21st century school? What are the essential teacher competences for inclusive education?* The questions do not concern particular groups of students with particular needs only, or certain teachers only, but all teachers, including special educators. The project aimed to answer these questions via the development of a profile of competences for inclusive teachers that might be useful in supporting the reform of initial teacher education programmes. The profile describes the competences that *all* teachers are thought to need, although *some* teachers will need more (cf. UNESCO, 2003a).

> The values and areas of competence that all teachers need to work in inclusive settings are not in contradiction to the specialist education and training for SNE (Special Needs Education) teachers who may support mainstream teachers in their work. These values and areas of competence are the foundations for all teachers' work – generalists, specialists and experts. (EADSNE, 2012, p. 15)

Building on research literature, international and national policy documents as well as experiences from the 25 participating countries, the Teacher Education for Inclusion (TE4I) project (EADSNE, 2012) developed a Profile of competences for inclusive teachers based on a set of core values. These are:

1. That learner difference is considered as a resource and an asset to education; it is about valuing learner diversity;
2. That high expectations for all learners' achievements are necessary; it is about supporting all learners;
3. That collaboration and teamwork are essential approaches for all teachers; it is about working with others;
4. That teaching is a learning activity and teachers take responsibility for their own lifelong learning; it is about continuing professional development.

Teacher competences are described in relation to each of the core values. There are two main areas of competences for each value, which are further specified as specific *knowledge, skills* and *attitudes* (EADSNE, 2012).

A NEW MODEL: A PROFILE OF COMPETENCES FOR INCLUSIVE SPECIAL EDUCATORS

The competences listed by TE4I are relevant even for the special educator. The question is: ~~are~~ which ~~there~~ additional knowledge, skills or understandings ~~that~~ may require attention? Closely linked to the TE4I model,

therefore, a *profile of competences for inclusive special educators* is suggested in Table 50.1. My additions to the original profile are in italics.

Aspects of the four core values, in particular value one, and their corresponding competences are discussed below. Examples of the associated attitudes, knowledge and skills are provided; the full list is available in the TE4I project report (EADSNE, 2012).

Table 50.1   Profile of competences for inclusive special educators

Core value	The areas of competence within this core value relate to:	Attitudes, knowledge and skills underpinning this area of competence
1. Valuing learner diversity – learner difference is considered as a resource and an asset to education.	1a) Conceptions of inclusive education.	Attitudes: Knowledge: Skills:
	1b) The teacher's view of learner difference.	*Attitudes:* Knowledge: *Skills:*
	1c) *Understandings of disability.*	*Attitudes:* *Knowledge:* *Skills:*
2. Supporting all learners – teachers have high expectations for all learners' achievements.	2a) Promoting the academic, social and emotional learning of all learners, *and especially those with considerable need of support.*	Attitudes: Knowledge: Skills:
	2b) Effective teaching approaches in *and outside* heterogeneous classes.	Attitudes: Knowledge: Skills:
3. Working with others – collaboration and teamwork are essential approaches for all teachers.	3a) Working with parents and families.	Attitudes: Knowledge: Skills:
	3b) Working with a range of other educational professionals.	Attitudes: Knowledge: Skills:
	3c) *Working with the (school) system.*	*Attitudes:* *Knowledge:* *Skills:*
4. Personal professional development – teaching is a learning activity and teachers take responsibility for their lifelong learning.	4a) Teachers as reflective practitioners.	Attitudes: Knowledge: Skills:
	4b) Initial education as foundation for professional learning and development	Attitudes: Knowledge: Skills:

Source: This table is a modified version of that which appears in European Agency for Development in Special Needs Education (2012). The phrases in italics have been added to the original profile. Used with permission.

1. Valuing learner diversity – Learner difference is considered as a resource and an asset to education

According to the TE4I project, two main fields of competence for any teacher when speaking about valuing pupil diversity are a) conceptions of inclusive education and b) views of learner difference. Here, a third field is added, c) understandings of disability, even if disability is part of learner difference. Since the notion of disability is so crucial to special education theory and practice, it is highlighted here more than in the list of

competences needed for all teachers.

a) Conceptions of inclusive education

Inclusive education is conceived in a variety of ways that the professionals need to be aware of, but in this model a wide non-categorical and system-oriented definition is applied, aligned with international definitions, such as the UNESCO (2008) policy. Inclusion then is not restricted to students with an impairment or a categorized learning problem or with a cultural minority background, but refers to all. The word is used first and foremost as an adjective, like in 'inclusive education', or as a noun, not as a verb (e.g., 'he is (not) included'). This is to emphasize the qualities of the learning environment as the key point; inclusive education is about increasing learning and participation for all (Booth & Ainscow, 2011).

Inclusive education is an ongoing process aimed at offering quality education for all while respecting diversity and the different needs and abilities, characteristics and learning expectations of the students and communities, eliminating all forms of discrimination (UNESCO, 2008).

b) Views of learner difference

Of particular interest for special educators is how learner differences are understood: are they for instance seen as automatically impeding learning, as is often the case? (Florian & Rouse, 2009) But, valuing learner diversity means 'challenging the construction of difference as deficit' (Cummins, 2003, p. 41) and teaching free from determinist beliefs about ability (Hart, Dixon, Drummond, & McIntyre, 2004). Further, seeing differences as opposites easily implies objectification, 'In binary thinking, one element is objectified as the other, and is viewed as an object to be manipulated and controlled' (Collins, 2000, p. 70). Rather, the attitude that the variations between the learners are enriching and should be valued, must be seen as fundamental by the inclusive teacher (Befring, 1997; Booth & Ainscow, 2011; EADSNE, 2011).

Which diversities are we talking about? Sometimes the notion diversity is restricted to cultural variations. Lists of 'diversities' occur in several policy papers about teachers' competences. Table 50.2 shows two examples, one from the Council of Europe (2009): 'Policies and practices for teaching sociocultural diversity', the other from OECD (2010a): 'Teacher Education for Diversity'.

The Council of Europe shows the broader approach, including for instance disability and gender, while the OECD project focuses on migration and cultural diversity only, admitting that:

> Although measures specifically targeting gender equality, anti-homophobia, the inclusion of students from disadvantaged social backgrounds or those with disabilities have different aims than the types of diversity policies (in this project), these diversity dimensions must also be considered in the *schooling of migrants*. (OECD, 2010, p. 47)

Interestingly, in his study of anthologies of social justice and multicultural education Connor (2012) shows how disability increasingly is understood as a minority model akin to other markers of identity, even if this is not (yet) the typical approach. However, listing of diversities is hardly the point; it may even have an exclusionary effect by detracting attention from valuing various kinds of differences and similarities between people.

Table 50.2   Which diversities?

Council of Europe (2009): 'Policies and practices for teaching sociocultural diversity'	OECD (2010a): 'Teacher Education for Diversity'
Cultural diversity	Religion
Linguistic diversity	Language
Religious diversity	Socio-economic status
Gender	Cultural values
Disability	
Sexual orientation	

An alternative approach to define what knowledge is relevant for teaching diverse learners is to start by looking, not at various 'diversities' or lists of difficulties in learning, but at *barriers to learning*. Anyone can experience such barriers. In the Scottish Code of Practice the following are mentioned as potentially experiencing barriers that require additional support for learning: those with identified impairments or learning difficulties, those who are bullied, talented, have English as an additional language, are on a child protection register, have experienced a bereavement, have emotional or social problems, have parents abusing substances, are young carers etc. (Scottish Government, 2010). This suggests that explanations of failure to learn may exist outside as well as inside the child, thereby moving beyond the psycho-medical towards a socio-political or relational paradigm. In the 'Index for Inclusion' the idea of identifying and overcoming barriers to learning and participation is crucial. The authors of the Index for Inclusion (Booth & Ainscow, 2011, p. 40) ask:

- What barriers to learning and participation arise within the school and its communities?
- Who experiences barriers to learning and participation?
- How can barriers to learning and participation be minimized?
- What resources to support learning and participation are available?
- How can additional resources to support learning and participation be mobilized?
- How should the resources to support learning and participation be deployed?

With the notion of barriers as the point of departure the professional (special) educators will need knowledge, attitudes and skills to answer the questions above. In our model in Table 50.1, specific attitudes, knowledge and skills underpinning this area of competence – views of learner difference – are suggested. Here are some examples (EADSNE, 2012, pp. 12–13):

- *Attitudes and beliefs*, e.g., Categorization and labelling of learners can have a negative impact upon learning opportunities.
- *Knowledge and understanding*, e.g., Learners can be used as a resource to facilitate learning about diversity for themselves and their peers.
- *Skills and abilities*, e.g., Addressing diversity in curriculum implementation.

c) Understandings of disability

Input to the special educator about disability knowledge, attitudes and skills has to be interdisciplinary. It can be found for instance in the history of the field, the oppression and discrimination in society, the social construction of disability, along with disability in the humanities, inspired by 'disability studies' (Ware, 2004, 2012). The field of 'disability studies' offers alternatives to assumptions based on what Ware calls the 'medical

sociological, and psychological cure/care narratives in education'. In disability studies critical explorations of disability in, for instance, history, arts, fiction, films, economics and social sciences[3] take place, aiming at displaying 'the *value* of disability as an unequivocal part of the human experience' (Ware, 2012, p. 657). With disability studies in education (DSE) arising as a scholarly field of its own, the paired concepts of disability and education are no longer limited to special education only (Connor, 2012; Connor, Gabe, Gallagher, & Morton, 2008).

The British tradition of sociology, as well as the disability rights movement, has had a strong influence on disability studies (e.g., Barton and Oliver, 1997; Tomlinson, 1982). Contributions from sociology comprise explorations of the effects of the intersections of ethnicity, class, gender, etc. in relation to disability and special education. Not least, philosophical and ethical issues are important for those who are 'remediating (fixing) other peoples' children', as put by Brantlinger (2006) in a book title. In this field, authors have described the experiences and the politics of vulnerability (Jouillen, 1995; Kirkebæk, 2010; Kristeva & Engebretsen, 2010). The professionals thus have the opportunity to draw on a broad range of accounts and analyses to inform their work as educators.

An interesting part of the professional knowledge may be insight into how different understandings of disability influence policy and practice in (special) education. An example of this is shown in a study comparing Finland and the US (Itkonen & Jahnukainen, 2010). There are many similarities, but also differences, between the two countries, not least that Finnish learners perform much better in the PISA (Program of International Student Assessment) tests, in fact better than nearly all countries taking part. Finland also has very low between-school variance and relatively little variability between strong and weak scores. This indicates that Finland's results are good seen from an equity point of view as well as for excellence (Anastasiou & Keller, 2011). Several authors claim that the way special education is organized is part of the explanation of this success (e.g., Kivirauma & Ruoho, 2007).

In Finland, a very large proportion of the learners (more than 30%) receive special education and additional support of some sort, most of them part-time and without any formal procedure or labelling. Disability labels or diagnoses are not used, unless there is an impairment or the learning problems are major. It is sufficient that a pupil, according to the teachers' professional judgement, needs special educational support. Since so many receive it, there seems to be little stigma associated with special education (Halinen & Järvinen, 2008). Most of the resources for special education are used in the first years at school, where the special educators are part of the staff. Meanwhile, in the US, a medical, diagnosis-driven model of disability is widespread, in which children who are referred to special education first go through an extensive assessment procedure to decide in which category they belong, if any. The system is legal and rights-based, while the Finnish system for part-time special education is purely educational (Itkonen & Jahnukainen, 2010).

Examples of attitudes, knowledge and skills underpinning the competence 'understandings of disability':

- *Attitudes and beliefs*, e.g., Disability is primarily recognized and valued as natural part of human diversity.
- *Knowledge and understanding*, e.g., Understanding the meaning of ableism.
- *Skills and abilities*, e.g., Students with an impairment are supported in the development of a positive disability identity.

2. Supporting all learners – Teachers have high expectations for all learners' achievements

'Supporting all learners' is the second value on which a profile of competences for all inclusive teachers should rest, according to TE4I. It means that teachers should be able to promote the academic and social learning of all learners, including those with considerable needs of support, who get special mention in our model (1a). Above, we have explored who this might be. Secondly, all teachers should possess knowledge of effective teaching approaches in heterogeneous classes (2b). For the special educator we should add knowledge of effective teaching approaches in various educational settings, within or outside heterogeneous classes, since a consideration of 'where' may sometimes be necessary for learners with or without diagnoses in a given school context, although all pupils belong in the common school. An example of additions that may be necessary for promoting learning for those with substantial need of support is communication skills with learners who do not speak. Other examples of specific knowledge and skills that may be needed for the special educator are, for instance, teaching children with major social or emotional problems or blindness or who need bilingual special education.

3. Working with others – Collaboration and teamwork are essential approaches for all teachers

All teachers in inclusive schools should possess competence not only in relating to children, but in collaborating with parents or carers and with other educational professionals. A child with an impairment may need support from a range of expertise or other staff, and it is essential that the professionals involved work together. In the model we have added *working with the (school) system* as an important field of competence as well, clearly within the organizational paradigm (Clark et al., 1995).

> Rather than being a marginal theme on how some learners can be integrated in the mainstream education, inclusive education is an approach that looks into how to transform education systems in order to respond to the diversity of learners. (UNESCO, 2003b, p. 7)

In Sweden, there has been a separation of special-educational tasks into two separate professions: one is *the special teacher*, whose tasks are linked to working with the learners in the classroom, cf. the diagnostic-prescriptive approach within the psycho-medical paradigm. The other profession is *the special educator*, whose main field of work is on a system and prevention level, as a SENCO (Special Education Needs Coordinator) developing the school as an organization, counselling other staff, etc. The study programmes for these two professions mirror this difference (Lindquist, Nilholm, Almqvist, & Wetso, 2011).

Examples of attitudes, knowledge and skills underpinning the competences of working with others and with the school as a system (cf. EADSNE, 2012), are:

- *Attitudes and beliefs*, e.g., Respect for the cultural and social backgrounds and perspectives of parents and families.
- *Knowledge and understanding*, e.g., Principles of school development.
- *Skills and abilities*, e.g., Counselling colleagues.

4. Personal professional development – Teaching is a learning activity and teachers take responsibility for their lifelong learning

According to this model, for teaching staff to look upon themselves as continuous learners is an attitude for inclusive teaching practice. The areas of competence within this core value relate to teachers as reflective

practitioners and to initial teacher education as a foundation for ongoing professional development. Formalized learning may take place in-service or in higher education institutions, informal learning takes place everywhere, all the time. Examples of attitudes, knowledge and skills underpinning this area of competence are (EADSNE, 2010, p. 17):

- *Attitudes and beliefs*, e.g., Teaching is a problem solving activity that requires on-going and systematic planning, evaluation, reflection and then modified action.
- *Knowledge and understanding*, e.g., What makes a reflective practitioner and how personal reflection on and in action can be developed.
- *Skills and abilities*, e.g., Flexibility in teaching strategies that promote innovation and personal learning.

Before moving on to the concluding remarks, it is essential to note that the suggestions in the model are just that – suggestions – meant to be discussed and further developed by people reading them.

CONCLUSION

In special education, the *how* questions, i.e., the methods of teaching, are usually given more attention than *what* is being taught. Familiarity with prior knowledge, history, experiences and language of the learners, helps to identify relevant curricular content. Motivation for learning is then likely to be enhanced (UNESCO, 2001). Mikael Niemi grew up in a Finnish cultural minority in Northern Sweden:

> It was an upbringing of deficiency. […] We were nobody. Our parents were nobody. Our ancestors had meant nothing to Swedish history. Our surnames could not be spelt, far less pronounced by the few deputy teachers who came up from the real Sweden. (Niemi, 2000, p. 49, my translation)

The prior knowledge of the learners Niemi is referring to was not at all appreciated. This cultural deficiency view in combination with a deficiency orientation in special education is in my view particularly damaging for the most vulnerable pupils. A dialogue between the different traditions of educational theory in the European continental tradition, where 'Didaktik' is a core concept,[4] and the Anglo-American 'curriculum' tradition may inform the discussions about the *why, what* and *how* issues in (special) education. Didaktik in its widest sense includes most aspects of theory as well as practice about teaching and learning (Gundem, 2011). While 'curriculum' mainly refers to the behavioural or exact sciences ('Naturwissenschaften') like psychology, 'Didaktik' rests heavily upon human sciences ('Geisteswissenschaften'), like philosophy and history (values, ethics). Within Didaktik, the idea of 'Bildung' (formation) is essential, based on a view of the self-responsible and socially-aware person contributing to his or her own destiny and capable of both knowing, feeling and acting (Gundem & Hopmann, 1998; Klafki, 1995). The notion of empowerment may be a parallel. This is a kind of individual approach that totally differs from a deficiency perspective. Despite impairments or other experienced barriers, pupils in special education and their carers are entitled to be respected as capable persons. To what extent are their voices and experiences taken into account in school? How can they become real participants? How can for instance a 'Bildung' perspective contribute to this? 'Special education without including the stakeholders' perspectives risks becoming education for special professionals' (Kirkebæk, 2010, pp. 214–215, my translation).

When exerting the 'why', 'who', 'what' and 'how' knowledge, special educators as professionals have to follow rules, but they still have a moral obligation for their decisions, for instance for how their testing and

assessments may be used for sorting and segregating pupils. Historically, many examples exist of how the benevolence of the professions has supported discriminative practice, for instance how the test result IQ 59 or less for Romani girls in Norway automatically lead to their 'rescue', sterilization and institutionalization (Pihl, 2010). But some professionals boycotted the system and helped the girls to perform 60 or more. According to Ravneberg (2003), the special education profession has had an ambivalent function: on the one side as disciplining and correcting, on the other as a potentially liberating force for individuals. Today the situation for Roma people in many European countries is an example of marginalization and discrimination. Through 'collective indifference' (Slee, 2011) we risk closing our eyes to the injustices. Ethical consciousness and conscience is needed at all times for professionals, not least for those with a special responsibility for the most vulnerable and disadvantaged. At a societal level examining professional vested interest is increasingly important as numbers of groups claiming to deal with the special increase (Tomlinson, 2012). A continuous critical eye on professional practice is necessary for the individual and for society. More historical and contemporary research on the role of the professions is required for that.

NOTES

1 I am grateful to the European Agency for Development in Special Needs Education for permission to use and adapt extracts from the Profile of Inclusive Teachers here. The interpretation of the Profile is mine alone and does not imply the endorsement of the Agency.

2 *The Nordic countries* usually comprises Denmark, Finland, Iceland, Norway and Sweden.

3 'Disability studies' sometimes refers only to the humanities.

4 The notion 'Didaktik' is frequently used in German-speaking countries, where it originated, and in the Nordic countries and France ('didactique') (Gundem & Hopmann, 1998).

ACKNOWLEDGEMENT

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Inquiry and Community: Uncommon Opportunities to Enrich Professional Development for Inclusion

Marleen C. Pugach and Linda P. Blanton

Moving inclusive education forward relies heavily on the continuing development of practicing teachers – not only because of their direct impact on students who are marginalized, but also because it is within the world of practice that the next generation of teachers puts into place both the values and skills of teaching inclusively. This chapter takes up the issue of the professional development (PD) of teachers for inclusive education, and specifically the degree to which relatively robust approaches to professional development have or have not been fully drawn upon as part of the work of supporting inclusive education. Despite the longstanding international commitment to inclusive education, PD to achieve this goal has been inconsistent, and often only loosely coupled with theory and practice in the development of practicing teachers.

One of the major challenges in the PD of teachers for inclusion is that it must create change at multiple levels (i.e., school level, individual teacher level) and across multiple disciplines (e.g., general education and special education, academic disciplines, bilingual and ESL education). This places the concept of PD for inclusion at the intersection of organizational change and individual teacher change (Ainscow, 2007). Addressing this multiplicity of levels and disciplines is essential for creating and sustaining schools that support the needs of students who have been marginalized and not served well, among them students who have disabilities. Organizationally, such a shift means enacting a fundamental philosophical position that every child belongs and that every teacher is a teacher of every child – even though specific assistance and expertise may be needed to fully serve a particular student. In addition, within each school organization, what is required teacher by teacher is the development and supported implementation of new instructional skills, creating ways of embedding these specific skills into broader child-centered, progressive education goals and having the two co-exist to support the philosophy of inclusion (Kugelmass, 2001).

The central argument in this chapter is that within the landscape of PD, there have been missed opportunities in moving inclusion forward. These missed opportunities exist either because (a) when PD has been linked explicitly to and/or driven by inclusive education, specific approaches may not have been used to fully engage teachers in directing and supporting their own development, or (b) when PD efforts have high potential for supporting inclusive education, they have often not been linked explicitly to this goal. Further, this analytic framework of missed opportunities appears to apply to PD for inclusion internationally.

In addressing what may have been neglected or under-addressed, inquiring into the limitations of PD for inclusive education is important because it has the potential to clarify where the deep structural divide between general and special education may still be operating, even when inclusive education is the goal. It may also suggest ways to address making PD more robust by problematizing how to embed teacher development specifically about students who have disabilities into the larger educational discourse about serving students who struggle and the complexities of building an inclusive school. This challenge related to inclusive

education is based on an increasing recognition that the needs of students who have disabilities are not one-dimensional, but rather are complex and defined by their multiple, intersecting identities – as students of color, as gendered students, as students of low socioeconomic status, and/or as students who may be English Learners.

The goal of this chapter is to think more deliberately about how major PD approaches that have been underutilized can be leveraged to support inclusive practice. Two such PD approaches are explored: *practitioner inquiry*, often known as action research or teacher research; and *professional learning communities*, or PLCs, a broad term which encompasses communities of practice, communities of learners, and teacher communities.

PRACTITIONER RESEARCH TO PROMOTE INCLUSIVE SCHOOL PRACTICE

How much and in what ways has practitioner research, commonly viewed as an effective PD approach that supports improvements in teacher practice, been used as a framework for teacher development specifically in relationship to inclusive education? Practitioner research is centrally concerned with teacher agency in the change process. It is a PD strategy that engages teachers themselves in generating and drawing upon knowledge from their own practice as a legitimate source of knowledge for the improvement of education, thus reshaping the dominant knowledge hierarchy in which practitioners are typically neither thought of nor viewed legitimately as knowledge generators (Cochran-Smith & Lytle, 1993, 2009; Pine, 2009).

As early as 1990, in the US, Pugach and Johnson (1990) called for action research to be considered as an alternative paradigm for changing teacher practice in relationship to better serving students who have disabilities in general education settings. They argued that action research had the potential to solve the problem of teacher engagement in the process of improving their own practice with struggling students and might help overcome, in an organic way, teacher resistance to change. Pugach and Johnson (1990) further suggested that an action research approach might be most effective when all practitioners – general and special education teachers alike – are put in the position of working on improving their own practice, instead of focusing on fixing the problems in the practice of general education teachers. Consistent with the roots of action research as placing agency in the hands of practitioners, Pugach and Johnson (1990) viewed this approach to PD as a potentially democratizing force in what was then a longstanding, top-down expert model of problem solving and consultation.

