key perspectives on dyslexia

AN ESSENTIAL TEXT FOR EDUCATORS

david armstrong and garry squires

Key Perspectives on Dyslexia

This indispensable text critically sets out the skills and knowledge required by a specialist educator for students who present with dyslexia. Key issues in the education and care of those affected by dyslexia are critically explained and explored, with the highly experienced authors showing how research can inform and enrich the ways in which an educator responds to these issues.

Chapters in this accessible text include:

- detailed case studies disclosing how dyslexia presents in different individuals and which richly illuminate the issues considered by each chapter;
- a concise examination of reading instruction in the context of typically developing students and in relation to those who present with dyslexia;
- guidance on how to identify possible dyslexia and key issues to consider in referral and assessment of those affected;
- consideration of intelligence and how this figures in relation to assessment for dyslexia;
- comprehensive evaluation of the role of behaviour in relation to dyslexia.

The British Dyslexia Association professional criteria provides an anchor throughout for this book's content, as chapters are explicitly mapped to their specific professional criteria and underpinned by this internationally recognised professional framework. *Key Perspectives on Dyslexia* is an essential text for educators and a landmark guide for educational practice and policy.

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Contents

Illustrations

Figures

Tables

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David is currently Lecturer in Special Education and Inclusion at the University of South Australia. From 2008 to 2011 he was a senior lecturer for the MA in Education (Special Educational Needs and Disability and Inclusion) at Edge Hill University, UK. In 2010 he led a major UK-based initiative on teacher workforce development. This was about extending the number of qualified specialist educators for students with dyslexia, following professional guidelines set out by the British Dyslexia Association (BDA) and as a result of recommendations by Sir Jim Rose (2009). This book had its origins in this initiative. From 1996 to 2008 he worked in the UK as a specialist teacher with a range of children and young people with disabilities and barriers to learning, including the homeless, excluded children and adults with learning disabilities. During this time he assessed and supported numerous children, young people and adults presenting with dyslexia.

   He is author of a range of publications including: Armstrong and Squires (eds) (2012) *Contemporary Issues in Special Educational Needs*, Maidenhead: Open University Press/McGraw-Hill Education; and Armstrong *et al.* (2015) *Understanding Behaviour: Research and Practice for Teachers*, Cambridge: Cambridge University Press. David is an active graduate member of the British Psychological Society (BPS).

Dr Garry Squires

Garry is currently the Director of the Doctorate in Educational Psychology programme at the University of Manchester, UK. He completed his training as an educational psychologist in 1996 and has worked in the field of dyslexia and special educational needs. He is a Fellow of the British Psychological Society and Registered Practitioner Educational Psychologist as well as being an academic and researcher. His first book (2003, with Sally McKeown) *Supporting Children with Dyslexia*, London: Continuum, focused on the way in which teachers can practically support children and it complements this book, which focuses on understanding why educators approach dyslexia in the way that they do.

Acknowledgements

Introduction

This book is, in part, a response to the question of what skills, knowledge and attributes are required by a specialist educator for children or young people who present with dyslexia. Our original brief was to address the various facets of this professional role and as set out by the British Dyslexia Association (BDA) in their criteria for courses leading to Approved Teacher Status and associate membership of the BDA (BDA, 2012). A major educational review in the UK by Sir Jim Rose (2009) was the policy driver for this framework, suggesting the need for many more specialist teachers with these specific skills and knowledge to support students presenting in schools with dyslexia.

While developing this book, however, it soon became apparent that there is increasing momentum across the English-speaking world, and in important emerging nations such as China, for a specialist educator whose practice is focused in helping children who struggle with reading, writing and other essential ingredients of effective academic study. The Australian Federal Government has, for example, signalled a recent policy shift towards recognising dyslexia as a discrete entity (Australian Government, 2013). This potentially heralds a major change in a range of areas across Australian states including, for example, the establishment of dyslexia-friendly schools, plus specialist educators who lead assessment and/or support for children with dyslexia (Australian Government, 2013). In light of such developments, we wanted our book to be international in perspective and offer support to such national policy initiatives, with their increasingly global ripples of influence.

