Dyslexia in UK Higher Education and Employment
An Introduction and Overview
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The number of dyslexic students entering higher education has increased over the last few years as a result of government efforts to widen access and participation. These efforts include the introduction of the Special Educational Needs and Disability Act, which makes it unlawful for higher education institutions to:

discriminate against a disabled person\(^1\) [i.e. to treat him less favourably because of his disability] in the arrangements it makes for determining admissions to the institution; in the terms on which it offers to admit him to the institution; or by refusing or deliberately omitting to accept an application for his admission to the institution. (Department for Education and Skills 2001, Section 28R (1))

Between the years 2000 and 2004, spanning the introduction of this Act, figures from the Higher Education Statistics Agency show that the number of dyslexic students entering university increased by almost 100% (Higher Education Statistics Agency 2006) although the actual numbers are still fairly low at around 3.2% of all UK students (Higher Education Statistics Agency 2010). It is, of course, possible that this number underestimates the true figure, as around 43% of dyslexic students are identified as being dyslexic only after they have started at university (National Working Party on Dyslexia in Higher Education 1999).

However, gaining a place at university is only one step of the dyslexic adult’s journey. As Osborne (2003, p. 18) points out:

Improving access is one thing, but ensuring progression both within and beyond higher education is another.

and evidence regarding the progression of dyslexic university students is mixed. While some researchers have suggested that dyslexic students are more likely than non-dyslexic students to withdraw from their studies during the first year (Richardson and Wydell 2003; Stampoltzis and Polychronopoulou 2008), others have shown that dyslexic students are just as likely to pass their first- and second-year exams and to progress through their studies as are non-dyslexic students of the same sex and age (McKendree and Snowling 2011).

\(^1\) See later in this chapter for a section on dyslexia and disability legislation.
For those dyslexic students who do complete their degree courses, their chances of graduating with either a first class degree or an upper second class degree are lower than those of their non-dyslexic peers. Figures of 41% versus 52% (National Working Party on Dyslexia in Higher Education 1999) and 44% versus 54% (Richardson and Wydell 2003) have been reported. These figures highlight the need for good, evidence-based dyslexia support to be provided to dyslexic students in higher education to give them the best possible chance of achieving completion rates and final degree results that are equivalent to those of non-dyslexic students.

Of course, the difficulties of dyslexic adults do not stop once they leave university, and the need for appropriate support continues into the workplace unless the individual chooses to enter a career that minimizes the need for reading and writing. For example, dyslexic adults who become teachers will face difficulties every day relating to their impaired literacy skills while those who become professional athletes are likely to face no such difficulties. This consideration may guide the career choices of many dyslexic readers. As Maughan and colleagues noted in their study of poor readers from adolescence to midlife:

At the time they entered the labour market, childhood poor readers were . . . much more likely to have obtained jobs with limited literacy demands. (Maughan, Messer, Collishaw et al. 2009, p. 895)

An interesting study of the occupational choices of 365 adults with and without dyslexia was undertaken by Taylor and Walter (2003). In line with Maughan et al. (2009), they found that adults with dyslexia were less likely than those without dyslexia to work in science/computing, management or business/finance (with their heavy reliance on the written word), and more likely to enter ‘people-oriented professions’ such as sales or nursing.

The potentially large numbers of dyslexic nurses (although the actual figure is not known – Wright 2000), and the fact that around 80% of clinicians in the UK are nurses (Jasper 2002) has led to a large body of research being undertaken with this occupational group. Much of this research has focused on the difficulties that dyslexia might cause in terms of patient safety. Studies with dyslexic nurses, for example, have highlighted concerns regarding the ‘potential to confuse medical terminology or drug names’ (Wright 2000, p. 39) and the ‘presumed or potential risk to patient health and safety posed by dyslexia-induced performance error (e.g. problems with drug administration)’ (Millward et al. 2005, p. 341).

Such concerns lead some nurses not to disclose their dyslexia to their employer or colleagues for fear of discrimination and ridicule (Morris and Turnbull 2006). However, evidence suggests that such fears are largely ill-founded, and that, where appropriate support is provided, dyslexia poses no risk in terms of effective nursing practice (Wright 2000; Shepherd 2002; Millward et al. 2005), and no barrier to career progression (Morris and Turnbull 2007).

Once again, however, the provision of appropriate support depends on individuals disclosing their dyslexia to their employer and colleagues, and this disclosure being met with understanding of the nature of dyslexia and the strengths and difficulties that it can bring.

What is Dyslexia?