Subsequent to this early discussion regarding the potential of an action research approach to supporting students who have disabilities, practitioner research has appeared episodically in the literature on inclusive education. For example, Welch and Chisholm (1994) used action research to implement a research-based strategy in writing with elementary aged students. In 1998, a special section on participatory action research (PAR) appeared in the *Journal of the Association for the Severely Handicapped* (now *Research and Practice for Persons with Severe Disabilities*). Common across these studies was, once the overall focus of the research had been established, a commitment to the direct involvement of family, student, or teacher stakeholders as part of the project, with the goal of a high level of participation of stakeholders in closing the research to practice gap (Meyer, Park, Grenot-Scheyer, Schwartz, & Harry, 1998; Park, Meyer, & Goetz, 1998; Turnbull, Friesen, & Ramirez, 1998). For example, Meyer et al. (1998) presented PAR as a solution to the problem of putting

research into practice by involving family members – sometimes as paid research observers, as co-researchers, or as member-checkers against emerging interpretations of data. Santelli, DiVenere, and Singer (1998) included parents as partners in the formal evaluation of a support program for families of children who have disabilities. Park et al. (1998) developed constituent workgroups to foster social inclusion of students in transitional work program sites. In contrast, Salisbury, Wilson, and Palumbaro (1998) implemented a traditional action research model to help develop a school culture within which multiple instances of individual teacher change were accomplished by both general and special education teachers, specifically for students who had moderate to severe disabilities. They were particularly interested in teacher agency and eventually named their approach *practitioner-directed inquiry* (Salisbury et al., 1998).

In general, PAR is recognized as a particular instance of practitioner inquiry that is characterized by an explicitly empowerment-oriented, emancipatory, social activist agenda, and where practitioners are co-researchers (Bruce & Pine, 2010; Pine, 2009). The emancipatory goal, the premise of empowering marginalized groups, and a more democratic vision of education are viewed as prominent from the initial conceptualization of a PAR project. The studies reported as part of this special issue paid close and very important attention to the participation of stakeholders in joint, constituent research teams. At the same time, on the whole these projects seemed to be defined by the participation of co-researchers in a project that was largely conceptualized already and that was conducted generally within the framework of formal academic research, but in which some changes were made as a result of the co-researchers' participation. The assumption operating seemed to be that the presence of participant co-researchers was the essential criterion for identifying the study as PAR; closing the research-to-practice gap (another important goal) appeared to outweigh attention to the concept of empowerment. Likewise, although it is an important example of focusing teachers' efforts on students with more challenging disabilities, the Salisbury et al. (1998) teacher action research study does not reflect a primary concern with empowerment or social justice. Therefore, although these studies all make important contributions, they seem to be defining PAR interchangeably as (1) co-researchers participating in a university-initiated project, or (2) traditional action research as compared with research that has a strong and dedicated empowerment goal.

Related to this definitional issue is a US study by Dymond and colleagues (2006), in which Universal Design for Learning (UDL) was implemented in a secondary science course using a collaborative school-university research team that included general and special education teachers, framed as PAR based on collaboration and the need for practitioner input. In this study, the university research team designed the research and practitioner team members helped refine it; this approach calls into question how the role of teacher agency and teacher knowledge generation were conceptualized. Dymond (2001) also applied what was referred to as a PAR model specifically in evaluating school-wide programs of inclusive education by including participants in every phase. This evaluation model is consistent with more general naturalistic approaches to program evaluation, such as those advocated by Patton (2002).

Similar to the articles described earlier, these two studies lacked the overarching empowerment emphasis that is foundational to a classic PAR approach. It is important to reiterate the value in these studies of having practitioners serve as co-researchers or as the action researchers (as in the Salisbury et al., 1998, study). But they did not seem to go far enough in emphasizing or in fully enacting the question of who owns and can be the source of knowledge for teaching, which is one of the central arguments for action research (Cochran-

Smith & Lytle, 1993, 2009).

In the US, then, practitioner inquiry has had a limited place in the teacher development literature related to inclusion, and has been defined inconsistently. When it has been used, the results appear to be positive, but the purposes of each particular interpretation of practitioner inquiry are perhaps less clear. For example, the difference between having practitioners (and/or students and parents) *participate* in action research, and *participatory action research that explicitly addresses questions of empowerment for oppressed, marginalized groups*, requires clarification. A second area needing clarification is the relationship between action research defined as practitioner agency and action research defined as a means to implement a particular, pre-identified research strategy. It is important to note that both of these concerns may be viable reasons for engaging the action research process; however, they are not interchangeable in meaning. For example, engaging practitioners in the process of implementing a particular research strategy in a local context may be more consistent with the PD literature that contrasts 'one-shot' after-school workshops with having teachers participate in, deliberately practice, and get feedback on how they are implementing a particular research practice.

Also, it is important to continue documenting whether teachers and teacher educators across general *and* special education are participating in practitioner inquiry. For example, if special education faculty develop and suggest what is to be implemented without the participation of general teacher education faculty, this can be viewed as being inconsistent with a collaborative community approach to action research (Pine, 2009) as well as inconsistent with fully promoting inclusive education, even if both general and special education teachers are participating in the implementation in schools.

Further, how researchers are defining the specific issues of empowerment that are driving the use of PAR in inclusive education is an important framing task. For example, students themselves can be viewed as central to the conduct of PARI (Weis & Fine, 2004) through what is known as Youth Participatory Action Research, or YPAR (Cammarota & Fine, 2008). But if this emancipatory orientation is not explicitly named, a true PAR perspective may not be in place despite a research structure that includes participants.

Finally, the scope of how practitioner inquiry can be used requires exploration. For example, a recent treatment of action research in the US related to special education is a text by Bruce and Pine (2010). These authors suggest that the primary use of action research in special education is the case study, due to its potential to focus teacher inquiry on solving the problems of individual students. Drawing on action research to facilitate several other goals, inclusive education among them, is mentioned, but is subordinate to its suggested use for individual case studies. While it is entirely appropriate to directly connect action research to solving the problems of individual students, it is interesting that the strong empowerment emphasis that appears in Pine's earlier work on action research (Pine, 2009) is not readily evident in its application to special education, and also that school-wide approaches are not given more weight.

In the UK, action research for inclusion has been promulgated through the use of nationally-funded collaborative school-university action research networks (Ainscow, Booth, & Dyson, 2004; Ainscow, Howes, Farrell, & Frankham, 2003) that work toward transforming school cultures. Using Wenger's (1998) theory of communities of practice to focus on individual teacher development within the context of the school, these networks are based on integrating action research, university-school partnerships, data-based decision-making, and school change dynamics to focus school-wide attention on the question of how best to serve any student who is marginalized. This systemic, integrated change approach is positioned by the authors as an

alternative to 'recipes' for solving the problems of students who have disabilities, taking into account the multiple levels on which change needs to occur in schools to support inclusive education.

The focus of these partnership networks is to teach teachers how to use the data generated through their own practice, school-wide data, and formal research-based data generated by university researchers, to focus a lens on students who are marginalized, not solely on students who have disabilities (Ainscow et al., 2003, 2004). Within this reciprocal relationship between practitioner and university researchers, the goal is to enact whole-school change – although schools vary in the scope of projects they have taken on through network membership. Ainscow et al. (2003) and Ainscow (2007) connect their model to communities of practice as described by Wenger (1998), and argue that it is within school-wide communities that change toward more inclusive practice will take place. Even though Ainscow and his colleagues (2003) identify 'the agendas of practitioners' (p. 229) as an important goal, they remain somewhat restrictive in supporting individual teacher agency compared to action research advocates such as Cochran-Smith and Lytle (1993, 2009). As noted above, the origins of action research lie with placing agency in the hands of practitioners to generate valuable and respected knowledge from their practice. Ainscow et al. (2003) argue that such individual teacher agency can be problematic because, in an attempt to focus on diffuse problems that interest individual teachers, such efforts may not be powerful in contributing to a more focused goal for change, for example, a shift to school-wide inclusion. With Wenger's work driving their model, and the limited role of teacher agency, action research seems to play a relatively narrowly defined role in the set of activities implemented to lead to building community for school-wide change.

Features of the Ainscow model have been drawn upon to drive school change for inclusion outside of the UK, as, for example, in a partnership between one university and one primary school in Australia (Carrington & Robinson, 2004). In addition, Tangen (2005) reported on a national initiative for inclusion in Norway in secondary and vocational schools that adapted many of the teacher development practices advocated by Ainscow et al. (2003), but which used case-based learning as the primary means of supporting teacher growth. Also in Europe, Lloyd (2002) successfully used a critical action research framework, emphasizing teacher agency and an emancipatory perspective on the primary role of teachers in transforming practice, to work with a group of Dutch special educational needs teachers enrolled in a master's program in the UK that emphasized inclusive practice. Finally, in a small, school-based network in Greece, Argyropoulos and Nikolaraizi (2009) described collaborative action research specifically focused on meeting the needs of students with low incidence disabilities – one with a hearing impairment and one with a visual impairment.

Taken together, these studies suggest that the special education community as a whole, internationally, places some value on the implementation of practitioner research in relationship to an inclusive education agenda. The range of purpose, however, appears quite wide and the use of practitioner research appears to be both inconsistent in scope and underutilized. In the US, for example, practitioner inquiry has been taken up individually or by small groups of researchers, less as a systemic change strategy than as an approach to solving specific problems or implementing specific PD practices, but importantly, often in collaborative partnership between teachers and universities. This addresses one very important aspect of PD, that is, microscopic changes that need to occur in individual practice. Interestingly, Pine (2009), in describing action research generally as a paradigm for generating practice-based knowledge, supported it as a school-wide PD approach. But as noted earlier, when subsequently applied to special education (Bruce & Pine, 2010), action research as

a school-wide PD strategy was not widely promoted; rather, Bruce and Pine (2010) favored more individual, student-focused projects. Such individually-focused projects, found primarily in the US action research literature on inclusion, and also in the Argyropoulos and Nikolaraizi (2009) study, indicate the potential of action research to assist teachers in improving the educational situation for specific focal students about whom they are concerned. Individual changes such as these, however crucial they may be, represent small-scale approaches to building inclusive schools. In taking a more systemic approach, Ainscow et al. (2003, 2004) have worked from a school-wide perspective more closely aligned with professional learning communities.

Practitioner inquiry has the potential to be used to foster school-wide change, but its more nuanced use as an empowerment strategy both for teachers and for participants (and especially students) also has the potential to strengthen its value as a lever for change. Inclusion at its heart is an issue of how to address the marginalization of students – particularly students who have disabilities – and the need for equity. Making explicit connections between teacher agency as a means of promoting equitable, inclusive schools, and attending to the specific, individual needs of students who have disabilities, is where growth and expansion need to occur. Even when a commitment to the empowerment of marginalized students is central to the philosophy of a school that is in operation, how to meet the individual needs of students with disabilities within that empowerment framework can represent a major challenge. In Kugelmass' (2001) study, for example, a focus on inclusion finally resulted in the school's ability to explicitly tie meeting the needs of individual students who have disabilities to a progressive, democratic, and empowerment agenda the school's teachers had always valued. To have maximal influence as a means of supporting inclusive education, it is likely that the full span of practitioner research will be required. Accurately breaking down the various subcategories of practitioner research and applying them appropriately across a range of problems and settings should aide in attaining this goal.

PROFESSIONAL LEARNING COMMUNITIES TO PROMOTE INCLUSIVE SCHOOL PRACTICES

The extent to which *professional learning communities* (PLC) are included as a primary form of PD for teachers internationally is uncertain; however, in their review of PLC literature, Stoll, Bolam, McMahon, Wallace, and Thomas (2006) reported that this practice represents 'a "hot topic" in many countries' (p. 221). PLCs became central to school improvement in the US when reform efforts shifted in the 1980s to a greater emphasis on school culture (e.g., Bruner, 1996; Fullan, 1993) and collegiality and collaboration (e.g., Hargreaves, 1991; Rosenholtz, 1989). A similar trend occurred in European countries (European Commission, 2010). Although a variety of terms (e.g., communities of practice, teacher community) have been used when referring to school environments where teachers work collaboratively to improve their own practice and the learning of their students (e.g., Grossman, Wineburg, & Woolworth, 2001; Westheimer, 2008), the term PLC appears to be used commonly in literature internationally (e.g., Bolam et al., 2005; European Commission, 2010; Sigurdardottir, 2010) and it is the term used in this chapter.

In the US, PLCs seem to be absent from current policy discussions about how such communities can be used to support the PD of teachers for inclusive school practice. This also seems to be the case in other countries, as suggested by Sargent and Hannum (2009), in stating that 'scholars studying teacher professional practices around the world have noted the variation in the degree to which educational systems support

teacher collaboration and the development of teacher professional learning communities' (p. 259). Omitting PLC's from policy discussions connected to inclusive school practice seems shortsighted for several reasons. First, contemporary views of PD have maintained the importance of situating PD in practice, with a focus on student learning, and anchored in PLCs (Whitcomb, Borko, & Liston, 2009). Second, in today's policy context, for example in the US, teachers in general and special education are expected to implement school-wide reform initiatives such as Response to Intervention (RTI) to meet the needs of students who struggle in schools, including those who have disabilities. With collaboration not only as a cornerstone of PLCs, but also underlying RTI in the US, what promise does the implementation of PLCs hold as a major form of PD to enhance inclusive school practice?

In a review of research on the extent to which PLCs addressed special education, Blanton and Perez (2011) found that most studies on PLCs, even when they were implemented school-wide, rarely acknowledged special education issues. This is consistent with research showing that special education is infrequently mentioned and is not generally a part of research on school reform (Koh & Robertson, 2003). Of the studies identified in the Blanton and Perez (2011) review, one older study (Englert & Tarrant, 1995) specifically examined special education teachers' practices as part of their work in a PLC. These researchers found that, similar to research findings with general education teachers, special education teachers' instructional practices, as well as their talk about instruction, improved during the time they were part of a PLC. For example, literacy practices were enriched from a small number of instructional practices to a wide variety of interactive strategies and the teachers' talk about literacy instruction was found to be at a deeper level as demonstrated by their discussions of the theoretical underpinnings of the instruction they used.

Although most research on PLCs has not been designed to address special education, the findings of several studies indicate that PLCs are a promising approach for bringing isolated special education teachers into the community of all teachers in schools (Blanton & Perez, 2011). For example, in a study by Grossman et al. (2001), one of the 23 teachers in this 18-month study was a special education teacher. Although the special education teacher was peripheral to the community of teachers in the early stages of the PLC, the teacher became centrally involved later in the development of the PLC. Other studies (e.g., Curry, 2008) have revealed similar patterns with teachers who are the lone teacher either in the school or in a specific area of study (e.g., journalism). Further, the investigation conducted by Curry (2008) found that teacher involvement in a PLC opened doors to discussions among teachers that might otherwise have been difficult, especially on topics such as tracking and inclusion. Such findings support the potential, when used explicitly, for PLCs to be a powerful PD approach for inclusive practice.

Findings from research on PLCs have also indicated that these communities of teachers are instrumental in improving student outcomes, especially for students who struggle academically (e.g., Hipp, Huffman, Pankake, & Olivier, 2008; Sigurdardottir, 2010; Stoll et al., 2006; Vescio, Ross, & Adams, 2008; Wood, 2007). While studies are not always clear about whether the struggling students in the study were also labeled for special education, what does surface clearly in this research is that the longer a PLC remains in place, the more focused teachers become on student learning (e.g., Wood, 2007). Such findings are consistent with investigations that have examined why some schools are highly successful at improving the academic achievement of all the students in the school, including those who have disabilities. For example, in a study by Caron and McLaughlin (2002), general and special education teachers in successful schools were found to

work closely together and made it their shared responsibility to improve the achievement of all the students with whom they worked.

In looking more closely at research to understand the practices of teachers in PLCs that may be contributing to improved student achievement, it appears that as teachers focus more on students who struggle, they begin to engage in data-driven dialogue (e.g., Strahan, 2003). So not only does participating in PLCs change school cultures by focusing on student learning and debating difficult issues more openly, but teachers also appear to work collectively with data for making decisions about their instruction. Such findings suggest that PLC-driven PD might contribute not only to meeting the needs of all the students in a school, but also to meeting the demands on teachers and schools in today's current policy-driven context to hold teachers and schools accountable for the achievement of all students – chief among them students who have disabilities. For this to occur, however, school leaders – whose roles are central to how cultures develop in schools (Correa & Wagner, 2011) – may need explicit strategies gleaned from research and practice on how to initiate and sustain PLCs. Such strategies have been summarized in multiple sources (e.g., Blanton & Perez, 2011; DuFour & Eaker, 1998; Eaker & Keating, 2008) and include making resources (e.g., meeting space) available to support teacher collaboration, using assessment data to discuss successes and challenges for all the students in a school, maintaining a nonthreatening environment for teachers, holding high expectations for all teachers in the school, and understanding how to manage the inevitable conflicts that will occur in any PLC.

The findings of research suggest that PLCs have great potential as a dominant PD approach for supporting schools to implement inclusive practices. Although some scholars in special education have called for the use of teacher communities to drive reform efforts for inclusive practice (e.g., Dukes & Lamar-Dukes, 2007; Peters, 2002), these calls have not taken root in policy circles. As noted by Westheimer (2008), 'A variety of school reform efforts depend on teachers' ability to work with and learn from colleagues' (p. 776). The current focus in the US on RTI, for example, is no exception and speaks to a critical point made by Westheimer, who argues that teachers, both general education and special education, must work together to achieve the goal of inclusive practice.

If the reform itself is the goal, such as RTI, capacity building for future growth and change is limited. Therefore, rather than focusing PD on a specific special education reform, as often seems to be the case, PD might better be focused on how communities of teachers are supported by school leaders, via practices such as PLCs, to implement multiple reforms (RTI among them) that can lead more directly to inclusive environments.

CONCLUSION

A focus on organizational culture is critical to the question of how to move inclusive education forward. How one defines the ways in which organizational culture is transformed, however, is a complex question and is not easily addressed in the absence of individual teacher change and the powerful influence of teachers – both general and special – on school reform for inclusive practice. Both teacher inquiry and PLCs offer opportunities to drive PD and place teachers at the very core of school reform for inclusive education. In so doing, they also have the potential to reduce the structural divide between general and special education. In some reform efforts in the US, for example, school improvement for the purpose of inclusion is referred to as

'integrated', meaning that special education personnel are *required* to be involved in meetings and activities (Muller & Burdette, 2007). But using the discourse of a 'mandate to participate' may only reify the structural divide between general and special education. As suggested in research on PLCs, requiring the involvement of teachers in a community is not likely to produce the buy-in and outcomes that would build capacity for inclusive education to move forward.

Both practitioner inquiry and PLCs, or a combination of the two as a PD framework, can enable reform efforts to move back and forth from skill to philosophy, from classroom to school, from teacher to teacher teams, all of which are crucial to building inclusive schools. This approach can also enable school reform to move beyond country-specific responses and policies that may have value but that are tied to a specific legislative framework that does not translate across international boundaries.

But if inclusive education is to live up to its potential within such a framework, the issue of the intersection of disability and students' full complements of diversity will also need deep consideration. To initiate school transformation for inclusion, PD frameworks cannot focus simply on supporting students with disabilities. Instead, they must take into account the intersection of students' cultural, language, and socioeconomic backgrounds within which disabilities exist. The multiple definitions of inclusive education itself (Artiles, Kozleski, & Waitoller, 2011) suggest that in any PD activity, the explicit relationships among disability and diversity of race, class, culture, and language should be identified as part of the PD process. The approach to PD itself, then, needs to be inclusive not only of multiple levels of necessary/potential change, but also of definitions of inclusion itself, and how they relate to one another within students, within individual teacher practice, and across a school's culture.

With regard to action research for inclusive education, for example, Ainscow et al., (2003, 2004) define inclusion broadly to include any student who is marginalized, acknowledging that efforts in moving a school towards inclusion must not be limited to meeting the needs of students who have disabilities. Examples of how the communities in their collaborative partnership networks specifically address the intersection of race, class, culture, language and ability, however, are not offered, and could provide valuable direction to educators who may need a vision for how to assure that disability is placed within the broader socio-cultural context and philosophical practices of the schools. Likewise, with regard to PLCs, their capacity to be successful in addressing struggling students has rarely explicitly acknowledged disability as part of the community of struggling students or directed its attention in this direction. In other words, it is not only critical that disability become a transparent part of the discourse of PD, but also that issues of disability are explicitly embedded in the discourse of the dynamics of the entire school as it engages in change. In the absence of explicit attention to the place and instruction of students who have disabilities within the school change commitment as a whole, the longstanding divide that exists between general and special education is likely to continue.

Supporting PD that builds a strong relationship between general and special education as a solid and unified professional community within a school does not negate either the need for specialists or for PD that is directly related to specialists' work. However, in the absence of full joint participation in a professional community, specialization runs the risk of continuing to exist decontextualized from the very community in which students and teachers function on a day-to-day basis. When the default dynamic is 'reminding' school staff about special education, the structural divide cannot help but be reinforced. When only some teachers

participate in action research, and they are usually general education teachers, the divide is again reinforced, because it implies that only general education teachers need to inquire into their practice. However, when disability itself is viewed as an integrated part of the discourse of meeting the needs of students who have been marginalized, and teachers begin to see their own concerns and deepest challenges – across general and special education alike – within a shared context, progress towards inclusive education may be possible.

The concept of PD has advanced substantially over the past two decades, clarifying the central role of teachers and teacher professional communities in generating individual teacher and school-wide improvement. Less evident is how to link these advances to one of the most enduring problems in education – that of serving students who have disabilities well in inclusive classrooms and schools. While the fundamental strategies to support teacher development for inclusive education may well be within arm's reach, they will need to be linked *routinely* to the complex needs of students who have disabilities – by school leaders, by teacher leaders in general and special education, and by those who are called upon by schools to support PD in activities such as action research and PLCs. Finally, both action research and PLCs will need to be linked systematically to the full continuum of teacher development – from initial teacher education, to induction, to the development of practicing teachers, and build on collaborative frameworks for how professionals routinely engage in the improvement of their practice.

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Changing Perspectives of Special Education in the Evolving Context of Standards-Based Reforms in the US and England

Margaret J. McLaughlin and Alan Dyson

INTRODUCTION

For over two decades, the United States (US) and England have been engaged in reforming or reinventing their educational systems. In England, these concerns first found expression in the so-called 'great debate' beginning in the 1970s, and in the US the 'educational call-to-arms' occurred during the 1980s with publication of 'A Nation at Risk' (National Commission on Excellence in Education [NCEE], 1983). This chapter presents the evolution of educational reform in two countries: the US and England, and how those reforms affect students with disabilities or special educational needs (SENs).