Sharing our experiences of the reality of practice in this field with readers is also an important aim of this publication. As specialist practitioners, we seek, in what follows, to set out some of the key issues for educational practice from our perspective having, collectively, assessed/supported hundreds of students with dyslexia over the years. In light of this, we also suggest that, while helpful, professional criteria from the BDA are only a conceptual guide and that the usefulness of criteria can only be continually

judged by how relevant these are in the setting. Flexible application of professional criteria is particularly important for international readers located in, for example, the US, Canada and China: how these are applied here will, to a significant extent, be dependent on unique local systems, traditions and customs, including whether English (or another language) is the primary medium of instruction. Furthermore, it becomes apparent that there are different viewpoints and agendas at play when considering dyslexia and this pulls the educator in many different directions. Professional judgements designed to guide practice are important in deciding how best to operate in local conditions. One of our aims has been to present these tensions around key perspectives surrounding the politics and social construction of dyslexia.

In this spirit, we have been selective in the focus of chapters, choosing what we consider the key issues for a specialist teacher to understand and respond to. In our approach we also kept the original BDA criteria, to some extent, as specific anchor point: what follows, for example, addresses how psychometric tests are used and understood – a key component in the BDA criteria for Approved Teacher Status. This topic is addressed in Chapter 2 and in Chapter 5.

We suggest that this book sets itself within a wider perspective by adopting this approach and by honestly presenting some of the real-world complexity of these contested issues. This underpins the critical question that specific chapters address and which, we think, are of great relevance to a specialist educator in actual practice. These are reflected in the content of chapters:

- How should we conceive of dyslexia as an observable phenomenon (Chapter 1)?
- How should we approach teaching reading to individuals who have struggled to learn to read and who present with dyslexia (Chapter 2)?
- What principles should guide assessment for dyslexia (Chapter 3)?
- What role does behaviour play in supporting students with dyslexia (Chapter 4)?
- Should intelligence tests be used in assessment for dyslexia and if so for what purpose (Chapter 5)?
- Are the issues surrounding dyslexia any different in higher education than in school-based education (Chapter 6)?

As in other publications we have authored (Armstrong and Squires, 2012), we encourage you to have a sceptical, questioning view on the issues for research, practice and policy which we outline in what follows. It should also be noted that while our views as authors converge on many issues in this

field, we do not always absolutely agree on every issue. For example we have different, but not opposing view on the merits of IQ (Intelligence Quotient) testing, which is discussed in Chapter 5 and also Chapter 2. As researchers and scholars, we think that this is absolutely fine. In fact, we suggest that informed debate and the constant testing out of accepted ideas and practices (including our own) is profoundly useful for intellectual progress and for the positive evolution of practice. We also recommend being open to change as helpful to your own professional role as a specialist educator. We encourage you to reflect on each of the issues and to decide where you stand on each one; you will find reflective question boxes dotted throughout each chapter.

To clarify an important point, while this book is rooted in our real-world experiences as practitioners, it is not an explicit 'how to' practical/ 'teachers tips' guide to practice with individuals who appear to have dyslexia. In fact, we doubt that the latter would actually be useful for the reader in the absence of an understanding of the complex issues around dyslexia, which can only become apparent through *significant practical experience* in a setting with learners affected by this complex phenomenon. Such experience will offer insight into how to effectively support learners' progress. Our focus is not so much on the 'how to' but on the 'why we should'. Having said that, you will find more general pointers in the text about 'how' to deal with the 'why'.

The purpose of this book is to scaffold your experience and draw detailed, research-supported attention to the wider issues or more difficult questions which arise along the way. We hope that it provides, therefore, a thought-provoking, helpful and informative guide for your journey to a fuller understanding.

Psychology, education and dyslexia

One important quality of dyslexia as a space for research and scholarly enquiry is that it spans psychology (in all its sub-disciplines) as much as it does education. In fact, study of individuals who present with dyslexia has been a rich and important vein of insight into the genetic, cognitive and neuroanatomical/neuropsychological dimensions of language acquisition, language development and language use (Heim and Grande, 2012; Vellutino *et al.*, 2004). Other areas – for example, disability studies (Riddick, 2001) – and also disciplines – for example, psychiatry – have also made important contributions in understanding how dyslexia is experienced by those affected and its connections to their health and wider welfare (Levy *et al.*, 2012).