Developmental dyslexia is a specific learning difficulty that affects between 5 and 15% of speakers of English (Pennington 1991; Snowling 2008). It is characterized by problems with reading and spelling (the word ‘dyslexia’ comes from the Greek words dys – ‘impaired’, and lexis – ‘word’). However, it may be more accurately described as a collection of reading, spelling, naming, spoken language and memory difficulties. Combined, these difficulties render dyslexic readers relatively less able than non-dyslexic readers to do some of, or all, the following:
- read and spell words quickly and accurately
- read and write passages of text without missing out words, losing their place, and becoming distracted
- distinguish between similar-looking words such as with and which, lots and lost when reading and spelling
- comprehend written material without considerable effort
- hold verbal information, such as telephone numbers, people’s names or directions, in short-term memory
- learn sequences of things such as the months of the year, poetry, or times tables
- recognize common sounds in groups of spoken words, such as 'sun, sea and sand'
- pronounce long words, such as parallelogram, quickly and accurately
- display a similar level of ability in their spoken and written work.

In around 30 to 50% of cases, dyslexia occurs with at least one other developmental disorder (Kaplan et al. 1998; McArthur et al. 2000; Kadesjö and Gillberg 2001). These disorders include problems such as poor handwriting, difficulty remembering numbers, and problems with balance and coordination, specifically:

- impaired motor skills, balance and coordination (dyspraxia/developmental coordination disorder);
- poor hand–eye coordination, slow and messy handwriting, difficulty copying written text, and poor fine motor control of the hands (dysgraphia, although these symptoms might also reflect the fine motor difficulties of dyspraxia);
- poor concentration, inattention, impulsivity and hyperactivity (attention deficit/hyperactivity disorder);
- difficulty with counting, performing mental arithmetic, understanding and applying mathematical concepts (dyscalculia);
- difficulty with processing visual information – individuals may experience visual stress (or glare) from reading black text against a white background, symptoms of fatigue when doing close work, and they may see printed letters that appear to move or float above the page (scotopic sensitivity syndrome or Meares–Irlen syndrome).

However, individuals differ in the severity of their reading difficulties just as non-dyslexic readers differ in their reading abilities. The specific difficulties of dyslexia may depend on factors such as family background (whether other close relatives also have dyslexia), educational experience (the level of support and specialist teaching provided), and the individual’s use of compensatory strategies.

**Compensatory Strategies**

Dyslexic readers can often apply skills, tactics or technical aids to help them cope with, or even hide, their reading difficulties (Lefly and Pennington 1991; Kirby et al. 2008; Logan 2009). Strategies might include avoiding situations in which reading or writing may be required; delegating to others tasks that involve reading and writing; using the spell-check and grammar-check facilities on a computer; using mind maps to organize ideas; having other people read through written work to check for errors; and recording lectures or meetings to avoid the need to take contemporaneous written notes.

However, even with the assistance of compensatory strategies, dyslexic readers often need to invest greater time and effort in order to complete a piece of work (that still may not reflect their actual ability). Furthermore, even the most seemingly-effective compensatory strategies
are prone to break down under pressure, for example when the individual is required to read rapid subtitles on television, or to write quickly and accurately in front of other people (van der Leij, de Jong and Rijswijk-Prins 2001; Bartlett, Moody and Kindersley 2010).

Signs of Dyslexia in Adulthood

While dyslexia is often first identified in childhood, it is a lifelong difficulty. Some of the characteristic signs of the adult dyslexic reader are:

- poor spelling
- slow reading
- poor time management – often arriving late for appointments or missing them completely
- difficulty taking down messages, especially if these involve strings of numbers, such as telephone numbers
- difficulty with tasks that require sequencing, such as filing or looking up information in an alphabetized list or directory
- difficulty concentrating in a noisy environment.

Individuals may also show low self-esteem, lack of confidence, anxiety and frustration, particularly if their reading difficulties have not been recognized or supported properly.

A Legal View of Dyslexia

Some people have challenged the view of dyslexia as a disability, preferring instead to describe it as a learning difference (see, for example, Griffin and Pollak 2009; Hendrickx 2010). The UK Equality Act (2010), however, is quite unequivocal: dyslexia is a disability representing a:

- mental impairment which has a substantial and long-term adverse effect on a person’s ability to carry out normal day-to-day activities. (Office for Disability Issues, 2010, Chapter 1, Section 6)

In this definition, ‘mental impairment’ specifically includes learning disabilities such as dyslexia and dyspraxia. The difficulties of dyslexia are more than a minor inconvenience – they either increase the time that might normally be required to perform an activity, or they prevent the performance of this activity altogether – and they last for at least 12 months. Finally, the activities affected include everyday aspects of life that depend on spoken and written language, memory and the ability to concentrate, learn or understand.

According to this legal definition, people with dyslexia cannot be discriminated against when they apply for or undertake educational courses or employment. This means that they cannot be denied a place on a course or an employment opportunity because of their dyslexia; neither can they be dismissed from a job or denied promotion because of their reading and writing difficulties. On the contrary, they are legally entitled to receive tailored support in the form of ‘reasonable adjustments’; these adjustments will remove barriers that might otherwise prevent these individuals from having equal training and employment opportunities with their non-dyslexic peers.