The central elements of the reform agenda, referred to as 'standards-driven reform', are similar in both the US and England. They include common curricular goals and achievement levels, assessments that are aligned with content standards and which are used to hold schools and individual students accountable for increasing levels of performance. While the evolution of reform in the two systems differs in some fundamental ways, in both cases the education of students with disabilities and SENs has, for better or worse, become far more intertwined with general education policies and practices. This chapter will describe the evolution of the educational reforms in the two countries and how demography, culture and politics have interacted in shaping the direction of the reforms.

However, before discussing each country's journey to reform, it is appropriate to place these reforms in context. While the US and England share some strong traditions and ideas about the purpose and practice of educating their citizens, there are some pointed differences. First, the US has a federalist government which accedes a great deal of autonomy and responsibility in the area of education to its individual states and other jurisdictions. Thus, while the US has a large, complex and interrelated set of federal educational policies, they typically are tied to a fundamental monetary incentive which coerces states to comply. The situation in England is somewhat different. The four component administrations of the UK (England, Northern Ireland, Wales, and Scotland) make their own education policy. The Westminster government makes policy for England and over recent decades has done so at levels of increasing detail and prescriptiveness. Although many aspects of this national policy have to be interpreted and implemented by over 150 local authorities, the already limited powers of these bodies to deviate from national imperatives has been severely eroded in recent years.

A second important difference between the US and England rests in the policies and ideologies surrounding the education of children with disabilities and/or those deemed to have SEN. The US approach to the provision of special education is grounded in civil rights law and specifically sets forth entitlements and protections for children determined to have a disability. The federal law, The Individuals with Disabilities Education Improvement Act (IDEA), specifies 14 categories of disability and requires that, while states may

choose different labels, children meet one or more of the criteria in order to be entitled to receive special education. One of these categories is Specific Learning Disabilities, which has been quite controversial since its inclusion in the US special education legislation. This category accounted for much of the large increase in the percentage of students identified as having a disability over the years (from 1.8% in 1976–1977 to 5.7% in 2004–2005). However, in recent years the percentage of children with specific learning disabilities has been declining due to new identification provisions in federal law. Meanwhile, students in categories such as other health impairments (which includes Attention Deficit/Hyperactivity Disorder) and autism have been rising (U.S. Department of Education, 2012).

In contrast, England moved away from a disability-based system in the 1980s. Instead, children are identified for special needs education on the grounds that they need provision that is different from or additional to that made for their peers in order to thrive educationally, regardless of whether they are also regarded as having a disability. At its best, this creates a very flexible and responsive system in which children can receive support without the need to acquire a disability label or to move into special settings. Historically, around 20% of the school population have received some form of special needs provision with only around 1% placed in special schools. Whilst those with the highest levels of need (around 2%–3%) receive legal protection for their provision (a legally-binding 'statement'), and whilst those who are also regarded as disabled benefit from disability rights legislation, the system as a whole is probably somewhat less rights-based than that in the US.

THE EVOLUTION OF EDUCATIONAL REFORM POLICIES IN THE US

To understand how US educational reforms evolved requires an understanding of three major influential forces. The first of these is the constitutionally-defined separation of state and federal powers which historically has relegated decisions about educational policy to individual states. A second factor has been the history of racial segregation in the US and the efforts to 'undo' the inequality and injustices of that segregation. Finally, concerns about sustaining economic competitiveness and US global dominance in innovation and development have created the demand for more rigor in the educational system. Taken together, these factors have led to a series of federal and national efforts designed to standardize education across individual states and increase academic rigor.

MILESTONES IN US REFORM POLICIES

The 1983 NCEE report, A Nation at Risk, is often credited with introducing the standards movement in the US. This report linked the nation's future economic competitiveness with the quality of its workforce and cited the need for new and rigorous standards in American schools (NCEE, 1983). This report was followed by others issued by various groups that expressed concerns over the quality of education in the US that reached a nadir the 1989 President's Education Summit attended by the governors of all 50 states. The meeting resulted in the development of six national education goals that were to be achieved by the year 2000. These national goals were significant in that they represented the first expression of a national educational agenda. The six goals were incorporated into federal law, *Goals 2000: Educate America Act (1994)* which later was folded into the 1994 reauthorization of the 1965 Elementary and Secondary Education Act (ESEA, PL

103–382), *Improving America's Schools Act (1994)*.

The Elementary and Secondary Education Act (ESEA)

The ESEA is the centerpiece of US federal elementary and secondary education policy. This law, first passed in 1965, provides billions of dollars to states to improve educational outcomes of children disadvantaged by poverty. The Act also created the framework for what has been an increasing level of federal direction over state and local education policies. Prior to the passage of ESEA, there were few federal educational laws or policies and as Kaestle and Smith (1982) note, individual states resisted any sort of consolidation of power over education. To understand the evolution of the ESEA and the expansion of the federal role in US education, it is important to understand that the basic intent of the ESEA was to address the enormous inequalities in educational opportunity among students in the US.

National concerns about educational inequality grew following the 1954 landmark Supreme Court school desegregation decision, *Brown v. Board of Education*. This decision, which determined that racially-segregated schools were inherently unequal, set into motion federal efforts to address inequities in public education. Spurred by a major national study documenting wide disparities across schools in basic funding, facilities, and teachers (Coleman et al., 1966), initial federal efforts focused on providing different groups of students (e.g., minority and poor students) *equal access* to the same resources. A seminal paper by Coleman (1968) extended this concept of educational equality to attainment of the same outcomes defined as academic achievement. Coleman asserted that public education had a responsibility to ensure that all students had an equal opportunity to attain the same outcomes, and this concept of educational equality was embraced by liberal and progressive educators, and became the driving goal of US federal education policy as specified in the ESEA (O'Neill, 1976). The basic structure of the law reflects what Berne and Stiefel (1984) have defined as vertical equity in which the federal government provides greater amounts of resources to schools whose students have the poorest outcomes.

However, despite the focus on equality, from its passage in the mid-60s until 1994 when it was reauthorized, the ESEA allowed states much discretion over how it provided education to disadvantaged students as well as how they measured achievement. Federal oversight was limited to determining if the federal ESEA resources were being delivered efficiently and as Congress intended (Kaestle & Smith, 1982). However, following a series of evaluations that indicated the continual large gaps in achievements, the ESEA was amended in 1994 to require that each state develop challenging content and performance standards in at least reading and math and adopt yearly assessments to determine how well all students were meeting the states' performance standards. The 1994 amendments further mandated that as a condition of receiving federal funds, states develop and implement one state-wide assessment and accountability system that applied to all schools, stipulated that all students should participate in the state assessments, and that the results for all students must be publicly reported. Furthermore, individual states were to develop plans for holding schools accountable for student achievement including setting performance targets and imposing mandatory consequences for failing schools. While the provisions represented a major departure from previous federal educational policies, individual states maintained significant control over how they defined their standards, assessments and accountability systems (Geenen, Thurlow, & Ysseldyke, 1995).

No Child Left Behind Act

The changes made to the 1994 ESEA were intensified with the 2001 No Child Left Behind Act ('NCLB' PL 107–110). The 2001 amendments maintained the requirements that states develop core academic standards and assessments in at least reading, math and science and further mandated that all students in grades 3–8 (and in one grade during high school) be assessed annually. A major change was the requirement that the assessments be used to measure school and system-level progress in closing the achievement gaps between specific groups of students (i.e., racial and ethnic groups, low income students, English language learners, and students with disabilities). Each year, schools are to meet a performance target, referred to as Adequate Yearly Progress (AYP), for each subgroup. These targets were based on the absolute standard of achieving, by 2013, 100% of all student subgroups scoring at or above proficient at each grade level. Failure to meet the annual targets for any one of the subgroups resulted in mandatory consequences for schools and districts as defined in federal law.

Needless to say, this act quickly became quite controversial. Some groups, such as the traditional civil rights organizations, lauded the transparency and accountability that focused on closing the achievement gaps between students of color, English Learners, students with disabilities and traditional white middle-class students. At the same time, however, these groups decried the punitive nature of the law and the fact that schools with the largest concentrations of poor and minority students were being targeted for sanctions and most often labeled as failing. An equal or larger number of politicians and educational organizations, such as the leading teacher associations, viewed the law as flawed and a disastrous federal incursion into state's rights. As more and more schools were labeled as 'failing' because they were unsuccessful in meeting their performance targets, many politicians, policy-makers, as well as the general public, became increasingly opposed to the mandates.

Recent developments

The ESEA is overdue for reauthorization and the US Congress has promised to change some of the more onerous aspects of the law. However, recently, the U.S. Department of Education announced a voluntary program inviting each State educational agency to request flexibility 'regarding specific requirements of the NCLB in exchange for rigorous and comprehensive State-developed plans designed to improve educational outcomes for all students, close achievement gaps, increase equity, and improve the quality of instruction' (U.S. Department of Education, 2012). States were permitted to propose changes to several important aspects of NCLB, including how they would hold schools accountable for student performance. The models do not focus on punishing or sanctioning schools but instead focus on how states will intervene in the lowest performing schools as well as recognize high achievement and progress. States receiving waivers are required to adopt several specific policies: the Common Core Career Ready Standards; one of two assessment systems; and an educator evaluation system based in part on measures of student achievement and used for all major personnel decisions.

Common Core Career Ready state standards

As noted in previous sections, many policy makers perceive that a major impediment to the achievement of

educational equity has been state control over matters of education. Thus, while the ESEA required that states develop content and achievement standards, there was no mandate that these have comparable rigor. The push toward 'standardization' of the standards was seen as critical to closing achievement gaps and ensuring equality of educational opportunity by a number of organizations including the Council of Chief State School Officers representing the top educational officer in each state and the National Governors Association. These organizations developed, after extensive feedback from various stakeholders in education, one set of content standards in the subject areas of English language, arts and mathematics for students in all grade levels from kindergarten through 12th grade (National Governors Association Center for Best Practices, 2010). The new standards are touted as being rigorous and better able to prepare students for higher education and careers. As of June 2010, 48 states, the District of Columbia, and two US territories had adopted the Common Core State Standards as their state academic standards giving most of the US, for the first time in its history, what might be called a common curricular framework. However, most recently several states are re-evaluating their commitment to develop these standards due to concerns about costs. The US Department of Education is also providing funding to two multi-state consortia to develop specific assessments designed to measure attainment of the Common Core.

School choice and market-based reforms

The dominant reform model in the US is 'standards-driven' as defined through the ESEA. However, market-based reforms in the form of school choice have been present in some form in the US for decades (Rhim & McLaughlin, 2007). School choice can take several forms, such as vouchers or opportunity scholarships, magnet schools, and charter schools. All of these options are designed to infuse private-sector market forces, specifically, autonomy, competition, and choice, into public education (Chubb & Moe, 1990; Finn, Manno, & Vanourek, 2000). Choice moved into a more prominent place during the 1980s and 1990s, and a new model of choice, referred to as charter schools, became dominant (Rhim & McLaughlin, 2007).

Charter schools are public schools which have been granted a charter or contract to operate as an independent and relatively autonomous educational entity. While the federal government provides funding and other incentives that support the development of charter schools, these are state or local options governed by individual state law. State laws specify if and under what conditions charter schools may be created, how funds will be provided to schools, and perhaps most importantly, the extent of autonomy granted to the schools. As a result, charter schools are extremely heterogeneous both within and across states (Rhim & McLaughlin, 2007). Charter schools, however, are funded by public tax dollars and must be accountable to the public through the assessments and accountability mechanisms defined in ESEA. These schools must also have open-enrollment policies and are subject to all federal and state civil rights laws. Approximately 3% to 4% of all public school students in the US are enrolled in charter schools; however, enrollment patterns can differ rather substantially across and within states. Thus, while choice remains a very strong piece of the reform agenda, it does not dominate the national discourse.

STUDENTS WITH DISABILITIES AND US REFORM POLICIES

The education of students with disabilities in US schools is shaped by two very powerful federal laws: the

2004 Individuals with Disabilities Education Improvement Act (IDEA, PL 108–446) and the No Child Left Behind Act, 2001 (PL 107–110). The core provisions of IDEA have been in place since 1975 and entitle that each eligible child with a disability receives a free and appropriate public education (FAPE). The primary accountability instrument used in IDEA is the Individual Education Program (IEP) which is to be developed according to specific timelines and procedures and agreed to by the student's parent. The IEP is required to be based on individualized assessment of a student with a disability and must contain individual goals that provide *individualized* education in those areas that have been impacted by the student's disability. Since the beginning of the standards movement, there has been a tension between the IDEA entitlement to an individual education and common standards and assessments. Efforts to address the conflict have resulted in various adjustments to both the IDEA and ESEA.

Amendments to the IDEA in 1997 attempted to align some special education policies with those of standards-driven reform. For example, specific provisions were added requiring that students with disabilities have access to the general education curriculum and participate in state and local assessments with accommodations and/or alternate assessments as needed (McLaughlin & Thurlow, 2003). However, there was much resistance to including the scores of these students in accountability systems. In part, this was because the IEP was widely viewed as the accountability mechanism for an individual student with a disability which many felt negated the need for system-level reporting of performance data. This lack of public accountability was cited as a significant problem by a National Academy of Sciences committee (McDonnell, McLaughlin, & Morison, 1997) which noted that the IEP was a form of 'private' (p. 151) accountability and inconsistent with the move toward transparent reporting of student achievement and universal accountability.

The passage of NCLB dramatically changed the policies pertaining to accountability for the achievement of students with disabilities. The NCLB explicitly requires that all students, including those with disabilities, participate in assessments and that the scores are calculated in annual progress metrics that are publicly reported and result in mandatory sanctions. Assessment results include the very small number of students with significant intellectual disabilities who may be assessed using alternate assessments based on alternate achievement standards. However, the IEP remains the mechanism for determining how an individual student with a disability will participate in assessments, including which accommodations will be provided as well as whether the student may participate in an alternate assessment. Since NCLB was passed, there have been some attempts to standardize the IEP. Referred to as 'standards-based IEPs' (Ahearn, 2006), the practice directly links a student's individual goals to a state's standards and assessments.

Challenges of reforms and students with disabilities in the US

There has been a fundamental mismatch between the entitlement of an individualized or 'appropriate' education as specified in the IDEA and the prevailing educational standards-driven policies. As noted above, standards-driven reforms place the focus on measuring outcomes, most specifically as defined and measured through common standards and assessments. Equality of educational opportunity is measured by the extent to which every student achieves the outcomes. In contrast, an appropriate education for a student with a disability emphasizes individual goals and outcomes 'designed to meet their unique needs and prepare for further education, employment, and independent living' (Individuals with Disabilties Act, 2004). Thus, while

the IEP assumes that students with disabilities will be included in and access mainstream education, the team has traditionally been considered to be the arbiter of what the student needs to achieve a reasonable benefit from education.

The dilemma as Green (1983) argues, is that, 'We cannot [provide] an education that is uniquely suited … for each individual and at the same time give to each an education that is as good as that provided for everyone else' (p. 319). Yet, that is the place in which we now find US special education policy.

SUMMARY

During the past three decades, the US has seen some of the most dramatic changes in its educational systems since the passage of compulsory education laws in the late 19th century. The changes have moved the nation from what was a disparate, locally controlled educational system toward one defined by uniformity in standards and assessments. This move has been met with resistance from a number of fronts including conservatives who see this as an unnecessary and perhaps unconstitutional intrusion of the federal government into state control. The changes also represent a major change for students with disabilities. For these students, the question of whether or not they are being treated unjustly or being denied an equal educational opportunity under the state imposed standards remains debatable.

THE EVOLUTION OF EDUCATIONAL REFORM POLICIES IN ENGLAND

As is the case with the US, the English education system has long struggled with two contrasting imperatives. Since the Second World War, policy-makers have sought to develop an equitable education system in which opportunities would not be denied to children because of their social backgrounds or, increasingly, because of their gender, ethnicity and disabilities and difficulties. The 1944 Education Act, for instance, opened an extended form of secondary education to all and made a selective and academically-oriented 'grammar school' education available to those who were seen as having the intellectual capacity to take advantage of it, regardless of background. This in turn was part of a wave of social reform at the time which saw the establishment of a welfare state aimed at protecting citizens from the five 'Giant Evils' – squalor, ignorance, want, idleness, and disease (Beveridge, 1942). From the 1960s onwards, selective grammar schools were largely replaced by all-inclusive 'comprehensive schools' on the grounds that academic selection was seen as socially divisive, and a range of initiatives was launched to target resources at children from minority ethnic groups and those living in disadvantaged areas.

At the same time as these somewhat liberal, welfarist developments were occurring, the English system retained a commitment to what was variously conceptualized as academic excellence or standards of achievement. Despite the equitable intents of the 1944 Act, the system of academic selection made it clear that opening opportunity to all children had to be balanced against the need to preserve the privileged position of high-achieving (and often middle-class) students, and grammar schools continue to flourish in some parts of the country to this day. Moreover, from the 1970s onwards, there was a growing backlash against the supposedly liberal drift of the system. Right-wing critics mounted a sustained campaign alleging a fatal erosion of standards (Cox & Dyson, 1971), and even the Labour Prime Minister, James Callaghan, speculated publicly that the system might have misjudged the balance between promoting the development of the

individual and meeting the needs of the national economy (Callaghan, 1976).

THE EMERGING STANDARDS AGENDA

A series of Conservative governments after 1979 began to respond to these concerns – albeit somewhat tentatively at first – by initiating what is now recognizable as a standards agenda not unlike that which swept through the US. When they lost office in 1997, this agenda was already firmly established and 'New' Labour governments between then and 2010 continued to pursue it with considerable enthusiasm. Their efforts have subsequently been built on by a Conservative-Liberal Democrat coalition since 2010. The degree of political consensus about the nature of the 'problem' in the English education system and the broad direction (if not always the detail) of reform is, therefore, remarkable.

The key underpinnings for the new, standards-based system were laid out in the Education Reform Act 1988 and subsequently elaborated in a wide range of legislation and guidance. The aim of reforms was to drive up standards of attainment, by introducing market disciplines into the system and by increasing central control. These in turn involved diversifying school types and governance, enabling parents to exercise a large degree of choice over which schools their children attended, and encouraging schools to compete to attract students, at the same time as centralizing control of the curriculum and ratcheting up levels of accountability throughout the system. In the process, many decision-making powers were redistributed from local authorities to schools so that they could respond to the demands of the market place, while other important decisions were shifted from local authorities to central government. Despite the many developments that there have been in the intervening period, the structures set up by the 1988 Act continue to be those on which the current system is based. In the following sections, we review briefly some of the features of the system that are most relevant to special needs education.

The national curriculum and national assessment system

The Education Reform Act introduced a National Curriculum. In its original form, this was highly prescriptive, specifying more or less everything that was to be taught in schools. Its scope and content have varied across the years, and there is currently a move to reduce its requirements and, indeed, to establish new types of schools that are 'free' of it entirely (DfE, 2012b). However, it remains the case that the majority of schools in England have little option in practice other than to teach what is prescribed.

One reason for this is that the curriculum comes complete with a national assessment system which came to involve various forms of tests, assessments and examinations at ages 5, 7, 11, 14, and 16. These are designed to ensure that all children (even the youngest) are making 'adequate' progress, that schools and early years' settings are teaching children well, and that they are following national guidelines as to what needs to be taught. With this in mind, outcomes from the National Curriculum are constructed as a series of eight progressive levels of achievement (level 1 to level 8) to cover the age range 5–16. For example, at the end of primary school, at age 11, children are expected to have reached at least level 4 and the percentage of students who achieve the expected levels are incorporated into school and local authority targets.

Accountability

The accountability of schools, local authorities and (to some extent) national government for education standards, is closely tied in with the assessment system. The attainments of students are reported annually on a school-by-school and authority-by-authority basis. The assumption underpinning this reporting is that how well students do is a direct consequence of the effectiveness of the schools they attend, and that parents should be able to use this information in deciding where they wish to have their children educated. Various efforts have been made, therefore, to calculate 'contextual value added' scores which identify the value added by the school and control for the prior attainments and background characteristics of students.

In turn, performance data informs to a greater or lesser extent a system of inspection covering all ages, and including pre- and post-school provision, in both the publicly funded and independent sectors. All educational institutions and local authorities are subjected to external scrutiny in the form of data analysis and field visits carried out by the Office for Standards in Education (Ofsted) under the direction of Her Majesty's Chief Inspector of Schools (HMCI). Reports of these inspections are published so that they are available to parents. The inspection process is governed by section 5 of the Education Act 2005 (as amended) and the process is set out in a *Framework for the inspection of schools*. This is revised from time to time, but in its latest version focuses primarily on:

- The achievement of pupils at the school;
- The quality of teaching in the school;
- The behaviour and safety of pupils at the school;
- The quality of leadership in, and management of, the school. (Ofsted, 2012, p. 5)

In addition, inspectors are expected to 'consider':

- The spiritual, moral, social and cultural development of pupils at the school;
- The extent to which the education provided by the school meets the needs of the range of pupils at the school, and in particular the needs of disabled pupils and those who have special educational needs. (Ofsted, 2012, p. 5)

The frequency of school inspection varies in line with the judgment made on the school in its previous inspection report: the best-performing schools are simply monitored and are exempt from full inspections; the worst-performing schools are subject to some form of inspection every few months; those between are inspected at least every 5 years. Currently, inspections are much more 'light touch' than in the past, taking the form of a two-day visit to the school by an inspection team and an analysis of school performance and other data. However, they go beyond compliance monitoring and include observations of classroom practice and judgments about the quality of teaching and learning. Reports of these inspections are made publicly available within two to four weeks of the completion of the inspection. A school judged not to have met the criteria specified in the *Framework* is described as 'causing concern'. This may be in one of two categories, 'serious weaknesses' or 'special measures'. Section 44 of the Education Act, 2005, provides definitions of schools that require special measures or significant improvement and specifies what action must be taken by the school and/or the local authority. If the situation does not improve, the school may ultimately be closed down.

Choice and diversity

The introduction of market disciplines has been crucial to reform efforts in England. In the post-War era, state schools were directly managed by local education authorities who also decided which school individual children should attend. Following 1988, schools gained increasing levels of autonomy vis à vis local authorities, notably in the first instance by taking over control of their own budgets. At the same time, parents were enabled to exercise a significant degree of choice over the school to be attended by their children and schools were funded in line with the number of students they were able to attract. A quasi-market in school places was thus created with schools competing against each other to persuade parents – now in possession of performance data and inspection reports – of their virtues.