One challenge which emerges from this exciting interdisciplinary richness is that the specialist educator is overwhelmed in a sea of research calling on

language and concepts from different disciplines or sub-disciplines. In addition, as with other areas of academic enquiry, many of the research papers potentially available address a very specialist audience, using specific concepts and technical language. In many cases, research publically available about dyslexia presupposes that the reader is a postgraduate student or established scholar. Many educators who are new to this area and have not (or not recently, at least) studied beyond an undergraduate degree report that they feel overwhelmed by the sheer variety and complexity of scholarly research around dyslexia.

It might, therefore, be useful at this point to consider the descriptions below of the range of disciplines and sub-disciplines and how they approach the category of dyslexia, explaining some of the many ways in which researchers have examined the subject from different perspectives over the last 30 years. The name of the discipline is given in bold; some examples of the type/typical focus of studies associated with that discipline in reference to dyslexia are given.

Genetic/biology: epidemiological (whole population)-based studies; familial incidence (do family members of those affected also show signs of dyslexia?); genetic markers for dyslexia in affected individuals; dyslexia and gender.

Neuropsychology: role of specific brain areas in dyslexia/presentation of dyslexia (neuroanatomy); brain function/brain structure and reading; role of auditory or of visual processing systems in dyslexia; eye-tracking; EEG and fMRI studies brain function in those with dyslexia; acquired disabilities affecting reading (such as injuries due to a road traffic accident [RTA] or head trauma of another cause).

Psychology: cognition as an information processing model with cognitive factors affecting dyslexia; co-morbidity or co-occurrence (e.g. attention deficit hyperactivity disorder and dyslexia); use of psychometric testing; relationships between working memory and dyslexia; dyslexia and phonological processing (how sounds are processed); dyslexia and mental health; relationships between dyslexia and other language disorders, such as specific language impairment (SLI); dyslexia and behavioural factors.

Educational psychology: aspects of practice by educational or school psychologists in directly supporting those affected; educational policy; applied psychological theory relating to dyslexia; evaluation of interventions with those affected; use of psychometric testing in a school or educational context for dyslexia; educator practice (from a psychological perspective) and multidisciplinary (educator–psychologist) practice to support those affected; dyslexia and behavioural factors/issues; the role for educational psychologists (EPs) in supporting educators in their professional learning and practice around dyslexia.

Education: educational practice, educational evaluation or policy pertaining to dyslexia: inclusion; behaviour and dyslexia; educational policy; professional roles in supporting children with dyslexia; literacy and dyslexia; evaluation of interventions; teaching reading/reading instruction and dyslexia; spelling/writing and dyslexia; mathematics and dyslexia (factors in teaching mathematics [or math] to students with dyslexia); dyslexia and behaviour.

Sociology of education: dyslexia and disability (disability studies); social and educational inclusion and dyslexia; dyslexia and identity; dyslexia and relationships (particularly with a student's educators and with their family); dyslexia and criminality/deviance (including studies of the possible prevalence of dyslexia in the prison population); dyslexia and gender.

As might be gathered, there is considerable overlap and replication where issues affecting learners are examined from different disciplinary perspectives. One aim of this book is to help the specialist educator make sense of these many different perspectives, therefore avoiding the overload sometimes provoked by even a brief survey of this complex area. In presenting these closely together, it becomes apparent that the disciplines do not always fit well together. Theories which seek to explain the underlying cause and presentation or 'symptoms' of dyslexia are the focus for concise discussion in Chapter 1, 'What is dyslexia?' Yet these are presented alongside some of the ways in which society creates the disability of dyslexia.

We also, however, present selected findings from research in the context of the key practical issues we think you are likely to experience in your setting. Supporting students who present with dyslexia in terms of their reading (Chapter 2) and also in terms of their behaviour (Chapter 4) is often at the forefront of the mind of specialist teachers in daily practice. 'Reading' and 'behaviour' are, however, controversial and often politically charged areas for educational practice and education policy (see, respectively, Chapter 2 and Chapter 4 for further discussion); they provoke considerable debate among educational professionals and policy-makers. In concert with the sheer diversity of research about dyslexia, such confused and confusing debates can present a lack of clarity for educators about their choices in and around practice.