Over time, various efforts were made to diversify the types of school on offer so that parents would be choosing between schools with different characteristics rather than between a uniform set of what one policy adviser famously called 'bog standard' comprehensives. In their later years, New Labour governments began to set up academy schools, sponsored independently and owing no particular allegiance to the local authorities in whose are they were situated. Latterly, the Conservative-Liberal Democrat coalition has significantly expanded the academies programme and accompanied it by the development of 'free schools' (DfE, 2010). Whilst the former tended to replace or reinvent existing schools, the latter could be set up by independent groups without replacing any existing school and thus with little regard for the supply of school places in a particular area.

Equity in the reform efforts

To a large extent, reform efforts in England have been focused on raising overall standards of performance in the education system. However, policy-makers have been aware that there is a substantial minority of children who need some form of additional support and attention if they are not to do badly even as the system as a whole improves. There have, therefore, been repeated attempts to narrow or close the gap in outcomes between more and less advantaged children (see, for instance, Department for Children, Schools and Families [DCSF], IDeA & LGA, 2007; HM Government, 2008).

These efforts were particularly marked in (though not restricted to) the New Labour years where there was a deliberate attempt to promote 'excellence for the many, not just for the few' (Blunkett, 1999). Hence, there were repeated initiatives to target extra resources and attention at disadvantaged students and areas, and at the schools by which they were served (Antoniou, Dyson, & Raffo, 2012). Probably the most notable of these initiatives was the *Every Child Matters* (DfES, 2003) programme, an ambitious approach for improving the well-being of children and young people from birth to age 19. Its aim was for every child, whatever their circumstances, to have the support they need to be healthy, stay safe, enjoy and achieve, make a positive societal contribution, and achieve economic well-being. The initiative entailed greater co-ordination of human services, such as education, health, social care and youth work through structural reform, greater sharing of information and the development of joint working practices in pursuit of common aims.

Significantly, *Every Child Matters* was about more than educational outcomes and saw work in schools as being part of a broader attempt to improve the whole of children's lives. In the same way, New Labour saw

schools as having a role to play in creating a better society by, for instance, contributing to community harmony (known as 'community cohesion') (DCSF, 2007) and acting as a hub for a range of community services and resources. In this way, the New Labour version of education reform connected with the older welfarist notions of the post-War years. Equally significantly, however, the incoming Coalition government in 2010 rapidly sidelined *Every Child Matters* and the broader schools agenda, refocusing attention on the purely academic function of schools.

STUDENTS WITH SPECIAL EDUCATIONAL NEEDS AND ENGLISH REFORM POLICIES

The background

The development of special education in England followed a similar pattern to that of the education system as a whole. In the period following the War, England developed its existing network of special education into a substantial and comprehensive system. In many ways this embodied the welfarist principles of wider post-War education policy and of social policy more generally. The state, acting through local authorities, took on the responsibility for identifying children with disabilities and making appropriate educational or quasi-educational provision for them. However, this system was based on a set of assumptions that were increasingly problematized over time – that educational difficulties could be equated straightforwardly with disability, that medically-led assessment was the best way to identify and understand these difficulties, and that segregated special school placement was the best way to respond to them. Just as the selective system in mainstream education began to be abandoned in favor of 'comprehensive' schools open to all, so experiments began with what would now be called inclusive provision, and attention began to be paid to the significant numbers of children in regular schools who seemed to need some form of additional support, but who could and should not be exported to special schools.

In the mid-1970s, the government set up a committee of inquiry to review the whole special education system. The resultant *Warnock Report* (Department of Education and Science [DES], 1978), implemented in large part through the 1981 Education Act, set out the foundations for a very different approach. In brief, Warnock replaced the existing disability-based system with one in which provision was made on the basis of *educational* need with no requirement for children to be given the label of any particular – or indeed, any – disability. This meant that the assessment of need should be educationally-led (by, amongst others, teachers and educational psychologists) and formal procedures – the so-called 'statementing process' – were set in place for the assessment of those with greatest need and the legal protection of the provision made for such children. However, the concept of educational need could be applied to many more children than simply those who had disabilities; hence the suggestion that one in five might have such needs at some time in their school career. Most of these children could be assessed and provided for in their ordinary schools, but even if they needed something which could not immediately be provided in that setting, the local authority might be able to provide the school with additional resources or service. As a result, placement in special school ceased to be the only way in which children could access the provision they were held to need.

Interactions with reform: Dilemmas and perverse consequences

Given the extent to which special needs education in the English system is embedded within general education, it is inevitable that reform efforts in the latter have had significant impacts both on students identified as having SENs and on the system which seeks to meet those needs. However, reform efforts in England have, for the most part, been developed without reference to special needs education. The original consultation document on the National Curriculum (DES & the Welsh Office, 1987), for instance, made almost no mention of this field and focused entirely on what the curriculum might look like for the majority of students in the majority of schools. As a consequence, special needs education has remained something of an anomaly within reform efforts. At best, policy-makers have had to find a way of accommodating students and forms of provision that did not quite fit. At worst, reforms have been driven through which, however much they might benefit the mainstream, have had perverse consequences for students with special educational needs.

One example of this is in the design of the National Curriculum and its associated assessment arrangements. Initially, a bold – and inclusive – declaration was made that there should be a 'curriculum for all' (National Curriculum Council, 1989b). However, since special educational needs had not been adequately considered in the design of that curriculum, it was no surprise that its starting level was too high and the steps of progress between levels too great for many children, with the result that special levels of assessment (the so-called 'P scales') had to be developed to accommodate them. The issue of how a common curriculum was to be delivered in classrooms characterized by diverse levels of attainment was also left unresolved in the design phase. The problem, therefore, was passed on to teachers who were expected to find some way to 'differentiate' their delivery (National Curriculum Council, 1989a, 1989b), or, later, to 'personalise' the curriculum (Miliband, 2004). However, such efforts frequently ran counter to other calls to focus on whole-class teaching, often in groups created on the basis of prior attainment (Alexander, Rose, & Woodhead, 1992; Reynolds & Farrell, 1996).

There were similar uncertainties in policy regarding the use of assessment data to hold schools to account. The assessment system introduced to support the National Curriculum is perfectly capable of tracking the progress of subgroups of students, such as those from economically poorer homes and those identified as having special educational needs. From time to time, powerful analyses of this kind are indeed undertaken (see, for instance, Schools Analysis and Research Division Department for Children Schools and Families, 2009). However, the system is also used to monitor the performance of schools so that interventions can be undertaken and so that parents can make informed decisions about which schools to choose for their children. This requires complex, multi-dimensional data be reduced to a more limited range of key performance indicators. So, for instance, published performance data on schools indicates the number of students identified as having special educational needs or entitled to free school meals (a broad indicator of poverty), but the attainments of these students are bundled up into the overall attainment data for the school. The inevitable consequence has been that opportunities to monitor subgroups have been lost and, perhaps more seriously, judgments are made about school performance on the basis of simplified and potentially misleading information. One way of trying to square the circle of the different demands on the data has been to develop 'contextual value added' measures which try to identify the contribution made by the school to children's progress by accounting for the different characteristics of different school's populations, but doubts have repeatedly been cast on whether such measures have any real validity (Gorard, Rita, & Nadia, 2013).

Not surprisingly, this problem of monitoring overall school performance when schools contain diverse populations has also beset the Ofsted reporting system. Originally, Ofsted reports included a separate section on special educational needs provision, but this soon disappeared and judgments about that provision are now rolled up into a general commentary on the school. This in turn informs inspectors' decisions about placing schools in the different categories of performance. Whether this categorization process takes due account of the quality of special educational needs provision, whether decisions by parents and government about schools are fully informed ones, and whether the education system as a whole has good information on the state of special needs provision is, therefore, highly doubtful.

What has made these problems doubly significant is that they have occurred in a high-stakes environment, where the fate of a school depends to a significant extent on decisions that are made on the basis of performance data and inspection judgments. On this basis, schools have repeatedly been warned by politicians that 'poverty is no excuse', and that their standards of performance have to be high, regardless of the nature of the populations they serve (see, for instance, Curtis, 2009). It is not simply that these judgments about schools may often be flawed, but that the situation creates a powerful incentive for schools to 'game' the decision-making process. It pays schools to appear to be well-ordered places with high-achieving students. At its crudest, this means that it pays them to avoid having to educate low-attaining and troublesome students. It is no coincidence, therefore, that there are something like 275,000 exclusions of students for disciplinary reasons, that students entitled to free school meals (an indicator of low family income) are three to four times more likely to be excluded than their peers, and that students with statements of special educational needs are six to nine times more likely than their peers to be excluded (DfE, 2012a).

More subtly, it pays schools to do all they can to improve their performance on key indicators, regardless of the impacts on their students. Specifically, schools are principally held to account for the proportion of their students who achieve arbitrarily-determined 'benchmark' levels. It makes sense, therefore, for schools to engage in a process of educational 'triage' (Gillborn & Youdell, 2000), focusing their efforts not on the students with greatest needs, but on those just below the benchmark levels who might do marginally better with a targeted intervention. Similarly, schools have tended to enter students for what they perceive to be the easiest examinations at age 16, regardless, some allege, of the worth of the resultant qualifications. Governments have thus found themselves constantly changing the reporting of examination results to prevent the large-scale dumping of low-attaining students (many of whom will be identified as having special educational needs) in these supposedly 'easy' exams (see, for instance, Gove, 2012).

Interactions with reform: Reforming special needs education

Although, for the most part, special needs education has been an anomaly within the reform movement, there have also been attempts at reforming special needs education itself. In part, these attempts have been motivated by an attempt to align special needs education with the aims of mainstream reform. This was particularly true during the New Labour years when, for a while, a radical reform of the special needs system seemed possible. New Labour's focus on 'excellence for the many' inevitably led it to see special needs education as having a key part to play in ensuring that the reform process embodied a strong equity-oriented strand. Special needs education, therefore, came to be viewed through the lens of 'barriers to achievement' or

'barriers to learning' (DfES, 2004). In a revisiting of Warnock's ecological perspective, children were seen as doing badly not simply because of their innate difficulties, but because of the ineffectiveness and inefficiencies of the system in which they found themselves. It was therefore the duty of policy-makers to sweep these barriers away. At the same time, New Labour declared itself committed to the development of a more inclusive education system (DfEE, 1997), and backed this up with legislation (the Special Educational Needs and Disability Act 2001), and a range of guidance and other measures.

However, there were always limits to New Labour's radicalism. In practice, the reform of special education produced a succession of somewhat piecemeal 'programmes of action' (DfEE, 1998; DfES, 2004). Its commitment to inclusion always carried the proviso that segregated special education would continue to be needed (DfES, 2003), and was eventually downgraded to a commitment to provide inclusive placements where parents wanted them (HM Government, 2006). Indeed, despite the growing evidence of significant problems in the special needs system, New Labour proved remarkably resistant to calls for more radical reform (HM Government, 2006). In this sense, the New Labour reforms fell in with the pattern of all government efforts in this area since 1988, which have largely been about fixing problems in the special needs system rather than contributing to wider reform efforts.

As a succession of official reports (Audit Commission, 2001, 2002; Audit Commission & HMI, 1992; Commission & Inspectorate, 1992; House of Commons Education and Skills Committee, 2007; Lamb, 2009; Ofsted, 2004, 2010) have noted, the system established by Warnock and the 1981 Act is full of conflict and contradiction. Put crudely, local authorities are charged with managing public resources efficiently and effectively, whilst parents and schools wish to secure them for individual children. These tensions predate the reforms of the mainstream system, but have undoubtedly been exacerbated by those reforms, not least because of the new imperatives imposed on schools and their responsibility for managing their own budgets. Successive governments, therefore, have engaged in problem-fixing exercises. Most notable of these has probably been the introduction of the *Code of Practice on the Identification and Assessment of Special Educational Needs* (DfE, 1994). In effect, the *Code* established a set of rules and procedures for how children with special educational needs should be identified and assessed and monitored. It therefore codified the Warnock system but did not, even when it was revised under New Labour (DfES, 2001), attempt any more radical reform.

More recently, the Coalition government has embarked on what it declares to be a programme of just such radical reform (DfE, 2011). Its proposals – the replacement of the statement with a joint assessment process and plan, increased capacity for parents to choose their child's school and purchase services for him/her, the separation of the assessment function from the local authority's provision function, and increased diversification amongst providers in the special needs field – are certainly underpinned by the same commitment to marketization and parental choice that underpin the government's wider reform efforts. However, there is, at this early stage, little to suggest that special needs education will become a significant contributor to those efforts or that this will turn out to be much more than yet another attempt to fix the system's endemic problems.

SUMMARY

Over the past three to four decades, policy-makers from all the main parties in England have pursued

relentlessly a standards agenda characterized by centralized control, a marketized school system, and high-stakes testing and accountability. This agenda has been concerned with raising overall levels of performance in the education system. To varying extents, this has been accompanied by a concern to ensure that potentially vulnerable groups, including those identified as having special educational needs, benefit from the expected overall improvements. However, the dominant concern with overall system improvement has meant that there has been limited room for the consideration of special needs education. For the most part, the special needs system has remained preoccupied with its own problems, and policy-makers have been reluctant to engage in the kind of radical changes that might have placed it more centrally within the overall reform efforts.

COMMON CHALLENGES AND DILEMMAS

It is clear that England and the US have been faced with implementing similar educational reforms during the past two decades. The reforms in both countries have emphasized the importance of establishing a universal set of content standards accompanied by assessments the results of which are used to promote high levels of school and system-level accountability. Both countries have moved to broaden parental choice and increase competition in the educational system. And, both countries have faced a number of challenges associated with including students with special education needs in these reforms. There are, however, some notable differences between the two countries in terms of the politics as well as process for implementation of the reform initiatives. For example, the federalist system of government in the US required that reform policies be designed in such a way as to carefully balance federal vs. state authority. Thus, until recently, the federal government only required that individual states develop specific subject matter content standards and assessments as a condition of receiving large federal grants, while how such standards and assessments were developed were permitted to vary. Another example is the degree to which the reform agenda in England has supported the marketization of education systems aimed at breaking the hegemony of providers and empowering 'consumers' (effectively, parents) to choose from an increasingly diverse array of provision. These efforts, while supported and encouraged within US reform policies, vary significantly across and within states in terms of the degree of autonomy and regulation.

Overall, however, both England and the US have maintained, and even expanded, a reasonably consistent reform agenda that has been supported by governments of both the right and left. It is no coincidence, for instance, that the start of the reform movement in England can be traced back to concerns raised by Jim Callaghan, a Labour and therefore leftist Prime Minister, in the 1970s, nor that in many ways the most aggressive phase of reforms came in the period of New Labour administrations between 1997 and 2010. Similarly, as noted in sections above, the foundations of US reforms began during the 1960s with the major civil rights and liberal policies associated with the Great Society but have continued through both conservative pro-business and Democratic administrations. In both countries it is probably true to say that reforms have arisen out of a somewhat brutal 'neo-liberal' agenda (Gunter et al., 2010). At the same time, however, much effort has been expended on finding ways of raising the achievement of children with disadvantages including those with disabilities – ensuring in US terms that that they are not 'left behind', or, in English terminology, that 'every child matters'. This is perhaps why the reform agenda has been able to attract support from across the political spectrum. The sum of these efforts has been, however, to legitimize the somewhat problematic

notions that every child, regardless of his or her particular circumstance, should be held to a high standard in terms of educational achievement and that schools and often individual teachers are to be solely held accountable for ensuring that each child meets that standard.

In this context, it is perhaps not surprising that the totality of the reforms has proven to be something of a mixed blessing for students with special educational needs. On the one hand, the special education systems in both countries – and therefore the students within them – have to varying extents been expected to participate in and follow the requirements of the various policies. Given that the reforms were emerging at a time when the inclusion agenda was dominating thinking about special education, explicitly addressing students with special educational needs in the broad general education policy was initially seen as a positive move towards an inclusive education system. On the other hand, the focus on ambitious, universally-mandated content and achievement standards has proved to be somewhat alien to the core values espoused by most special educators. The focus has intentionally narrowed the breadth and scope of general education in ways that might be seen as less accommodating to students who find school learning difficult. Further, high-stakes accountability, while recognizing and incentivizing high levels of progress, places value on those students who are achieving on specific assessments. Finally, the marketization of the educational system has resulted in some instances in greater segregation and marginalization of those students who struggle in school, whether due to disability or other characteristics.

The experiences of the two countries in striving to implement the core educational reforms of the past two decades with these students thus discloses some of the complexities and incoherence in the overall general reforms and those policies designed specifically for students with special education needs. The inclusive ideology that promoted holding all students to the same expectations and high standards is founded on the expectations that the reforms will somehow confer benefit to children, including those who may have the most serious learning problems and who may have special educational needs. This assumption, however, has proven to be highly problematic. By definition, these are the children who have already demonstrated that they often struggle within the educational curricula and instruction that are provided to the majority. As a result, they are determined to be in need of something 'special'. In the terms of the English special-education legislation, these children require something 'which is additional to, or otherwise different from, the educational provision made generally for children of their age' (Section 312, Education Act 1996, cited in DfES, 2001, p. 7). In the US, these children have often been labeled as having a disability and are entitled to an 'appropriate' education, defined as one that is individually-tailored to their needs. Thus, it follows that any set of reforms that originate in and are designed to impact the rigor and direction of education for the majority of students is likely to be problematic for students with disabilities and learning difficulties.

Faced with this contradiction, policy-makers in both countries have responded in somewhat similar, though not necessarily coherent, ways. Both countries, perhaps more so in England, have to some extent simply pressed on with the reform agenda, leaving special needs education to carry on with its traditional functions, largely untouched. As noted above, at the same time as English policy-makers were engaging in radical reform of the mainstream system, they were highly reluctant to make significant changes in special needs education, which remained preoccupied with its own internal problems. In the US, policymakers responded with a number of regulations issued by the U.S. Department of Education, permitting some 'flexibility' in mode of assessments and accountability for students with disabilities and non-English language speakers. However,

these policy adjustments were mostly focused on students with significant intellectual disabilities. Thus, as in England, the core policies that governed US special education remained basically unchanged and neither country chose to take on the established orthodoxies and goals of special education.

In both countries, there was also an expectation that a reformed general education system would take over some of the traditional functions of special education and, if not quite make it redundant, at least diminish its role. Again, this was particularly the case in England. A central plank of the reform agenda there was that standards could be raised significantly by reforming the school system, and thus it was not unreasonable to suppose that many of those students who have traditionally been regarded as needing something 'special' might in fact do perfectly well in an improved general education system. As a recent Ofsted report in England has argued:

> as many as half of all pupils identified for [special provision] would not be identified as having special educational needs if schools focused on improving teaching and learning for all… (Ofsted, 2010, p. 5)

Moreover, a key part of the reforms in both England and the US was to target extra resources and attention aimed at 'narrowing the gap' between students in particularly disadvantaged or vulnerable subgroups, such as those with disabilities, and their peers. Thus, there was to some extent hope that additional resources would flow to those students with greater needs. However, these resources tended not to be channeled through the special educational needs system in either England or the US. In both countries, to a large extent, special education services and resources remained separate from the larger resource pool directed toward achieving the standards.

This is significant because it indicates that neither country has been willing to take a radical look at how a reformed general education system and the system for providing special education might interact with each other – at least not if this meant disturbing the latter's traditional roles and structures. There seems to have been a belief that not even a reformed general education system could meet the needs of all children, coupled with a lack of political will for tackling the vested interests that keep traditional special education in place. In both England and the US, therefore, the strategy of by-passing special education was not simply a temporary measure designed to smooth the way of the wider reform agenda. Rather, it marked a reluctance to interfere with the fundamental frameworks of special education put in place by the 1981 Education Act in England and the 1975 US legislation. The current reforms In England that were ushered in by the 2010 Green Paper are perhaps the most radical since 1981, but even they do little more than tidy up procedures and consolidate special education's historic role. Similarly, in the US, the 1997 and 2004 amendments to IDEA have attempted to integrate students with disabilities into the reform policies. However, they serve only to tweak some of the major aspects of the law that create the most dissonance, such as assessments and accountability requirements.

LOOKING TO THE FUTURE

It is not too late for policy-makers to adjust the reform agendas to address special education in a more holistic manner. In fact the reform initiatives and the goals of special education are not necessarily mutually exclusive. There is, for instance, no inherent contradiction between the proposition that all schools should be as effective

as they can be in enabling children to achieve and the principle that the needs of individual children should be met and their rights and entitlements should be respected. It is for this reason that, in both countries, *some* aspects of the reform process appear to have had positive impacts on special education and the children who receive it. It is difficult to argue, for instance, that a greater clarity about the outcomes of schooling, an increased focus on poorly-achieving children, and an overall improvement in standards of school performance have not benefited many children within the special education system. Even from an inclusive education perspective, there perhaps have been gains in terms of the inclusion of all children within a common, clearly-defined set of educational goals and the expansion of the capacity of regular schools to enable children with difficulties to achieve.

The problem is that the alignment of the reform agenda and the concerns of special education has been far from perfect. In both countries, the reform agenda has been defined too narrowly, focusing on conceptualizations of 'standards' and 'attainment' that serve to exclude many children. The aggressive way in which that agenda has been driven, moreover, has turned schools into performance-oriented institutions, concerned with their own status and survival, and with few incentives to configure themselves around the needs and entitlements of children facing the greatest difficulties. By the same token, the failure to think through the role of special education has left it with little clarity about the contribution it might make. It is true that, in both countries, there are recognizable sets of structures, procedures and practices that can usefully be labeled as 'special'. Beyond this very basic level, however, it becomes difficult to say what special education *is* or what it is *for*. In both countries, for instance, there is debate about which groups of children should be deemed to be in need of special education; further, there is no set of agreed practices, let alone consensual aims. Inevitably, powerful reform agendas driven from the perspective of regular education have exposed the extent to which special education is simply a response to what the general education system cannot or will not do. As the English inclusion scholar Tony Booth suggested many years ago (Booth, 1983), special needs are simply those need to which regular schools do not respond.

The solution is, to paraphrase Fullan (2007), technically simple, but socially, and above all politically, extremely complex. The continuing reform of regular education in both countries needs to be reoriented so that it is undertaken from an inclusive perspective. By this, we mean two things. First, it needs to have aims and pursue outcomes that are meaningful to all children. A relentless pursuit of higher levels on tests and examinations scarcely meets this criterion. Second, it needs to develop means of achieving those aims that avoid perverse consequences for the most vulnerable children. If it wishes to hold professionals to account, improve schools and make use of market forces, it must do so in ways which do not result in some children being marginalized or denied opportunity. It is much easier for special education to work out its potential contribution when regular education is already oriented in an inclusive direction and there is no longer any need for it to act, as Golby and Gulliver once famously put it, as an 'ambulance service in a system which was prone to accident' (Golby & Gulliver, 1979, p. 142).

These are scarcely new ideas. Debates around the alignment of special and regular education have been ongoing in both countries at least since the 1970s. Nor do they necessarily require a fundamental shift that it beyond the scope of normal politics. If nothing else, the ongoing analyses of PISA results and of outcomes in a range of public policy domains demonstrate that there are already countries – including Western democracies like England and the US – which are finding a way to reconcile concerns with excellence and

concerns with equity (see, for instance, OECD, 2008, 2012; Wilkinson & Pickett, 2009). However, there is little doubt that the aggressive pursuit of standards agendas in England and the US, together with the high levels of political capital invested in these agendas by policy-makers, create a particularly challenging situation. Times, perhaps, will change. The question is, what opportunities will have been missed, and how much damage will have been done in the meantime?

ACKNOWLEDGMENT

This is a substantially revised version of the chapter authored by Martyn Rouse and Margaret J. McLaughlin in the first edition of the *Handbook*. The contribution of the original authors is gratefully acknowledged.

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Medicalization in Schools

Valerie Harwood and Samantha McMahon

INTRODUCTION

Medicalization can be characterized as the product of processes that seek to put social problems into a medical framework. This process of placing phenomena into a medical framework has become more commonplace (Conrad, 2007, p. 88; Conrad & Schneider, 1992; Zola, 1972) with the concept being examined in relation to a number of areas, including: sex (Hansen, 1992); ADHD (Conrad, 1975); racialization (Kew, 2009); sleep (Kroker, 2007; Seale, Boden, Williams, Lowe, & Steinberg, 2007); pregnancy and birth (Arney, 1982; Walzer Leavitt, 1986); shyness (Lane, 2007); menopause (Bell, 1987); and psychiatry (Lunbeck, 1994). There are a number of disciplines and perspectives on medicalization, including sociology of health, critical psychology, critical psychiatry, history and philosophy of medicine, medical anthropology, and the sociology of medicine. In education, the issue of medicalization has been examined in terms of a number of considerations, such as inclusion (Isaksson, Lindqvist, & Bergström, 2010) and refugee students (Taylor & Kaur Sidhu, 2012).

Given the scope of medicalization to be applied in varying sites, it is not surprising then that medicalization occurs in schools. Schooling and education are on the receiving end of medicalization as well as contributing to medicalization (Harwood, 2006, 2010a, 2010b, 2011). In terms of experiencing the effects of medicalization, schools are clearly influenced by medicalization. Examples include the medicalization of bodies, such as what is occurring with new healthisms and obesity (Wright & Harwood, 2009), where medical concepts are used to position size, weight and shape as medical problems and concerns to be administered to medically.

The extent of the influence of medicalization in schooling and school practice can slip under the radar, and this can occur despite the tendency to rely on medicalization at the expense of other forms of explanation. Medicalizing discourses are especially influential in special education, but at the same time are not always acknowledged and questioned. For instance, while commentary on medicalization is often included or alluded to in work in disability studies (Barnes, Oliver, & Barton, 2002; Barton, 2001; Hickey-Moody, 2009) with its central tenet of critique of normalizing practices, within special education such critique is not necessarily a standard expectation (Slee, 2001). Special education has been significantly influenced by medicalization and the jurisdiction of medical power and legitimation (Potts, 1983). Although there are examples of critiques and discussion of medicalization in special education literature, it is less subject to ongoing analysis, with the exception being areas of topical debate such as ADHD, which attract numerous critiques that include analysis of medicalization (see for example Watson, 2010). As we will outline, medicalization can lay unnoticed and at the same time, very much a part of the texts that form the substance of pre-service teacher education. In this chapter, we will use the example of challenging behaviour to illustrate how medicalization infiltrates the conceptualization of challenging behaviour – from the more obvious biomedical explanations to accounts such

as the ecosocio[1] and biopsychosocial.

Medicalization is not a problem in and of itself, since understanding phenomena medically can be extremely helpful, if not life-saving. The issue is what it means to understand phenomena (especially phenomena that weren't previously considered of medical interest) from a medical perspective. There are problems associated with medicalization, chief of which is the tendency for an overemphasis of a medical way of thinking about phenomena such as behaviour. Medicalization in school settings can mean that medical authority takes precedence over other viewpoints or interpretations, one of which, as we go on to discuss, is the perceived need to be reflective about teaching practices.

MEDICALIZATION

There are differing definitions of medicalization, with Williams and Calnan (1996) providing a summary that commences with Illich's critique that makes claims regarding to the way medical knowledge controls the public and in so doing, deprives them of skills; to Foucault's (1979, 1994, 2006) well-known arguments about the clinical gaze, the effects of discourses and how these produce 'docile bodies'. One of the observations about medicalization that makes it profoundly important to wrestle with (and especially for special education) is the way that what was once not medical, becomes so. For example, with reference to mental disorder:

> Before the problems are medicalized, construed as a mental disorder or as mental health problems, they may appear as problems of bringing up children, these being of many kinds, boy/girlfriend/parent generated troubles in adolescence, poverty-related or overwork-related worries, problems of laziness, lack of motivation, shyness, male aggression, problems associated with social exclusion of many kinds, antisocial or criminal behaviour. None of these kinds of problems areas has to be construed as a medical or to do with mental health … *The medicalization of these types of problems is one particular kind of social representation and set of practices among others.* (Bolton, 2008, p. 256, emphasis added)

How then do problems such as shyness or troubles in adolescence become medicalized? Reflecting on the interest of the State in matters of health, Foucault made the observation that 'the present situation has actually been developing since the eighteenth century not a theocracy, but a "somatocracy"' (2004, p. 7). This 'somatocracy' 'sees the care of the body, corporal health, the relation between illness and health, etc. as appropriate areas of State intervention' (Foucault, 2004, p. 7). Does for instance, shyness in school settings need to be referred to and placed under the care of a medical gaze? When actions such as this occur, it becomes readily apparent how schools, via their referral to and engagement with medical expertise function as an edu-somatocracy.

Added to this concentration on health is what Foucault identified as the 'scientificity' of medicine and what he termed 'undefined medicalization'. The former draws attention to the power wielded via scientific knowledge – how, for example, via its scientificity, medicine has a much greater reach than between one clinician and his or her patient. It reaches, for instance, to a range of biotechnologies that affect us at the population, and as some now argue, the global scale (Rabinow & Rose, 2006; Rose, 2006). 'Undefined medicalization' refers to medicine moving beyond its traditional field, to areas such as law, employment and to our area of interest, education (Foucault, 2004). Just as someone wishing to be employed or who has committed a crime might be medically examined, so too are children in schools. They might be examined because they are doing very well (are they gifted?) or because they are not moving at the same rate as others (are they slow?). Children might be referred for medical examination because they misbehave (do they have a

behaviour disorder?).

It is perhaps the issue of 'undefined medicalization' that is of particular concern in education and in special education in particular. This is where the extension of medicine and medical knowledge is palpable, with the clinical gaze reaching much further than the four walls of a physician's surgery (Harwood, 2010a). Recent work has proposed the importance of conceiving the clinic – and its gaze more broadly. In much the same way, institutionalization can be understood as occurring without walls (Priebe, 2004). In this sense, the influence of all things medical needs to be understood in more complex ways, and certainly, medicalization is not always a progression of 'an increasing hold of medicine over things and people' (Fassin, 2011, p. 88).

Nye (2003) offers a useful explanation of medicalization, maintaining it is a 'process whereby medical and health precepts have been embodied in individuals who assume this responsibility for themselves' (p. 117). This way of viewing medicalization is likely to be debatable, since for one, it makes medicalization something that is possible from myriad practices. By contrast, Williams and Calnan's definition echoes a more widely assumed definition, that the 'concept of medicalization refers to the ways in which medical jurisdiction has expanded in recent years and now encompasses many problems which hitherto were not defined as medical issues' (1996, p. 1609). In this sense, there is much more to medicalization than the actions of those who have the official power to diagnose. There is an important function that discourses have, whether via the direct route from physician to patient, or via more circuitous processes that involve a number of aspects, including the influence of media representations (Coveney, Nerlich, & Martin, 2009).

THE CASE OF TEXTS[2] THAT MEDICALIZE CHALLENGING BEHAVIOUR

Challenging behaviour provides a useful case study for analysing how medicalization occurs in educational contexts and specifically, how it becomes integrated into special education. While often assumed to be the domain of special education, challenging behaviour intersects with many areas of schooling, with discourses of behaviour weaving into teacher conversations, textbooks and into children's playgrounds. Such processes connect special education to education more broadly, as well as explicitly connecting education and special education. In our analysis we particularly focus on discourses, for these enable medicalization to be 'undefined' (Foucault, 2004), traversing other fields to extend the influence of medicine. Foucault (1972) described discourse as the 'practices that systematically form the object of which they speak' (p. 72). From this perspective, medicalizing discourses systematically form their medicalized objects. In contemporary educational contexts, teachers and schools play an integral role in the diagnostic apparatus for behaviour disorders (Harwood, 2006), including those disorders characterized by attentional deficits, impulsivity (such as blurting out answers) and fidgeting (APA, 2005). In having this function, teachers and schools become involved in processes that medicalize. This is not to say that this is a necessarily deliberate practice; rather, medicalization can extend in a range of practices beyond the clinic. One of these domains is teacher knowledge, and it is here that the scientificity of medicine as well as undefined medicalization (Foucault, 2004) can influence the daily interactions in the classrooms of teachers.

In Australia, accredited teachers must have specific knowledge of and strategies for teaching children with 'challenging behaviour' (Education Services Australia, 2011). Such requirements are not confined to countries such as Australia, England and the United States have similar teacher accreditation requirements. One of the

ready routes by which medicalization can occur, can be studied and, arguably, might be countered, is in the textbooks and reading materials given to pre-service teachers (students studying education). The extent of medicalization became readily apparent to us when we closely reviewed readings for university courses on knowledge and pedagogy for children with challenging behaviour that were given to student teachers in an undergraduate program at an Australian university.

In our survey, 73 unique texts were reviewed (including textbooks, book-chapters, journal articles and policy documents). As might be expected in any teacher education course, discerning what documents were included in, or excluded from the review was a complex process. University subject outlines (as well as their respective required and recommended readings) were selected based on whether they addressed the local professional teaching standards.[3] From this process, 20 subjects in the undergraduate program schedule were identified. Following informal interviews with subject coordinators of the 20 identified subjects, 11 subjects were discarded from the review for one of two reasons: either the subject was an elective that did not run due to low enrolments; or, the standard was included in the subject outline for one of the other criteria in standards 2.1.5 and 2.1.6 (i.e., the coursework related to teaching Aboriginal and Torres Strait Islander students, students with Special Education Needs [SEN] or Non-English Speaking Background students, but not 'students with challenging behaviours'). Required and recommended readings of the remaining nine subjects (comprising six compulsory and three elective subjects) that addressed New South Wales (NSW) Institute of Teachers' teaching standards about challenging behaviour were included in the document review. Of the 73 texts, 49 addressed the topic of behaviour, and it is these texts that inform our analysis of education texts and medicalization.

In these texts we found that three different 'types' of children were described as challenging, with types differing in terms of the assumptions about causal attributions: (i) the in-actively challenging child; (ii) the pro-actively challenging child; and (iii) the re-actively challenging child. This generated a triple taxonomy (see Table 53.1). As we will outline, it is possible to identify the influence of medicalization in each of these 'types' – even though one of these appears at first glance to be the antithesis of medicalization.

The first 'type' that we identified in the education texts, the *in-actively challenging child*, occurred when challenging behaviour was construed as beyond the willpower of the child. This was construed as innately part of the child's biology and so the child was not responsible for behaving in challenging ways. The *pro-actively challenging child* is by contrast, not understood as dominated by its biology. Rather, in the education texts this was when the child was viewed as wilfully serving his or her own purposes. These purposes can be to fulfil a psychological function or to gain or resist power. The third type that was described in the education texts that we canvassed we termed the *re-actively challenging child*. In this type, the challenge was seen as mostly reactive to environmental and structural supports (or lack thereof) surrounding the child.

Table 53.1   Three discourses of challenging behaviour

Three discourses of challenging behaviour			
'Types' of child	The in-actively challenging child	The pro-actively challenging child	The re-actively challenging child
Who is speaking? (by discipline)	Medicine Psychiatry Neuropsychology	Clinical psychology Developmental psychology Educational psychology	Sociology Ecological psychology Critical psychology
Education texts	Special education needs (SEN) Behaviour management		Inclusive education Reflective practice Sociology of education Aboriginal education

When a 'type' of child was referred to in education texts that discussed challenging behaviour, there were clear delineations between disciplines. Sociology, for instance, did not speak of the in-actively challenging child, nor did psychiatry speak of the re-actively challenging child. In this sense the types of child were very closely related to the discipline of the text.

With the exception of a few, the curriculum and pedagogy and behaviour management and SEN education texts that we surveyed tended to focus less on the teacher and the structures surrounding the child and more on the child, and did so in ways that medicalized.[4] While behaviour management and SEN texts variously spoke of both the in-actively and pro-actively challenging child, it was the latter that dominated. These texts deployed notions of faculty, self-control and choice to assert that the challenging behaviour was a pro-active attempt for the child to fulfil a psychological need – that is, the behaviour functionally served the child. Behaviour management texts tended to describe that behaviour was learnable and thus used behaviourist and functional behaviour theories to posit the best ways to manage the pro-actively challenging child (and explicitly teach them more appropriate behaviours). Occasionally, these texts spoke of the in-actively challenging child. Firstly, the in-actively challenging child was spoken of insofar as certain behaviour was attributed to gender, and so biological differences. In these cases boys, in particular, were framed as innately (and in-actively) presenting with more challenging behaviour than girls (e.g., Brent, Gough, & Robinson 2001; Konza, Grainger, & Bradshaw, 2001; Marsh, 2004). Also, these texts occasionally spoke of the in-actively challenging child as the child with undiagnosed and unremedied biological dysfunction; for example, the child with undiagnosed ADHD 'can't help' his/her poor classroom behaviour.

By contrast, education texts[5] that focussed on inclusive education and reflective practice, Aboriginal education and sociology of education tended to consistently speak of the re-actively challenging child (e.g., Connell et al., 2010). This was evident because these education texts primarily responsibilized the teacher to create, critique and facilitate an environment and curriculum that was structured to support children; that is, to devoid the schooling structures and experience of that which may trigger a re-active challenge from the child.

In demarcating the different 'types' in these education texts we are making differentiations between biomedical and biopsychosocial discourses – discourses that are arguably difficult to disentangle. Engel's (1977) biopschyosocial theory provides a construct for demarcating biomedical and biopsychosocial discourses of challenging behaviour. Engel's theorization of these perspectives rests in variations of their causal attribution of behaviour. In explaining the biomedical perspective, he argues, 'The dominant model of disease

today is biomedical, with molecular biology its basic scientific discipline … [it] demands that behavioural aberrations be explained on the basis of disordered somatic (biochemical or neurophysiological) processes' (Engel, 1977, p. 130). This provides a way to name and describe the biomedical view of challenging behaviour, where the cause is attributed as entirely 'within' the child. The naming of these discourses is reflective of the causal attribution ascribed to challenging behaviour (see Table 53.2).

We have represented causal attribution as a continuum, with the biomedical on the left, biopsychosocial in the centre and ecosocio on the right. As we argue, it is not the case that medicalization only occurs when a biomedical attribution is used; rather, whilst the biomedical is the most obvious, medicalization of challenging behaviour can occur in biopsychosocial or ecosocio accounts. This is important to consider as it underscores the extent to which processes of medicalization can be bound in schooling and education. Importantly, each set of these pedagogical discourses (Behaviour Management, SEN, Inclusive Education, Aboriginal Education and Reflective Practice) make possible certain teacher subject positions, and as we will outline, these subject positions can become bound up with practices of medicalization.

Although there are a numerous ways that these discourses can be of influence, a key one is the influence on the teacher, especially the pre-service teachers that read and learn from these texts in university settings in many countries worldwide. As might be anticipated, education texts that draw on biomedical discourses are the most likely to have medicalizing overtones while ecosocio discourses have the least. The ecosocio discourse is characterized by the understanding that behaviour is socially located and it is the social structures, physical environment, artefacts and relationships surrounding an individual that most significantly shape and prompt their behaviour. That is not to say that the individual is seen as non-agentic. Rather, there is a subtle move away from emphasizing the individual as the 'causal' site of behaviour; biology is de-centred as a concern and psychology's theorization of the individual's agency, self-control and responsibility to 'learn' desirable behaviours is tempered. At least partly, this discursive move is supported by particular conceptions of the adult/child relationship. That is, the causes of behaviour are located primarily '*around*' rather than '*within*' the child.

Table 53.2 Naming the three discourses of challenging behaviour

Biomedical   Biopsychosocial   Ecosocio

behaviour within child ←— causal attribution —→ behaviour socially located
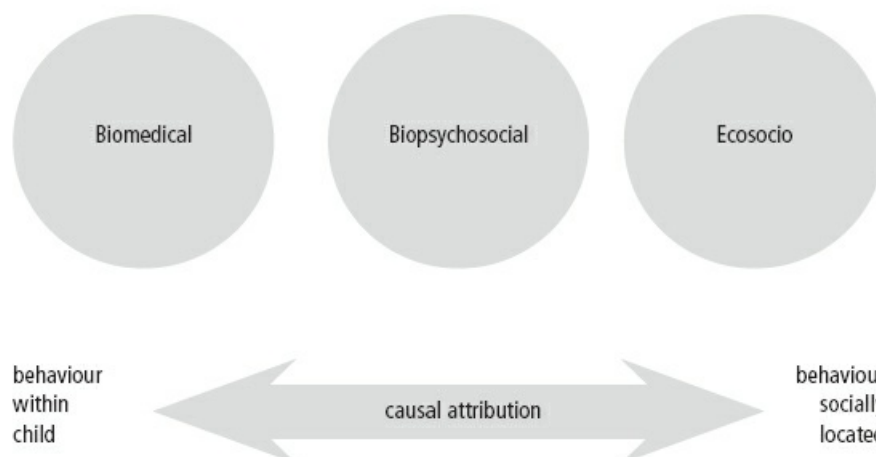
Discourse objects	The in-actively challenging child	The pro-actively challenging child	The re-actively challenging child
Who is speaking? (by discipline)	Medicine Psychiatry Neuropsychology	Clinical psychology Developmental psychology Educational psychology	Sociology Ecological psychology Critical psychology
Education texts	Special education needs (SEN) Behaviour management		Inclusive education Reflective practice Sociology of education Aboriginal education
Possible teacher subjectivity continuums	Non-expert	Manager	Supporter

Education texts that draw on biopsychosocial discourses while numerous and varied are especially represented in SEN. This, we contend, poses a significant influence on medicalization in education. One of the reasons that this is influential in SEN and beyond is due to the capacity for 'undefined medicalization' and the impacts of scientificity (Foucault, 2004), which can occur in more subtle ways. For example, because these education texts use discourses that aren't biomedical or advance at the outset a biological cause, they appear to be not medicalizing. However, this is often far from the case. Furthermore, there are the snowballing influences of other discourses that can serve to reinforce or even build upon medicalizing viewpoints (Harwood, 2010b).

As the name suggests, biopsychosocial discourses sit in the middle of the continuum of causal attribution for behaviour that spans from 'within child' to 'socially located'. In this way the biopsychosocial discourse provides a theoretic middle ground for understanding challenging behaviour. Importantly though, the biological premise of the biomedical discourse (that the problem is within the child) is accepted in the biopsychosocial discourse.[6] It is the *psychological* factors contributing to the biopsychosocial understandings of behaviour that distinctly differentiate this discourse from the biomedical and ecosocio discourses.

Arguably, biopsychosocial discourses for understanding behaviour function as an ideal combination of medicine and psychology. The point of conceptual overlap in the combining of these disciplines is essentially a biological one. However, this biological point of agreement is also a point of schism. For example, the biomedical discourse holds that behaviour is symptomatic of biological dys/function and it follows that a

person, or their environment, is not to be blamed or held entirely responsible for their behaviour. Unlike the biomedical perspective, the biopsychosocial perspective holds that learning from teachers, peers, home-life and psychotherapy can positively impact on dys/functional behaviours. So then, the central defining tenet of the biopsychosocial discourse of challenging behaviour rests on the distinctly psychological tenet that, although biology is a factor, ultimately, behaviour can be learned. Yet, while appearing non-biomedical and in many ways, as countering a medical view, the biopsychosocial discourse does in many instances, support medicalizing perspective. This discourse can and does, medicalize.

TAKING STOCK OF THE IMPACTS OF 'UNDEFINED MEDICALIZATION'

Discourses of behaviour could be simply named according to the disciplines that offer statements on the topic. What is problematic in this approach is that this can elide the ways that medicalization occurs in education texts. The disciplines of medicine, psychology, sociology and education did not offer the unique 'discursive regularities' on 'challenging behaviour' that traditional conceptions of 'discourse as discipline' seemed to warrant.

By re-casting of discourses of challenging behaviour according to causal attribution rather than discipline it is possible to see how an undefined medicalization progresses – and how, as Foucault (2004) suggests, this forms part of an apparatus that, to put it in strong terms, socially controls children in schools. This can be demonstrated in a vertical assessment of Table 53.2. Reading down the columns, each discourse of challenging behaviour can be seen to generate and delimit certain conditions of possibility for pedagogy and teacher subjectivities and gives rise to different possibilities for talking about children with challenging behaviour in educational contexts. Each discourse also maps against specific pedagogic discourses and gives rise to unique possible subject positions for the teacher.

For instance, particular clusters of pedagogical discourses can generate subject positions for teachers in relation to the challenging child. Teachers who speak of the in-actively challenging child may position themselves as 'non-expert' in relation to children with challenging behaviour. This teacher might only see him/herself as a non-expert because the challenge is biologically innate and so irreparable by means of teaching. In this scenario there is very little 'teaching' as it were, to do. One very problematic interpretation is that the teacher is no more than the enforcer of treatment modalities; ensuring medication regimens are adhered to. In effect the teacher becomes a part of the assemblage ensuring compliance (Allan & Harwood, 2013).

Ecosocio discourses, by contrast, would describe a re-actively challenging child, and position teachers along a continuum of possible subject positions where the teacher is a supporter. The teacher may question if the physical environment, classroom routine, relationships, lesson design, timing, pacing, content and resources are supportive. They may be encouraged to query if lessons are engaging, or whether the teachers are culturally sensitive to their students' lives. Education texts using these discourses reminded teachers to constantly reflect on curriculum and pedagogy. From our assessments, understanding behaviour in this way has a significant impact on possibilities for talking about and responding to individuals with challenging behaviour. In this sense, education texts that drew the most on ecosocio discourses tended to medicalize the least.