Stanovich (2000), who has historically been an important researcher in the field of how typically developing children learn to read and also in terms of understanding dyslexia, suggests that opposition between 'whole language advocates' and 'proponents of decoding skills' has been an unhelpful 'confusing mix of science and politics' for educators (p. 361). He adds: 'fortunately, the best teachers have often been wise enough to incorporate the most effective practices from the two different approaches into their instructional programmes' (p. 361). We would agree with this

observation: 'what works' for an individual affected by dyslexia in terms of progressing their reading and what works for the educator teaching them will often differ from case to case and should not, therefore, be generalised into a 'one size fits all' framework of any kind.

As we highlight in Chapter 2, practitioners should feel entirely confident to select, use and evaluate/test a range of strategies to support a student's reading. This recommendation also applies to developing a student's writing (consisting of the sub-topics of a learner's handwriting, their written vocabulary, their use of grammar and level of compositional skills). A high-quality, carefully considered and carefully supported diagnostic assessment of a student is the best vehicle for designing focused, responsive and informed support for a student with dyslexia and in guiding what mix of strategies might be most effective in each case. Issues to consider in gathering the data for a diagnostic assessment; in interpreting what this data means; and in communicating its implication to those directly affected, their family and other professionals are discussed in Chapter 3.

Indeed, using this (applied research case study) approach is arguably far more 'scientific' than inflexibly adopting a particular strategy because it is the latest recommendation by local or national policy. As we point out, there are fundamental unresolved scientific questions about how 'typically developing' children learn to read and a lack of clarity over to what extent or even *if* this complex process applies to individuals with dyslexia. We therefore urge a sceptical response towards any claim (by policy-makers, commercial organisations or the media) that there is an established evidence-base for particular practices (such as synthetic phonics) or that validates specific commercial products.

One progressive component of the BDA professional criteria is that they acknowledge the wider impact that difficulty with study and learning often has on the behaviour and welfare of those affected. They specify that a specialist educator should 'Demonstrate an understanding of the social, emotional and behavioural difficulties pupils with specific learning difficulties may encounter' (BDA, 2012, p. 3). It should be noted that this emphasis upon the personal, psychological difficulties often faced by children and young people in their education and who present with dyslexia has a strong basis in research (Armstrong and Humphrey, 2009; Riddick, 2010). We would also suggest, in light of our own experience, that these difficulties are an important factor that specialist educators should take into account in everyday practice: our goal is to mitigate their severity and ensure that, so far as is possible, they minimally affect the academic progress of individuals.

These concerns around behaviour in the context of dyslexia are the focus for Chapter 4. On a pragmatic level, the negative emotions aroused

by difficult or even traumatic experiences for those affected by dyslexia can, in some cases, have a negative, overshadowing effect on all of their time in a setting, with spin offs in withdrawn (disengaged) and/or externalising (challenging, disruptive) behaviours. For educators, the immediate priority in such cases is to re-engage the student as a priority and seek support from their immediate colleagues, external agencies and/or the student's family.

Chapter 4 discusses these challenges in detail. It also explores some of the wider factors around any consideration of behaviour in the context of supporting students who present with dyslexia but who might also have other co-existing conditions such as social emotional and behavioural difficulties (SEBD) – offering insight into how they can complicate efforts to support those affected. Functional behaviour analysis (FBA) is outlined and suggested as one useful framework for a specialist educator to call upon in this context, particularly if used with the support of an educational psychologist, school psychologist or other allied professional with a background in the use of FBA (Cooper, 2011).

Three case studies

As you read this book, we want you to be thinking critically about the issues that are presented and to think about the implications for dyslexic learners. What follows are three case studies of children and young people who present, in quite different ways, with a learning profile indicative of dyslexia. These are drawn from our experience of real individuals and are an amalgam of real children or young people, significantly changed to prevent any recognition of an individual. We thought it worthwhile to present cases with some level of authenticity and to provoke the readers' critical consideration in light of their own experiences of children who are described as dyslexic.

Wherever possible we have attempted to adjust each case to be general enough to fit in any locality across the English-speaking world, but specific enough to convey its fine grain. Those readers interested in the broad perspectives of research in this area might consider how case study methodology has a strong tradition in research conducted in educational settings with children who have disability (Cohen *et al.*, 2007; Yin, 2014)

Each case presented also underpins one or more issues which this book considers – such as, the role of behaviour in considering practice with children who present with dyslexia addressed by Chapter 4; or how to teach reading to those affected, which is the main focus of Chapter 2. One of the advantages of case studies is that they allow a deeper appreciation of wider issues for practice without losing the often unique way in which