In our view, it is the biopsychosocial discourse that has the most potential to medicalize. The teacher who

draws on the biopsychosocial discourse *manages* a pro-actively challenging child. This positions the teacher along a continuum of expertise that has a focus on 'managing' the child. When the teacher manages using these biopsychosocial discourses they do so with the knowledge and experience to successfully carry out a raft of potentially-medicalizing activities. These include: conducting functional behaviour assessments; identifying reinforcers; designing and employing token economies; promoting positive feedback; discriminating appropriate use of extinction strategies; and explicitly teaching target behaviours. While we readily acknowledge an interlocutor who might raise the objection 'these are psychological strategies and not medical' we stress the effects of *undefined medicalization*. Because of their conceptual relation (or overlap) with biomedicine, these actions are implicitly linked to medicalizing knowledge, and documentation processes such as functional behaviour assessments may become documentary springboards to diagnoses or medication reviews or to referrals to school counsellors.

Positing three discourses of challenging behaviour is not tantamount to offering three definitions. The categories offered are far too broad and overarching for that. The broadness of the discourses works to encompass 'the mess' of definitions found in education texts and policy documents. This provides a framework via which it is possible to grasp how medicalization is present in the education texts used in pre-service teacher programs. By offering these three discourses of challenging behaviour, it is possible to unravel some conditions of possibility as to how these are talked about, who may do the talking and to what effect. It would be wise, we suggest, to dig deeper into the education texts that are used, and at the very least, incorporate education about medicalization and critique of these discourses in pre-service teacher education courses.

CONCLUSION

How then, do we work with these tendencies to medicalize in a medicalization-rich culture? Is it possible for knowledge (and the special education texts that draw on this knowledge) that has the capacity to medicalize to be used to inform, as opposed to medicalize? We can identify the tripwires that spark the medicalized route. Carter, Clayman and Stephenson (2006) found that the most frequent of the challenging behaviours identified by primary school teachers were: being off task (lacking *attention* to the task at hand); talking out of turn (not observing conventions of *silence* in educational contexts); and, being out of their seats (unwanted physical *mobility* during seatwork). Seatwork, as Adams (2006) and Graham (2006a, 2006b) point out, is highly valued in contemporary educational contexts. What if we taught pre-service teachers about these tripwires and asked them to consider how social activities such as seatwork can become objects for a medicalizing gaze? Might it be possible to encourage teachers to reflexively engage with their own practices that might medicalize the social and in so doing to make the move to medicalization more transparent? At the very least such analysis would put teachers in an informed position where they might weigh up the knowledge that is applied to understanding the children in their care.

Perhaps what is most at stake is the lack of awareness (and debate) of medicalization and medicalizing processes as opposed to medicalization in and of itself. Medicalization is not something confined to and the responsibility of those employed in the discipline of medicine. To depict medicalization in this manner would be foolhardy, and risks missing the extent to which education is involved. We would be wise then, as Fassin (2011) sought, to 'complicate somewhat the paradigm of the medicalization of drug abuse' (p. 92) to strive to

complicate the medicalization of children and young people in special education. Toward this Fassin (2011) suggests considering medicalization from the viewpoint of 'problematization', arguing:

> Problematization avoids considering a particular configuration of reality either as an 'anthropological constant' or as a 'chronological variation' and allows analysing 'questions of general import in their historically unique form'. (Fassin, 2011, p. 87 citing Foucault, 1984, p. 56)

The point is not to find a solution by invoking a structured analysis of medicalization and applying this to special education. Rather, it is to encourage problematizing medicalization, which could include problematizing how special education might be simply depicted as medicalizing. It is more important, we suggest, to consider how medicalizing practices may or may not be present and to what effect. For this reason, biopsychosocial discourses demand more careful attention. It is easier to identify, and consequently, problematize biomedical discourses. For instance, take the teacher who believes the cause of behaviour to be biological and consequently sees himself/herself as a non-expert on challenging behaviour. If this teacher is talking of the in-actively challenging child, we might readily assume a biomedical understanding is being implemented. But what of the biological overlap in the biopsychosocial? Might the teacher who describes responding to a pro-actively challenging child also be influenced in particular ways by biological beliefs?

These are valuable considerations because one of the problems with a medicalizing thesis of behaviour is the impact on the teacher, whether it convinces them of a biomedical standpoint or prompts confusion when drawing on biopsychosocial discourses. Such confusion can occur when a teacher using a biopsychosocial discourse draws on biological interpretation of behaviour and consequently oscillates between biological and psychological explanations. This leads to switching understandings and responses between for example the child can't change or the child can. Moreover, one of the seductive properties of the theoretic middle ground (the biopsychosocial discourse) is that it positions the teacher as expert in educational interventions to teach and modify behaviour. Yet this very positioning as expert can be the prompt for undefined medicalization to occur.

Being aware of medicalization, and especially the teacher's role in this process, is important for reflective practice in special education. Indeed, it is perhaps the issue of reflective practice that stands out to us as the fundamental reason for rigorously engaging with the concept of medicalization in special education. We must, we contend, be aware of the lines that are drawn by ourselves as much as by others:

> In practice we must draw a line between what counts as medical care and what does not. The question is where to draw that line. What is a disease and what is not? What should be treated medically, by physicians or medical personnel, and what should not? (Szasz, 2007, p. xiv)

We might do well to take an active stance in where we want to draw the line, and we would do well to educate our future teachers that part of their practice (whether they like it or not) is not just deciding where they sit on that line. By virtue of working in education and in special education in particular, they are making decisions and drawing a line on a very regular basis.

NOTES

1 The name 'ecosocio' is used to refer to a blend of the names of several disciplines that deploy this unique knowledge of challenging behaviour: 'ecological' (from 'ecological psychology') and 'sociology', and we use it to portray the cross-disciplinary utility of this discourse.

2 These texts included coursework textbooks and readings used in pre-service teacher education.

3 In our analysis, we examined the New South Wales Professional Teaching Standards. New South Wales is the largest Australian State, and provides a good contemporary case study on the education texts that influence teacher education degree programs. We specifically used 2.1.5, 2.1.6 and 5.1.5. of the standards as 2.1.5 and 2.1.6, which were the teaching standards that explicitly mention 'challenging behaviour' (New South Wales Institute of Teachers [NSWIT], 2006, p. 6). Standard 5.1.5, whilst not explicitly mentioning challenging behaviour, is the first in a progression to standard 5.4.5, which does explicitly mention 'challenging behaviour' (NSWIT, 2006, p. 8).

4 Examples of texts that were exceptions include Groundwater-Smith, Ewing, & Le Cornu (2007). Curriculum and Pedagogy and Behaviour Management texts included Brady (2003); Konza, Grainger, & Bradshaw (2001); Lovat, Toomey, Clement, Crotty, & Nielsen (2009); Rand & Shelton-Colangelo (1999); Whitton, Sinclair, Barker, Nanlohy, & Nosworthy (2004). The Special Education Needs (SEN) texts included Allen & Cowdery (2009); Hardman, Drew, & Egan (2004); Huntington, in Hilton & Ringlaben (1998); Taylor (2003); Vaughn, Bos, & Schumm (2000).

5 Texts that focussed on inclusive education and reflective practice included Conway (2008), and Wheeler, in Hilton & Ringlaben (1998). Texts on Aboriginal Education included Australian College of Educators [ACE] (2002); Burridge (2006); Eades (1993); Forrest (1998); Malin & Ngarritjan-Kessaris (1999); Martin (2005); Minniecon (2005); New South Wales Board of Studies (2003); Riley-Mundine (2007); Tyhhuis, Halse, & Robinson (1999).

6 Whilst we use the word 'biopsychosocial' to describe a discourse, it is important to note it was originally the name of a single theory. Engel (1977) presented biopsychosocial theory both in defence of biomedical attacks on the psychiatric definition of mental illness and as a call for a more holistic model of patient care.

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Special Education and its Contribution to the Broader Discourse of Education

Seamus Hegarty

INTRODUCTION

Contemporary writers on special education face a particular challenge. They have to take account of quite distinct frames of reference, each with its own history and discourse, which are not always well aligned with each other. The first frame of reference is the situation of the individual child and young person whose learning may be compromised by a mixture of innate, environmental and interactive factors. A second frame of reference derives from the school and its associated systems dedicated to promoting learning – the curriculum, assessment, support services, policy and resourcing. A further frame of reference centres round the future of schooling and issues to do with quality of life and reasonable expectations.

This serves to highlight the overarching challenge posed by the present enterprise. Producing a handbook in any domain of education is an ambitious task, doing so in special education all the more so because of the dynamic nature of the field and the multiple frames of reference that bear on it. What this handbook provides is a mapping of a changing – and contested – domain, a distillation of thinking about particular parts of it and a review of what is known about specific areas of practice. Contributions range over the vastly different situations of individuals and give rich, nuanced accounts of their learning environments. To the extent that many of them are cutting-edge in their knowledge of the field, they point suggestively to the future in terms both of roadblocks to circumvent and pathways to follow.

Special education is important both in its own right and as a key dimension of general education, and handbooks such as this serve a uniquely valuable function in relation to it. To the extent that it has done its work well it will continue as a valuable resource for student and scholar, for policy-maker and practitioner, for some considerable time.

This volume is more than a quarry, however, or – to give it a contemporary metaphor – a database which can provide information, argument, inspiration, and so on. That function is important, not least after three decades that have seen a plethora of publications in special education as authors and publishers alike have been assiduous in creating and responding to a publishing market. This proliferation of writing has enriched our field and enhanced both policy and practice within it. By its very nature, however, such writing, addressing particular topics and serving diverse purposes and audiences, does not set out a view of the field as a whole and indeed risks purveying a fragmented view of it.

The opportunity here is to stand back and take stock of an area that has seen remarkable if uneven development over the past half-century. This is not in the spirit of producing an encyclopaedic account – an unprofitable enterprise anyway given the continuing evolution within the area and the fact that strongly contested views are held about key parts of it. What it does is provide a perspective on achievements to date

and some clarity as to what remains to be done. We can ill-afford complacency and a resolute focus on the continuing deficiencies, whether it be of provision or policy, is fully justified, but it is good too to remember how far we have come. For all that many children and young people still receive a substandard education – and in too many countries still no education at all – the debate is no longer about whether everybody *should* receive a high-quality education, but about the factors that get in the way of this and how to ensure that it does happen.

By the same token, the handbook is forward-looking: by recognizing and scrutinizing good practice which has broad resonance, by identifying present weaknesses and knowledge gaps that need to be addressed, and, above all, by exposing the tensions in debates about how to secure the best possible education for all our children and young people, it marks out, if not the road ahead, the terrain through which we have to travel and shows the pathways through it that are most likely to be productive.

The first version of the handbook, published in 2007, offered a comprehensive account of the field. It has been widely used and much commended by academics, researchers and practitioners. Its very success, however, prompts the question: Why a new edition? Is there need already for a replacement volume? Have there been sufficient developments in the field to justify setting aside a tome that was deemed authoritative a few short years ago?

The first handbook certainly has much to commend it still and is far from obsolescent. There are at least four reasons, however, why an update is timely. First, there has been a good deal of research since the previous publication that serves to enhance our understanding of children's learning, what inhibits and what supports it. Thus, previous chapters covering topics such as pupil voice, friendship and peer relations, and the use of teacher assistants, have been updated to reflect new research in these areas. Likewise, the chapters on learning and teaching have been strengthened through reference to research conducted since the previous volume was published. A new chapter by Goswami sets out advances in cognitive neuroscience that bear on special education.

Secondly, there have been changes in policy and practice at school, district, national and international levels that have altered the landscape of special educational provision. Many chapters in the current volume address these changes and they constitute a treasure trove of up-to-date information. Few countries perhaps have seen such sustained discussion of these matters as the US and England. McLaughlin and Dyson see standards-based reform as the common driver in both countries. With greater distance from the No Child Left Behind legislation in the US (2001) and Every Child Matters in England (2003) and a plethora of reforms in both countries, they use their chapter to bring the policy picture up to date and point to the future in ways that would not have been possible seven years ago.

Assessment was treated in the previous handbook with chapters on self-assessment by Bourke and Mentis and on accommodations by Thurlow et al. Both of these have been updated but there are four new chapters which greatly strengthen the content on assessment: a chapter on summative assessment by Cumming and Maxwell; a chapter on dynamic assessment and cognitive intervention by Kozulin; and two chapters that examine different aspects of assessment for learning by Hayward and by Hollenweger, respectively.

Technology in all its guises is increasingly important in education as in society at large. The previous volume had just one chapter on special education technology research. Woodward and Ferretti update their chapter in the current volume, and there are further chapters on assistive technology and virtual reality in the

classroom. In addition, Rose's chapter on universal design for learning has specific implications for the deployment of technology.

There has been a considerable expansion of text in relation to the international dimension of special education. Where the previous volume had one chapter dealing explicitly with this, there are now five. Opertti, Walker and Zhang locate special education in the evolving context of international development, Powell offers a perspective from comparative special education, and Rix and Sheehy draw on a study of 50 countries in their account of inclusive pedagogy. There are also individual chapters on special educational provision in China and in India, about which little is known outside their respective countries.

A third point of reference is the reception accorded to the first handbook and the reactions to it. Both formal and informal feedback has been helpful in identifying ways in which it could be improved and made more useful to the field. Thus, the technology and international dimensions have been strengthened, teacher professional development has been given more attention, and there are new chapters on working with families and inter-agency working.

Finally and most importantly, a new handbook provides the opportunity to take account of new thinking about the parameters of children's leaning. For much of the 20th century, a static view of children's learning difficulties prevailed, with fixed limits to potential seen as the norm and correspondingly rigid provision. The landscape began to shift from the 1970s with landmark developments such as the Education of All Handicapped Children Act in the US in 1975 and the publication of the Warnock Report in the UK in 1978. Change has been slow and uneven, however. Traditional views of disability and special educational needs which see them as relatively enduring characteristics of individuals are still deeply entrenched, and there is great diversity across countries in the proportion of children sent to segregated special schools.

The past decade has seen conceptual shifts, however, and this volume provides the opportunity to give account of them. Ainscow's chapter on effective schools locates inclusive education and student success in recent research which highlights the range of factors outside the individual and the school which bear on student learning – socioeconomic features of the environment, policies on school choice, competition between schools, and so on. Gallagher has updated her chapter on orthodoxies in special education and challenges to them; this gives an up-to-date account of the battle between medical and social models of disability and a high-level overview of the inclusion/segregation debate. Several new chapters – Kozleski, Artiles and Waitoller, Pijl, and Connor – deal with social justice and bring important new perspectives to the debate.

KNOWLEDGE IN EDUCATIONAL DISCOURSE

This is a handbook of *special education* but its import goes well beyond the discourse and set of practices commonly associated with that area. Though often marginalized, special education discourse, particularly as represented in an authoritative volume such as this, provides the opportunity to illuminate and challenge the broader discourse of education in a unique and powerful way. This arises from the complex nature of knowledge in education and how agendas are set and decisions taken within it. Both policy and practice in education are shaped by multiple inputs: practical, experiential, ideological as well as the strictly epistemological. General education discourse frequently fails to distinguish clearly between these different inputs, or even to acknowledge them adequately, and it may well be that the clarity of focus within special

education discourse, as provided by a handbook such as this, can be instructive more generally.

The nature of the knowledge base that underpins educational action and the relationships between the different kinds of knowledge within it are central to any understanding of educational progress. Research is a key contributor to this knowledge base but, while it is of particular interest to the academic community and has a uniquely important role, it is but one strand among several. The requisite knowledge for securing educational progress encompasses a diversity of knowledge types, each with its own epistemology, truth criteria and so on.

A comprehensive account of special education, such as contained in this handbook, provides the opportunity to ground these epistemological considerations in a concrete area of practice. The central question is: What knowledge underpins educational action, in the sense of clarifying options, informing decisions and enabling expert action? There are of course many actors in the educational arena and their work entails different knowledge requirements. Policy-makers and teachers are the two dominant groups and, while there is overlap between them, the knowledge drivers of intelligent action are different for the two groups. By examining these drivers in the case of special education, a more nuanced and accurate understanding of knowledge in education more generally can be derived.

INFORMING POLICY

A great deal has been written about the impact of research on policy, and writers from Weiss (1977, 1979) onward have insisted that it is not a linear process, that policy is seldom a direct response to research findings and that research, if contributing at all, must be seen in terms of its interplay with other, generally more powerful factors. Different models of research utilization and the policy process in education were outlined in an OECD/CERI report (1995), and a number of writers have attempted to capture the complexity of the area. Thus, Broekkamp and van Hout-Wolters (2007) propose that there are four models by which the research-practice gap is negotiated: research development diffusion; evidence-based practice; boundary-crossing practices; and knowledge communities. (For a critique of the mainstream consensus, see Hammersley, 2005). Despite the different emphases within the literature, there is a consensus that is shared both by those who push for a greater research engagement in policy-making and by those who question what they regard as the perversion of research to serve doctrinaire interests, that the research/policy interface is problematic and that the link between research and policy must be seen within a multi-dimensional framework.

Given this, it is disappointing that so much discourse on educational research and its impact on policy continues to be predicated on a linear model. Research is routinely expected to resolve difficult policy questions and, just as routinely, excoriated for not doing so. One can speculate on the reasons for this disjuncture but it is likely that one of them is the common failure to comprehend just how complex the interplay of factors impacting on policy is.

The opportunity here is to see in concrete terms how limited this linear perspective is and to draw on special education literature, specifically in relation to policy issues, in order to build a better understanding of how policy in education is formed. Consider the question that has preoccupied policy-makers for more than half a century now: Where should pupils who have difficulties in learning or adjustment be educated? And the

associated question: What kind of education should be offered to them? There have been major policy shifts in regard of this question, as documented throughout this handbook. In broad terms, we have moved from a situation where some young people were deemed to be ineducable, others could only attend segregated schools, often to be offered an impoverished curriculum in them, and yet others were allowed to attend regular schools but little was expected or demanded of them, to a quite different situation where all children are expected to benefit from education and where the regular school and mainstream curriculum frameworks are the options of first choice for every pupil.

Practice is of course uneven and the policy shift is far from complete. There can be no doubt, however, that there *has* been a policy shift, even a dramatic one, forcing the question: Why? Where has this policy shift come from? What factors have contributed to the change in thinking and, in particular, where does research fit in among them? These are important questions, and the better we answer them, the more clearly we can understand the process of policy formation. And, of course, the clearer our understanding of policy influences in the past, the better placed we are to secure beneficial policy development in the future.

Successive chapters in this handbook have considered the emergence of special education both in its own right and as a discrete area for consideration within education more generally. Thus, Winzer traces the history of special education from the Enlightenment ideas of the 18th century through the charitable movements of the 19th and early 20th centuries, along with the institutionalization that often accompanied them, to the many strands that shape contemporary thinking. These strands include the emergence of the common school in the USA and, rather later, the comprehensive school in some European countries; various philosophical and psychological positions; the professionalization of special education and developments in teacher education; and reforms arising from advocacy movements and legislation.

Other contributors examine particular topics in more detail. The ferment of ideas associated with eugenics and Social Darwinism on the one hand and with the emergence of empirical psychology on the other is scrutinized by Thomas. While this history goes back over a hundred years, many of the ideas have powerful resonance still, not least in the context of measured intelligence and the assessment of pupils' cognitive and academic capacities. Gallagher draws attention to the contested and shifting definitions of disability, as noted above, and demonstrates the profound moral and practical consequences that follow from the associated tensions.

Special education is of course a social construct, even if social theorists have paid little attention to it. Riddell brings a critical perspective from sociology to bear in her scrutiny of the social theories that shape contemporary understandings of special education. Rioux focuses on the legislative context and the explicit efforts to address equity issues and improve provision through legislative action. As might be expected, inclusive education is a theme that runs through the handbook: Ainscow, Slee, and others are centrally concerned with inclusive education, what it means and how it can be promoted. This brings in further perspectives that have impacted strongly on views of special education. These include school improvement, pedagogical developments, the marketization of education and Education For All.

It is worth adding that these various factors have played out differently in different countries. This can be illustrated by looking at the legislative activity of the 1970s. This was a decade when the USA and some European countries – Britain, Denmark, France, Italy, Norway, Sweden – introduced legislation to regulate special education and, generally, to move toward greater placement of pupils with special educational needs in

regular schools. If we compare the USA with Italy, say, we can see major differences in the genesis, context and implementation of the respective laws. The key US legislation, the Education for All Handicapped Children Act in 1975, grew out of prior federal legislation going back over a decade but also drew on research evidence and contemporary understandings of learning difficulties, their assessment and remediation. It attempted to be comprehensive and made numerous stipulations regarding identification, service delivery, provision, evaluation and funding. Italian legislation (initially in 1971 and later in 1975) had quite a different genesis, owing much less to research evidence on the efficacy of different ways of educating pupils with disabilities and driven essentially by an ideological conviction that children should not be segregated from their peers and, in particular, should be educated alongside them. Implementation in the US was strongly driven by judicial processes and professionals became accustomed to having to defend their actions, if necessary – and quite frequently – in courtrooms. In Italy, by contrast, implementation was driven by a public and professional consensus on de-institutionalization and legal proceedings were not a significant feature.

The resounding message from all of this is that the development of special education has been determined by many factors – conceptual, political, juridical and practical – and its present shape in a given country is the result of a complex of interacting factors. If we take practically any aspect of special education, single-factor explanations of the current state of play are unhelpful, as well as generally being incorrect. Advocacy, legislation, new concepts of disability, school reform and better pedagogy are all important but none of them is sufficient on its own to account for the policies that have emerged. By the same token, if we are concerned with future policy-making, we must allow for the multi-dimensionality of policy formation and make our policy inputs accordingly.

This is especially an issue for research. Because of the particular nature of the knowledge that research produces with its explicit procedures, generalizability (in some cases) and scientific authority, many in the research community and outside expect it to be uniquely influential on policy. The reality as demonstrated here is that research is but one source of evidence among several. In education, evidence is also drawn from inspection, from theory and from experience. Furthermore, evidence is but one influence on policy. Again in education, other influences include politics, media/lobbying, tradition and of course resources. This is a simplified, schematic picture since the different elements interact with each other, but it serves to show both how research does play a role in formulating policy and why that role can on occasion be relatively modest.

Table 54.1 Movement toward inclusive education: Motive factors and the underpinning knowledge bases

Factors	Knowledge bases
Backlash against categories	Theory
	Research
	Pedagogic practice
Improved assessment	Theory
	R & D
	Pedagogic and assessment practice
Comprehensive schooling	Ideology
	Public debate
	Research
	Pedagogic experience

Information on practice elsewhere	Visits/descriptions
	Evaluations
Comparative studies	Research
Human rights debate	Public debate
	Campaigning

An earlier account by Hegarty (1997) provides an example of the process at work. This attempted to set out the factors that sustained the movement toward inclusive education over a 40-year period, in relation to the knowledge bases that underpinned them (see Table 54.1).

While this account may need updating, given the substantial developments of the past decade, it does serve to exemplify the diversity of the knowledge base and the complex ways in which research contributes to policy in education.

IMPROVING PRACTICE

Quite different issues come into play when we turn from policy to practice. Just as in the case of policy, there is a prevailing misconception that needs to be challenged. This has to do with the link between research and teaching, and the common assumption that effective research is that which leads to direct improvement in practice. In this view the purpose of research is to identify best teaching practice, dispense 'tips for teachers' and generally equip teachers with the classroom skills they need. Besides patronizing teachers' professionalism *and* setting researchers an impossible task, this view of research is fundamentally misconceived. It fails to take account of the complex and subtle ways in which research and practice engage with each other, as well displayed in the NFER study of the research-engaged school (Sharp, Eames, Sanders, & Tomlinson, 2005). This study presents vignettes from schools which sought to put research at the heart of their practice, covering topics from the role of rhyme in early language skills to promoting parental involvement and from the use of interactive whiteboards to dealing with challenging behaviour. It demonstrates both the power of research to impact on practice but also the intricacy of the relationships between research and practice on the ground.

The ultimate purpose of special education – and justification of the very considerable expenditure on it – is to secure the best possible education for pupils who learn with difficulty. Historically, many such pupils received a raw deal from schools and had their learning difficulties compounded by a substandard educational offer, and the contemporary challenge is to address this schooling deficit through better teaching, more appropriate curricula, improved support structures, and so on. All of this depends critically on securing improvement in classroom practice, and it is not surprising that there is keen interest in 'what works'. What pedagogical techniques work best with different kinds of pupils? What forms of school structures are best for including all pupils with their peers? What forms of support are most effective?

These are reasonable questions and a good deal of attention has, quite properly, gone into addressing them. Research stimulated by these questions has added greatly to our understanding of pupils who learn with difficulty or whose behaviour is challenging, and their education has been beneficially informed by the resultant research findings. A significant difficulty arises, however, when such research knowledge is given undue focus or is seen in isolation from the rest of what teachers bring to the classroom.

A key point of departure is to appreciate that teaching is a complex, knowledge-based activity. It comprises

a multiplicity of cognitive, affective and interpersonal elements, and teachers draw on these elements in diverse ways in response to the different teaching/learning situations they encounter. So far as the knowledge base is concerned, this can be described in various ways. Polanyi's (1958) distinction between tacit and explicit knowledge has been widely used, most notably for our purposes by Nonaka and Takeuchi (1995) in their account of knowledge creation in business and developed by Hargreaves (1998) to model teachers' role in knowledge creation. Gibbons et al. (1994) categorized contemporary knowledge production in terms of a shift from Mode 1 – traditional knowledge production as represented by disciplinary research and a separation between basic and applied research – to Mode 2, where knowledge production is transdisciplinary, problem-driven, with social context and values an integral part of the problem's definition, and tending to blur the distinction between fundamental and applied research. While the Mode 1/Mode 2 framework has been developed in the context of science and technology, many facets of Mode 2 knowledge seem highly pertinent to education – the focus on the context of application and problem solving for particular purposes, transdisciplinarity, the broad range of user involvement and the importance of social accountability.

Both of these models have their roots outside education. We have to turn to pedagogy for ways of capturing the knowledge bases which are intrinsic to teaching. Schulman (1987) developed the term 'pedagogical content knowledge' as a way of pulling together the various knowledge bases which should inform teaching. This concept has provided a framework for a certain amount of research into teacher knowledge, including, for instance, a significant British study by Turner-Bisset (1999) who used it to frame an empirical account of the knowledge activities of primary teachers. Her model of the knowledge base for teaching comprises no fewer than 11 distinct sets of knowledge, covering subject knowledge, teaching knowledge, content knowledge of learners and knowledge of self.

Hegarty (2000) has drawn on these perspectives and Lonergan's (1957) philosophical analysis of common sense to put forward a model of how the diverse knowledge and skill inputs come together in the classroom. This model is focussed on the 'teaching moment', where the teacher is interacting with one or more learners so as to stimulate and direct their learning. It posits the existence of a number of incomplete sets of relevant insights (and competences) which are completed in various ways in classroom practice. These sets include theoretical inputs, pedagogical skills, research findings, experience-based insights, pedagogical knowledge, subject knowledge and other knowledge. Figure 54.1 displays such a set as a penannular ring. This is an idealized structure since not all components are present in every case. Moreover, the individual components are not separate from each other within a teacher's active cognitive repertoire: subject knowledge and experience cross-fertilize each other, research findings are incorporated into pedagogical skills, and so on. Its purpose is simply to indicate the range of cognitive and skill-based components from which teachers may draw in constructing their teaching behaviour.

Figure 54.2 outlines an instance of a teaching moment or classroom intervention where the teacher has completed a ring with a fresh insight that combines the various elements into a coherent, practical response. Again, not all elements have to be present. What is essential is that the teacher relates the knowledge that is used to the particular situation, and does so by generating a new insight specific to that situation.

To exemplify the model, consider a teacher faced with a pupil who has difficulty in learning. How are the teacher's cognitive requirements and activities characterized in terms of the model? Does the model help to distinguish between effective and ineffective teaching? In the first place, it highlights the multiple knowledge

requirements on the teacher's part and then it suggests the necessary interactions between them. The teacher needs a general understanding of why children have difficulty in learning at school and a more focussed understanding of why this particular pupil is having difficulties. These understandings will draw on a range of theories – child development, cognitive development, the relationship between teaching and learning, nature of schooling – as well of course as on the teacher's own experience of teaching and relating to other pupils. Subject or content knowledge is an obvious requirement. Teaching something which one has not properly mastered oneself is likely to be ineffective. There is a particular difficulty here where pupils who have difficulty in learning are concerned. Because their academic attainments are generally modest, there is a tendency to assume that the subject knowledge requirements on the part of the teacher are correspondingly modest. This may be true at one level, but from another perspective the reverse may well be the case! Teaching the basics of literacy or numeracy to children who are struggling with them is likely to require a fuller and more nuanced grasp of these basics than may be needed in the general case. In algebra, for instance, one might contrast knowledge of complex manipulations with understanding the use of unknowns in elementary equations. The former is required for teaching advanced pupils whereas the latter disappears into the taken-for-granted region. Understanding why abstract formulations are necessary can be a major stumbling block for some pupils, however, and the teacher needs a firm grasp of the rationale for them.
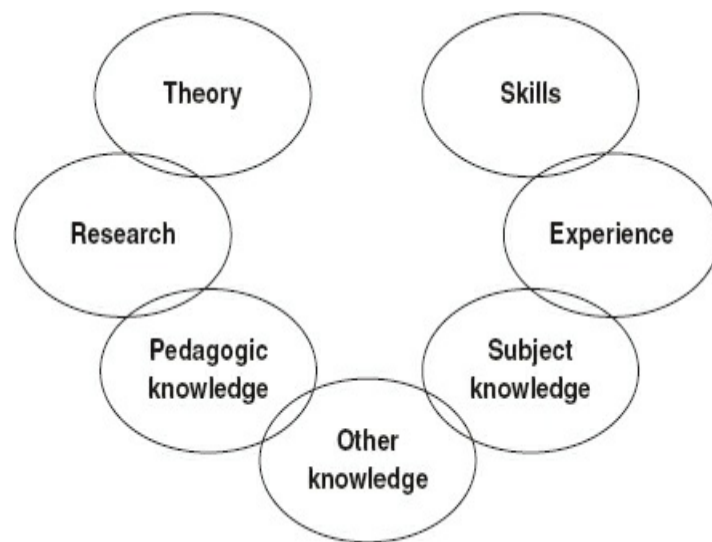
Figure 54.1   Knowledge input to teaching – incomplete ring
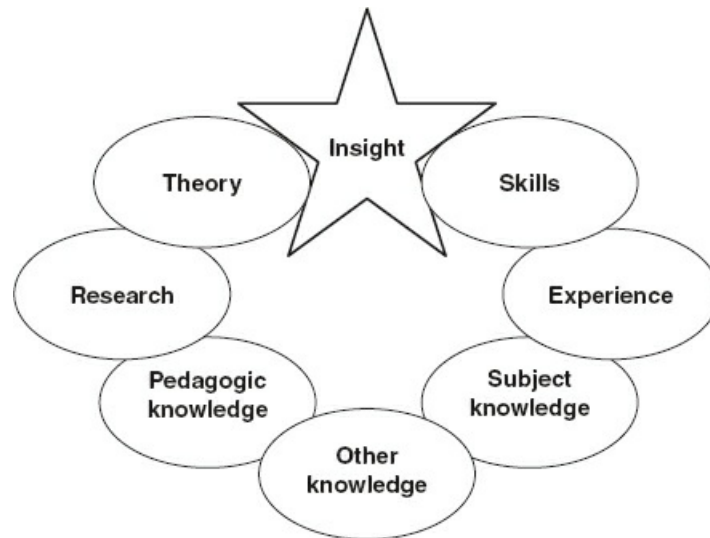
Figure 54.2   Insight to guide teaching moment

A significant contribution made by this handbook is its authoritative overview of the knowledge base of teachers in special education. This is far more than teaching methods, encompassing as it does theoretical underpinnings, assessment philosophies and techniques, and classroom support, as well as teaching/learning approaches The breadth of scholarship here demonstrates the compass and complexity of the knowledge base for teaching and is a powerful argument against the reductionism that is implicit in much discussion about teaching.

A few examples will suffice here. Theoretical perspectives presented range from behavioural theories, as described by Maag, and sociocultural views of learning set out by de Valenzuela. Behavioural techniques have had a wide currency in special education, far more so than in general education. Their use is not simply a technical matter, however. Issues highlighted by Maag, such as the social validity of behavioural interventions, the use of natural reinforcement in the classroom and the behavioural study of emotions, point to a link between teachers' beliefs about behaviourism and whether and how they will use behavioural techniques. Sociocultural theory locates cognitive development within a cultural/historical context and sees individuals' learning as shaped by interactions between them and their environment. It too has led to distinctive instructional approaches in special education such as dynamic assessment, scaffolding and instructional conversation.

A very different approach is offered by Hart and Drummond, who focus on the ubiquitous concept of ability and challenge its dominant role in educational practice. Pupils who learn with difficulty are seen as particularly vulnerable to ability-based thinking which sets fixed – and low – limits to their achievement. Their alternative proposal, based on the concept of transformability, is both a critique of current practice and a pointer to a very different kind of teaching.

Other chapters deal with pedagogy directly. Successive chapters, by Fowler, Ostrosky and Yates; Vaughn, Wanzek and Denton; Dieker and Powell; and Stodden and Roberts, deal with the specifics of teaching and learning in the different phases of education from early years to postsecondary education. Giangreco and Boyle present a review of the literature on the use of teacher assistants in the classroom around the world. As noted, the content on assessment has been strengthened considerably.

A particularly fecund chapter by Kershner deals explicitly with teachers' knowledge and what they need to know about special educational needs. It sets out clearly the multiple dimensions of teachers' knowledge: diverse theoretical inputs; knowledge of teaching strategies, many of them not specific to special education; knowledge of pupils and schools, both in general and in particular; understanding of support structures and how to access and use them; understanding of the web of personal and social factors associated with inclusive education; and new theoretical insights from areas such as genetics. It also includes an appreciation of the fact that some pupils' learning is complicated and the wisdom of not rushing to judgment on an individual child's learning pathways and potential. All of this is set within a framework of how adults learn and, in particular, how professionals move from novice status to expert. For teachers, this takes place crucially within the learning community of the school and everyday interactions in the classroom.

What emerges here is a powerful demonstration of the richness of teachers' knowledge. Research plays an important role but it is only one strand among several, and a proper understanding of teacher knowledge and professionalism has to locate research within theoretical perspectives, experience, knowledge of pupils, and so on. These considerations are not of course unique to special education, as there is a significant overlap between teacher knowledge in special education and in education more generally, but the specificity of this account in special education may be suggestive for the broader discourse of education.

CONCLUSION

Special education has over the years taught a great deal to general education. Its focus, for instance, on differentiation and matching teaching approach to pupil need, use of diagnostic assessment, involvement of parents in their children's learning and so on has been very instructive for education more generally. Procedures developed originally in special education have been taken up and adapted to the benefit of large numbers of pupils who do not fall within the ambit of special education.

What we have in this handbook is a further, powerful source of learning for education more generally. The detailed demonstration that both policy and practice in special education are shaped by multiple inputs should help to challenge the inadequate and often simplistic accounts purveyed in the literature. Educational policy is a construct of many factors and those who would influence policy must be aware of these factors and understand the interactions between them. Expert teaching likewise is a product of many inputs, and both teacher education and school improvement must be cognizant of that.

The hope, therefore, is that this handbook will serve a number of different purposes. It is an authoritative sourcebook on a challenging but important area of educational practice. It will be both a stimulus and a resource for developing future practice, and it can illuminate the broader discourse of education through its clarification of the nature of knowledge in education and how in practice different knowledge inputs contribute to educational policy and practice.

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Glossary

Cristina Devecchi

With the following words, Ian Pumpian opened the foreword to a book on 'self-determination':

> Social movements are always filled with words and word phrases that act as benchmarks and signposts … They focus discussion and debate, policy and practice. As new perspectives develop, new words are added to the list, sometimes necessarily and other times, unfortunately, usurping words that were already there. (Pumpian, 1996, p. xiii)

As he claims, words are indeed powerful tools; they denote and connote, they delimit the boundaries of specific disciplines while simultaneously serving as bridges between them. With time they may become tacit and commonsensical, but they also acquire new meanings and fuel new debates and discussions. Words, especially in contested and developing areas of knowledge, may carry moral and political connotations. Far from being representations of objective constructs and practices, some words are weighted by the burden of rival discourses. Having a glossary for the handbook stemmed from a need for some words and phrases to be defined in order to help an international readership navigate a complex field where some terms may not be well known, and others are contested or have different meanings in different contexts.

This brief introduction describes how the glossary came to be, and how it developed and was revised for the second edition. The first challenge was to choose which terms were important to include for an audience that includes researchers, teachers, graduate and undergraduate students. The second challenge was to define the terms. While there was a desire to be comprehensive, there was also the need to provide a manageable and useful resource. Chapter authors were asked to suggest terms and provide definitions. Many of these have been included. Each chapter was read by two people, the editor and myself, and a first list of words was drawn. Personal knowledge of the field, literature reviews and internet searches were used to draw upon multiple perspectives and clarify meanings. A draft glossary was peer reviewed and edited. The definitions included here are introductory and provided for clarification.

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Ableism

Ableism is a form of discrimination based on the belief that being able-bodied (and/or cognitively able) is superior to being disabled. Ableist assumptions may play out on individual, institutional, and cultural levels.

Academies

In England, academies are publicly-funded independent schools, although they might have a private sponsor. They are free from local authority control and have greater freedom to set their own pay and conditions for staff; the delivery of the curriculum; and, the length of school terms and days (see also *Charter Schools [in the USA]*).

Accommodation

A change in instructional and testing environments that removes barriers for students with disabilities but does not change the construct being taught or assessed (see *Modification*).

Activity Theory (Cultural Historical Activity Theory, or CHAT)

Assumes that goal-directed social activity is the source of human consciousness, knowledge and learning, and emphasizes the activity system as a unit of analysis. Human learning is understood to be embedded in joint activity or practice, and mediated through language, other cultural tools and artefacts. The tools of Activity Theory are often traced to the work of Russian psychologist Lev Vygotsky (1896–1934) and his students Luria and Leont'ev with more recent developments in the work of Cole, Engeström, and others.

Additional (Support) Needs (ASN) – (UK, Scotland)

Term used in the *Education (Additional Support for Learning) (Scotland) Act 2004* to describe any support needed by a child whether arising from a disability or other factors such as family circumstances, ethnicity, or language. In its broadest sense it should be interpreted as provision designed to overcome any barrier to learning experienced by the student (see also *Education (Additional Support for Learning) (Scotland) Act 2004*).

Americans with Disabilities Act (ADA)

The Americans with Disabilities Act (Public Law 101-336) is a wide-ranging civil rights law that prohibits discrimination on the basis of disability and calls for 'reasonable accommodations' to be made so as to ensure employment and education for disabled people (www.ada.gov/pubs/ada.htm).

Applied behaviour analysis (ABA)

One of a number of approaches based on the principles of behaviourism. Now widely promoted as an (early) intervention for children with autistic spectrum disorders (see *Behaviourism*).

Assessment for learning

The UK-based Assessment Reform Group (2002) specifies, 'assessment for learning is the process of seeking and interpreting evidence for use by learners and their teachers to decide where the learners are in their learning, where they need to go and how best to get there' (http://www.aaia.org.uk/afl/).

Assistive technology

Any item, piece of equipment or product system that is used to increase, maintain, or improve the functional capabilities of individuals with disabilities.

Augmentative communication

A system that supplements an individual's method of communication to assist understanding. They can consist of pictures, symbols, drawings and/or text. Computer-based augmentative devices use synthesized or digital speech to speak messages out loud.

Basic education

The level of education considered essential to participate in society. Often confused with primary education, basic education is not limited to age.

Bell curve

A graphical representation of the 'normal distribution' of ability scores (such as IQ) in a population. The statistical concept of a normal distribution sometimes known as a Gaussian distribution after Carl Friedrich Gauss the German mathematician credited with its invention.

Behaviour therapy

A broad term covering a range of interventions designed to change behaviour without the need to focus on the past or to uncover the reason for the behaviour. Many of these approaches such as applied behaviour analysis (ABA) are based on the principles of behaviourism (see below).

Behaviourism

A psychological theory that claims all behaviour is learned. It views learning as a response to external stimuli and focuses on observable behaviours rather than mental activities. Behaviourism has been influential in special education through approaches such as behaviour modification, applied behaviour analysis and direct instruction. Major thinkers included Pavlov, Thorndike, Watson and Skinner.

Bildung

A German word meaning formation, bildung is an essential idea within Didaktik, which is based on a view of the self-responsible and socially aware person contributing to his or her own destiny and capable of knowing, feeling and acting.

Bio-psycho-social model

One of the main models used to conceptualize disability. Unlike the medical and the social model, the bio-psycho-social model is an integrated model that does not specifically focus on either the impairment within the individual or on environmental barriers, but acknowledges that biological, psychological, social and environmental factors contribute interactively to disability.

Capability approach

An evaluative approach to human well-being proposed by Amartya Sen which is concerned with the opportunities individuals have to choose and lead lives they have reason to value.

Challenging behaviour

Traditionally, this term referred to aggressive, destructive and self-injurious behaviours of people with a severe

intellectual disability. However, in many jurisdictions the use has changed and refers to any behaviour the teacher deems challenging.

Charter schools

Charter schools are publicly-funded schools in the US set up by teachers and/or parents, and permitted to operate autonomously and free from many of the regulations other public schools must follow. This flexibility is awarded as part of a 'charter' with an authorizing agency that holds the school accountable for achieving its outlined charter goals (See also *Academies*).

Choice theory

Developed by William Glasser, choice theory views all actions as behaviour which drives humans to satisfy basic needs. In this sense individuals have choices on how to behave and they are responsible for the choices they make (See *Competitive individualism*).

Code of Practice for the Identification of Special Educational Needs (England)

Also known as the SEN Code of Practice, the 2002 revised Code of Practice provides a framework for developing strong partnerships between parents, schools, local education authorities (LEAs) and health and social services and promotes a consistent approach to meeting children's special educational needs placing the rights of children at the heart of the process, allowing them to be heard and to take part in the decision-making process whenever possible (http://www.education.gov.uk/aboutdfe/statutory/ g00213170/special-educational-needs-code-of-practice).

Cognitive model

An approach (assessment or intervention) that focuses on thinking, including aspects such as memory, problem-solving, hypothesis-testing.

Common curriculum

A curriculum in which the content studied is common to all children, though the means and level by which they gain access to it may be different according to their needs.

Competitive individualism

In neo-liberalism theory, competition is seen as a natural and just way of distributing rewards to those individuals who have the abilities and attitude to succeed. Consequently, individuals are viewed as responsible for meeting their own needs, thus relieving the state of its welfare responsibilities (see *Choice theory*).

Complex learning difficulties and disabilities

Children and young people with complex learning difficulties and disabilities (CLDD) have conditions that co-exist. These conditions overlap and interlock creating a complex profile. Children and young people with CLDD have a range of difficulties and combination of layered needs – e.g., mental health, relationships, behavioural, physical, medical, sensory, communication and cognitive (http://complexld.ssatrust.org.uk/project-information.html).

Complexity theory

Closely related to chaos theory, complexity theory is applied to the study of systems which cannot be explained through fixed and deterministic parameters. In such a system, all its elements continuously interact in spontaneous and adaptive organization and reorganization giving life to progressively more complex structures.

Constructivism (constructivist model)

A theory underpinning cognitive psychology wherein learning is seen as an active process of knowledge construction or 'meaning making'. Experience combined with reflection and social interaction allows the learner to build on prior knowledge and create their own understanding (see also *Dialectical constructivism* and *Endogenous constructivism*).

Council of Exceptional Children (CEC)

The Council of Exceptional Children (CEC) is US-based association for professionals working to improve the educational success of children and youth with disabilities and/or gifts and talents (http://www.cec.sped.org).

Critical theory

A social theory oriented towards critiquing and changing society as a whole. Because the emancipatory aim is directed at society, critical theory integrates all major social science theories such as economics, sociology, history, political science, anthropology, psychology and more recently education. Central to critical theory is the notion of ideology critique of the process by which it is possible in collaboration with others to dispel the limitations of false consciousness.

Cultural capital

The various forms of knowledge, skill, education or other advantages a person possesses which gives them a higher status within a particular community.

Cultural Historical Activity Theory (CHAT)

See *Activity theory*.

Dakar Framework for Action, Education for All

The framework adopted by 164 countries whose representatives met in Dakar, Senegal, in April 2000, for the World Education Forum, reaffirms and develops further the goal of Education for All as laid out by the World Conference on Education for All (Jomtien, Thailand, 1990) and other international conferences (see also *Salamanca Statement*; http://www.unesco.org/education/efa/ed_for_all/framework.shtml).

Deficit approach

An approach that focuses on identifying a problem within the learner.

Developmental cognitive neuroscience

A growing multidisciplinary area of study focused on the relationship between neural and cognitive development. Recent developments in brain imaging techniques have prompted great interest in this field of study.

Developmental curriculum

A curriculum based on the idea that children with severe cognitive impairments are at a similar developmental stage to their younger typically-developing peers, and thus need a curriculum, which reflects this, but nevertheless should be age appropriate (see also *Functional curriculum*).

Developmental model

An assessment approach that focuses on measuring the stages that a learner progresses over the lifespan. These stages can relate to physical, cognitive or psychosocial areas.

Diagnostic and Statistical Manual of Mental Disorders (DSM classification)

The Diagnostic and Statistical Manual of Mental Disorders (DSM), published by the American Psychiatric Association, is the handbook that provides categories and criteria for the diagnosis of mental disorders and certain other disabilities.

Dialectical constructivism

Situated within constructivism, dialectical constructivism emphasizes the social and interactive nature of knowledge between the learner and his/her environment (see *Activity theory*). Within this position the role of the teacher can be at times didactic and at times providing less obvious support.

Didaktik

Refers to the Continental-European tradition of phrasing issues of teaching and learning. In its widest sense the term combines practice and most aspects of human sciences theory ('Geisteswissenschaften'), such as philosophy and history.

Disability Discrimination Act (DDA)

A UK Parliamentary Act of 1995, which made it unlawful to discriminate against people in respect of their disabilities in relation to employment, the provision of goods and services, education and transport. In 2005, the DDA was amended, placing duty on public bodies to promote disability equality. All anti-discrimination legislation was brought together under the Equalities Act of 2010 (see *Americans with Disabilities Act (ADA)* of 1990 for corresponding USA disability legislation). The Act can be retrieved from http://www.education.gov.uk/about-dfe/policiesandprocedures/ equalityanddiversity/a0064570/-equality-act-2010

Disproportionality

The over-representation of particular groups in special education and other forms of segregated provision. Disproportionality manifests itself differently in different countries. In some countries it is associated with ethnicity, in others poverty.

Early intervention

A system of coordinated services, to support (disabled) children and their families involving education, health and social services. Early intervention is designed to promote the child's growth and development during the critical early years.

Ecological model

An assessment approach that acknowledges and focuses on the environmental systems and subsystems in which the learner is located, for example the home, school and community (see *International Classification of Functioning and Disability*).

Education Act, 1981 (England and Wales)

The 1981 Education Act implemented some of the recommendations of *The Warnock Report* by abolishing the 11 categories of handicap established by the 1944 Education Act with the umbrella term of 'special educational need' (SEN). The Act introduced the notion of 'Statement of Special Educational Need' thus requiring local education authorities (LEAs) to identify and assess pupils who may require the LEA to make suitable provision for them (see also *Warnock Report*).

Education (Additional Support for Learning) Act 2004 (Scotland)

The Act established a new framework for supporting the education of all children and young people. It replaced existing Scottish legislation by introducing the new concept of 'additional support needs' which is based on a wider range of needs which may arise from the learning environment, family circumstances, disability or health, or social and emotional concerns children and young people. (See http://www.opsi.gov.uk/ legislation/scotland/acts2004/20040004.htm or http://www.scotland.gov.uk/library5/education/shasla-00.asp for a summary of the Act's main points.)

Education for All (EFA)

A global movement, supported by various UN organizations beginning with the World Conference on Education For All in Jomtien, Thailand, where participating countries pledged to provide primary education for all children and massively reduce adult illiteracy. It draws strong support from Article 26 of the Universal Declaration of Human Rights (1948), which recognizes education as a fundamental human right. The pledge towards EFA was renewed at the World Education Framework in Dakar in 2000. Global commitment towards achieving the goals of education for all is also reflected in the Millennium Development Goals (see 'Dakar Framework for Action'; http://www.unesco.org/education/efa/index.shtml).

Education Reform Act 1988 (ERA)

The 1988 Education Reform Act introduced into England, Wales and Northern Ireland created an education 'market' based on school competition in order to raise academic standards and rise to the global challenge. A major area of reform was the introduction of a National Curriculum and standard assessments at age 7, 11, 14 and 16 years (http://www.opsi.gov.uk/acts/acts1988/Ukpga_19880040_en_1.htm).

Elementary and Secondary Education Act (ESEA) US

Originally passed in 1965 as a part of the 'War on Poverty', ESEA emphasizes equal access to education and establishes high standards and accountability. The law authorizes federally-funded education programs that are administered by the states. In 2002, Congress amended ESEA and reauthorized it as the No Child Left Behind Act (NCLB) (See http://www.k12.wa.us/ESEA/default.aspx).

Endogenous constructivism

Endogenous constructivism (see *Constructivism* and *Dialectical constructivism*) considers that knowledge is developed within the student. Accordingly, knowledge cannot be transmitted precisely from the teacher to the student; therefore, the role of the teacher is to facilitate learning by providing meaningfully-structured experiences that provide active engagement in problem-solving without overtly controlling the instructional interaction.

e-portfolios

A collection of students' work that illustrates their learning and reflections on learning, compiled in a digital format.

Eugenics

A term and process created by Francis Galton to promote the procreation of the so-called fit and eliminate or halt that of the unfit. In its most extreme form it was used to justify forced sterilization of certain (disabled) populations (see *Social Darwinism*).

European Agency for Development in Special Needs Education (EADSNE)

The European Agency for Development in Special Needs Education is an independent and self-governing organization, established by member countries to act as a platform for collaboration in the field of special needs education. Currently, 31 countries are members (http://www.european-agency.org/).

Every Child Matters

Launched in 2003, the Every Child Matters (ECM) is a UK government (Wales and England only) initiative to improve integrated children's services.

Expert model

An approach where the view of the specialist and teacher are seen as authoritative and superior to that of the parent or student.

Formative assessment

Activities which provide information that can be used as feedback to modify the teaching and learning activities.

Functional behavioural assessment

An assessment that identifies the intent and function of a behaviour, and the purpose that it serves for the

individual.

Functional curriculum

A functional curriculum is a curriculum designed to teach functional life skills deemed necessary for living and working independently in the community. Common components of a functional curriculum are vocational education, community access, personal care, daily living, managing finances, travel, social/relationships, and self-determination/self-advocacy (see also *Developmental curriculum*).

Functionalism (functionalist paradigm)

Assumes that society can be studied by an objective and value-free social science that can produce true explanatory and predictive knowledge of reality objectively by reference to empirical evidence. It attributes independence of the observer from the observed and it claims that universal standards of science determine what constitutes an adequate explanation of what is observed. The functionalist paradigm seeks to provide rational explanations of social affairs emphasizing the importance of understanding order, equilibrium, and stability in society and the way in which these can be maintained.

Genetic law of development (Intramental and intermental)

Part of Vygotsky's theory of learning, genetic law of development explains the process of learning as the interaction between the individual and its socio-cultural context (intermental) and within the individual (intramental). Every function in the cultural development of the child comes on the stage twice, in two respects; in the social, later in the psychological, in relations between people as an inter-psychological category, afterwards within the child as an intrapsychological category. All higher psychological functions are internalized relationships of the social kind, and constitute the social structure of personality.

Hayekian marketplace

The term is derived from the economic theories of Friederick von Hayek. A Hayekian marketplace represents a view of society organized around a market order in which the apparatus of state is employed solely to secure the peace necessary for a market of free individuals to function. His views have had great impact on current neo-liberal theories.

Higher Education Opportunity Act 2008 (HEOA)

A recent reauthorization of the US Higher Education Act of 1965, this law established the first statutory definition for universal design for learning. This definition incorporates the three principles of UDL – representation, expression, and engagement – and emphasizes reducing barriers with appropriate supports and challenges built into instruction. Adapted from http://www.statemaster.com/encyclopedia/ Higher-Education-Act-of-1965

Human capital and social capital theories

Theories that deal differently with the notion of capital, or the existing stock of goods, which are to be used in the production of other goods or services and which have themselves been produced by previous human activities. In human capital theory, capital stands for the practical knowledge, acquired skills and learned

abilities of an individual that make him or her potentially productive and thus equip him or her to earn income in exchange for labour. Social capital theory, on the other hand, refers to the institutions, relationships, and norms that shape the quality and quantity of a society's social interactions. Social capital consists of the stock of active connections among people: the trust, mutual understanding, and shared values and behaviours that bind the members of human networks and communities and make cooperative action possible.

Humanistic model

An approach that focuses on the learner's sense of self, motivation, self-esteem, independence and relationships with others.

Improving America's Schools Act of 1994 (IASA)

A reauthorization of the Elementary and Secondary Education Act of 1965, IASA included provisions or reforms for providing extra help to disadvantaged students, including students with disabilities, and holding schools accountable for their results at the same level as other students; charter schools; safe and drug-free schools; and other programs (http://www.ed.gov/legislation/ESEA/toc.html).

Inclusion

'Inclusion' is a contested term that has acquired a variety of meanings depending on whether the focus is on educational placement of children with learning difficulties and/or disabilities or whether it means more generally social inclusion of all those children who are for other reasons excluded from school. For some it is defined either as a policy or as a process whereby students who are in special education programs are placed in general education classes (also known as 'integration'). For others, it is a process of identifying, understanding and breaking down barriers to participation and belonging often by addressing institutional factors and work generally on school development. Inclusion is about the quality of children's experience; how they are helped to learn, achieve and participate fully in the life of the school.

Inclusive pedagogy

Pedagogic approaches (through teaching and assessment) that are inclusive of all learners, and that actively reduce barriers to a learner participating in social, cultural and learning activities within the classroom and school

Index for inclusion

The 'Index for inclusion: developing learning and participation in schools' is a set of materials to support the self-review of all aspects of a school, including activities in playgrounds, staff rooms and classrooms and in the communities and environment around the school. The *Index* is designed to encourage all staff, parents/carers and children to contribute to an inclusive development plan and put it into practice.

Individual Educational Plan

An individual education plan (IEP) specifies the special education services needed by students with disabilities and/or special educational needs. It is tailored to the student's specific needs and abilities, and sets out key

individual short-term targets for the pupil, the teaching strategies to be used, and any extra support that may be needed. While the IEP has legal status in the US, in many other countries, the IEP is used as a planning tool that outlines a learner's individual educational and social needs and how these are to be met within an education context.

Individualized Family Services Plan (IFSP) US

A plan completed by a multi-agency team for any child receiving Part C early intervention services (see *Early intervention*).

Individuals with Disabilities Education Improvement Act (IDEA, PL 108-446) (2004)

The major piece of US legislation on special education, originally signed as the Education for All Handicapped Children Act in 1975, renamed in 1997, and amended in 2004, meant to ensure 'a free appropriate public education' for all children with disabilities from 3 through 21 years of age. The Act states that an appropriate education has to be designed around the individualized needs of the child, and thus it requires children to be educated in the *least restricted environment* that is with their non-disabled peers to the greatest extent possible. It also requires schools to provide each child with an *individualized education plan* (see IEP) that details the child's special educational needs, and mandates appropriate services.

'Insider' model

An approach which focuses on the unique perspective on the learner being assessed and foregrounds their individual experience of learning.

International Classification of Functioning and Disability (ICF)

A World Health Organization classification framework for health and disability intended to provide guidance for planning and decision-making. The ICF adopts a bio-psycho-social framework and focuses on functioning and environmental factors rather than merely impairment (http://www.who.int/classifications/icf/en/).

Ipsative assessment

An approach to assessment that measures the learner's present performance against their prior performance.

Least restrictive environment (LRE)

A term used in the US legislation that requires a student with a disability to be educated alongside non-disabled peers, studying the same curriculum and having access to the same extra-curricular activities to the greatest possible extent.

Market-liberalism

As a market-emphasized descendant of classical liberalism, market liberalism advocates full freedom of markets, without obstacles for monopolies and cartels, and without consumer-protective legislation. Education policies in many countries have been influenced by these ideas (see *Hayekian marketplace*).

Mastery learning

Mastery learning is an instructional strategy based on the principle that all students can learn with appropriate instruction and sufficient time to learn.

Medicalization

An understanding of phenomena from a medical perspective. It involves seeing many behaviours and difficulties as pathological and requiring treatment with drugs. An example is how a growing number of (mostly) boys are described as having attention deficit hyperactivity disorder (ADHD) and are treated with psycho-stimulants such as Ritalin.

Metacognitive/metacognition

Thinking about thinking – in education, the term is used to describe approaches that focus on learning to learn.

Millennium Development Goals (MDGs)

A set of eight goals (including universal access to primary education) agreed at the United Nations Millennium Summit in September 2000 aimed at improving the conditions of poorer countries.

Modification

A change in instructional and testing environments that removes barriers for students with disabilities, but does not change the construct being taught or assessed (see *Accommodation*).

Narrative assessment

A form of assessment that requires the learning event to be recorded in a rich and meaningful way and can include photos or videos and focuses on achievements and future learning goals.

National Technology Education Plan, 2010 (US)

A U.S. Department of Education policy document that provides a set of concrete goals that can inform state and local educational technology plans as well as inspire research, development, and innovation. Universal design for learning is referred to throughout that Plan to ensure that technology be used to optimize the diversity of learners (source: http://www.udlcenter.org/advocacy/referencestoUDL).

'A Nation at Risk'

The 1983 landmark report on the state of American education carried out by the National Commission on Excellence in Education (NCEE). Its findings were used to justify many subsequent reforms.

New managerialism

The notion that everything in the workplace should be measured and monitored against targets.

Newtonian mechanistic paradigm

Conceiving of nature as a machine, the Newtonian paradigm celebrated order and promised prediction and control. Central to this view of science was the presumption that we live in a universe governed by immutable

laws.

No Child Left Behind Act (NCLB) (US)

The 2001 Act to improve the performance of America's elementary and secondary schools by increasing the standards of accountability for states, school districts, and schools. Standardized testing is used as a measure to demonstrate that the school has made 'adequate yearly progress' (AYP) towards proficiency in reading and maths. Schools that do not show adequate yearly progress for 2 consecutive years are deemed 'in need of improvement' (http://www.ed.gov/policy/elsec/leg/esea02/index.html). (See also *Elementary and Secondary Education Act*.)

Organizational paradigm

Refers to the ways in which organizations have shared understandings or a common world view.

Participatory Action Research

Research conducted collaboratively with an overarching concern to transform social practice.

Pathognomonic

Fixed pathological (biological) characteristics of children.

Performativity

In education, the term performativity has been used to critique the notion of performance management and the commodification and marketization of education.

Phonological awareness

Awareness of the sounds that make up words.

PL (Public Law) 99-457 (USA)

The 1999 amendment to the Education of All Handicapped Children Act of 1975, established a program to encourage states to develop services for infants and toddlers with disabilities.

Positivism

Positivism is an approach to the philosophy of science, deriving from Enlightenment thinkers like Auguste le Compte (1798–1857) that states the only authentic knowledge is the scientific knowledge. Positivism views social reality as objective, and thus value-free, and amenable to scientific and empirical enquiry that can determine with accuracy the relationship between cause and effect.

Postmodernism

A term applied to a wide-ranging set of developments in critical theory, philosophy, architecture, art, literature and culture, which are generally characterized as either emerging from, in reaction to, or superseding modernism. It is concerned with questions about how knowledge is organized and questions the 'grand narratives' or 'order' of modern society.

Post-positivism

Post-positivism, like positivism, seeks to study social realities as objective and amenable to scientific methods of research. However, it also admits to the fallibility of methods and therefore it emphasizes the importance of multiple measures and observations, each of which may possess different types of error, and the need to use triangulation across these multiple sources (see also *Positivism*).

Practitioner research

Research conducted by practitioners in their place of work for the purpose of improving the quality of their practice and improving the outcomes for learners.

Pragmatism

Pragmatism, a school of philosophy originating in the US in the late 1800s, is characterized by the insistence on consequences, utility and practicality as vital components of truth. Pragmatism holds that it is only in the struggle of intelligent organisms with the surrounding environment that theories and data acquire significance.

Professional learning communities

Groups of teachers and other professionals who work collaboratively for extended periods of time to improve their practice and the learning outcomes of all the students they teach.

Psychometric model

Psychometrics is the measurement of mental and cognitive functioning, together with the tools and techniques that have been developed to carry out such measurement. It is an assessment approach that uses standardized tests to measure a learner's performance (or behaviour) against a norm (compared with the expected performance of other learners of the same age). Psychometric tests are used for a range of educational, psychological and workplace purposes.

Regular Education Initiative (REI)

A US initiative introduced in 1986 that attempted to merge special and regular education into a unitary system.

Response to intervention (RTI)

RTI is a specific approach used in the US that systematically monitors a student's response to teaching and uses such information in order to provide early, systematic assistance to prevent academic failure through early intervention, frequent measurement of progress, and increasingly intensive research-based interventions. It has many of the features of the staged intervention approaches that are used in other countries.

Salamanca Statement

An international policy that calls upon national governments, and international organizations to endorse the approach of inclusive schooling and to support the development of special needs education as an integral part of all education programmes (http://www.unesco.org/education/pdf/SALAMA_E.PDF).

Sarva Shiksha Abhiyan (India)

A Government of India-program for achieving universal primary education to children aged 6–14 years. Resulting from the 86th amendment to the Constitution of India, making education free and compulsory, the program specifically supports education for girls and children with special educational needs (http://www.unesco.org/education/pdf/SALAMA_E.PDF).

Scientificity

This is a Foucauldian concept that describes the threshold where a discourse (or way of knowing and talking about something) attains the status of scientific, and so seemingly undisputable, 'truth'. For further detail see *The Archaeology of Knowledge* (Foucault, 1972).

Section 504 of the Rehabilitation Act (USA)

Section 504 is part of the 1973 Rehabilitation Act which states that organizations or educational establishments in receipt of federal funding cannot discriminate on the basis of disability (http://www2.ed.gov/about/offices/list/ocr/504faq.html).

Self-assessment

An assessment where the learner measures or describes their own achievement, success or performance.

Self-determination

The opportunity and ability to direct the course of one's own life.

Self-regulation

The ability of learners to monitor their own learning and behaviour, and make changes accordingly.

Social constructionism

More radical than social constructivism, social constructionism is an approach to psychology that aims to account for the ways in which reality, created through language, is socially constructed.

Social constructivism

A school of thought interested in uncovering the ways in which individuals and groups participate in the creation of their perceived reality. Reality is seen as an on-going, dynamic process where individual and social influences are not separable and learning is viewed as socially and contextually specific.

Sociocultural model

An approach (assessment or intervention) that focuses on the social and cultural aspects of the learners' environment.

Social Darwinism

A social theory which holds that Darwin's theory of evolution by natural selection is not only a model for the development of biological traits in a population, but can also be applied to human social institutions. Social

Darwinism has been used to justify eugenics programs aimed at weeding 'undesirable' genes from the population.

Social interactionism

Theoretical school of thought concerned with how social interactions between people generate meaningful experiences.

Social model of disability

One of the various models used to conceptualize disability (see also the *Medicalization* and the *Bio-psycho-social* models). The social model focuses on the physical, social and attitudinal barriers that excludes disabled people from fully participating in activities of daily life. The social model has been promoted internationally by the disabled people's movement as an alternative to the medical model of disability.

Special Educational Needs and Disability Act (SENDA)

The 2001 Special Educational Needs and Disability Act (UK) amended the Disability and Discrimination Act (DDA) of 1995 by outlawing discrimination against disabled students in the provision of education, training and other related services (http://www.legislation.gov.uk/ukpga/2001/10/contents).

Standardized tests

A form of assessment that uses uniform procedures and measures outcomes against norms derived from comparisons with similar populations through a process of standardization. Standardized tests are usually based on assumptions of 'normal distribution of ability' (see *Bell curve* and *Psychometric model*).

Standards-based reform

Set of reforms aimed at the improvement of schools and basic educational outcome of children based on high standards, accountability and assessment as a measure of achievement. It is designed to raise standards in the belief that it will improve economic performance and productivity.

Structuralism

Structuralism is a theoretical paradigm emphasizing that many phenomena can only be understood in terms of their relationship to a larger, overarching system or structure. It explores the structures that underlie all the things that humans do, think, perceive, and feel and it has been influential in a number of disciplinary fields, particularly in anthropology (Levi-Strauss) and in cultural studies (Roland Barthes).

Summative assessment

A form of assessment that measures the outcomes of student learning following the completion of a learning unit, course or phase of education. Summative assessment often uses standardized tests.

Token economy

A token economy is a system used in behaviour modification based on the systematic positive reinforcement of target behaviours. The reinforcers are symbols or tokens (stars, points, etc.) that can be exchanged for other

(material, financial or social) reinforcers. Token economy is based on the principles of operant conditioning and can be situated within applied behaviour analysis (ABA).

Transformability

A pedagogical concept developed by Susan Hart and her colleagues, based on the conviction that there is always potential for change in current patterns of achievement and response, that things can always change and be changed for the better, sometimes dramatically, as a result of what teachers do in the present.

UN Convention on the Rights of the Child

An international convention, adopted by the UN General Assembly resolution in November 1989, setting out the civil, political, economic, social and cultural rights of children (http://www.unicef.org.uk/UNICEFs-Work/ Our-mission/UN-Convention/).

UN Convention on the Rights of Persons with Disabilities (UNCRPD)

An international convention, and the first human rights treaty of the 21st century adopted by the UN General Assembly resolution in December 2006, reaffirming that all persons with all types of disabilities are entitled to the same human rights and fundamental freedoms as others (http://www.un.org/disabilities/default.asp?navid=14&pid=150).

UN Standard Rules on the Equalization of Opportunity for Disabled Persons

Ratified by the UN General Assembly in 1993 the document aims to equalize opportunities for disabled people and guarantee their full participation through the exercise of equal rights and responsibilities settings (http://www.independentliving.org/standardrules/StandardRules.pdf).

Universal Design for Learning (UDL)

A set of principles for curriculum development that aims to give all students equal opportunities to learn by providing: 1. *Multiple means of representation*, to give diverse learners options for acquiring information and knowledge; 2. *Multiple means of action and expression*, to provide learners options for demonstrating what they know; and 3. *Multiple means of engagement*, to tap into learners' interests, offer appropriate challenges, and increase motivation (source: http://www.cast.org/about/index.html).

Warnock Report (UK)

This influential report, took its name from Mary Warnock who chaired a Committee of Enquiry into the education of handicapped children in 1978. It recommended an end to the 11 categories of handicap used to designate children with learning difficulties and/or disabilities since the Education Act 1944, by replacing them with the umbrella term 'special educational needs' (SEN).

World Conference on Education for All

An international meeting held in Jomtien, Thailand, in 1990, where delegates from 155 countries and representatives from 150 organizations agreed to work together to universalize primary education and reduce illiteracy (http://www.unesco.org/education/efa/ed_for_all/ background/world_conference_jomtien.shtml).

Zone of Proximal Development (ZPD)

A concept developed by Lev Vygotsky to account for the emerging though not yet fully formed psychological functions of the child and their importance for learning (http://connection.ebscohost.com/c/articles/65316642/dynamics-schoolchilds-mental-development-relation-teaching-learning).

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Note: Italic page numbers refer to figures and tables. The following abbreviations are used: RTI: response to intervention; SLD: severe learning difficulties.

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