‘Reasonable adjustments’ in higher education

The UK’s Code of Practice for the Assurance of Academic Quality and Standards in Higher Education requires that:
The delivery of programmes should take into account the needs of disabled people or, where appropriate, be adapted to accommodate their individual requirements . . . (The Quality Assurance Agency for Higher Education, 1999, Section 3, Precept 10)

The Code also states that:

Assessment and examination policies, practices and procedures should provide disabled students with the same opportunity as their peers to demonstrate the achievement of learning outcomes . . . (Section 3, Precept 13)

The ‘individual requirements’ of dyslexic students can be met, and these students can be helped to demonstrate ‘the achievement of learning outcomes’, through the implementation of simple ‘reasonable adjustments’. These might include: encouraging dyslexic students to sit near the front of the lecture theatre so that they may see and hear as clearly as possible; providing comprehensive handouts and lecture notes (preferably before the lecture) rather than requiring students to make their own notes during lectures; encouraging students to ask questions whenever anything is unclear; developing methods of assessment that require minimum amounts of writing; and asking dyslexic students if there is anything else that might be done to assist them with their studies. These adjustments, and evidence for their efficacy, are discussed in much more detail in Section One of this book.

‘Reasonable adjustments’ in the workplace

Many of the strategies suitable for helping dyslexic students in higher education can also be adopted in the workplace. For example, dyslexia-friendly employers might (depending on the nature of the job): encourage dyslexic employees to intersperse periods of computer work with other activities; provide dyslexic employees who suffer from visual glare with an anti-glare screen filter whenever they need to use a computer; provide a quiet working space for their dyslexic employees, where this is possible, to minimize distractions; and encourage dyslexic employees to ask questions whenever they are unsure of something.

These strategies, and evidence of the beneficial effects that they can have on dyslexic adults in the workplace, are discussed in more detail in Section Two.

An Overview of This Book

The aim of this book is to provide an overview of current research and practice in supporting the needs of dyslexic adults in education and employment. It combines evidence and data from academic research with practical advice drawn from years of working with, and supporting, dyslexic adults. The book is divided into two sections, focusing on supporting dyslexic students in higher education and supporting dyslexic adults in the workplace. These sections are outlined below.

Section One: Supporting dyslexic students in higher education

This first section explores issues relating to dyslexic students in higher education. It considers how the policy, provision and practice of educational institutions are responding to the specific needs of these students. The main focus is on recognizing and identifying dyslexia in adulthood and providing practical support for dyslexic individuals, once identified, to help them to develop the skills necessary for higher-level study. Tailored support might be provided through the use of
computer-based elearning materials, multimedia teaching materials, helping students to develop effective metacognitive strategies (i.e. teaching them how to learn) and considering alternative forms of assessment that are not so focused on the traditional written exam. The section ends by considering ways in which dyslexic adults might best be prepared to make the move from education into the workplace. Many examples of good practice have been provided by the chapter authors in this section. All these examples have been developed as a result of years of experience of providing support to dyslexic students in colleges and universities and, as the authors report, there is evidence for their efficacy in enhancing the teaching and learning of dyslexic students in these institutions (see also McLoughlin, Leather and Stringer 2002).

In Chapter 2, Ruth Gwernan-Jones considers the socio-emotional aspects of dyslexia. She looks at different views that people – dyslexic individuals, their parents, friends and teachers – hold about dyslexia, and how these views can impact upon the educational experiences and outcomes of dyslexic students. Many of the dyslexic students mentioned in this chapter describe a school background in which they were identified as being lazy and where they were frequently humiliated in front of their peers for their difficulties with reading and spelling. Yet it is how individuals perceive themselves (perceptions that are often shaped by positive attitudes of teachers, parents and employers) that determines how they make sense of their dyslexia; these perceptions either hold dyslexic adults back or spur them on to achieve their goals.

Vikki Anderson and Sue Onens (Chapter 3) explore how well prepared students with Specific Learning Difficulties (SpLDs) are for making the transition from school or college through to the end of the first term of university. Initial interviews with these students revealed that most felt ‘fairly well prepared’, mostly by friends and family members, for study at university. In later interviews, however, most participants reported feeling shocked by the volume of work and the amount of independent learning that was expected of them at university and, with hindsight, several changed their earlier responses to indicate that they would have benefited from more preparation to help them through this period of transition.

In Chapter 4, Sarah Nichols discusses the merits and problems associated with measures that are commonly used to screen for dyslexia and other SpLDs in adults in higher education. She presents the results of an evaluation of a screening package that effectively and reliably identifies students who should be referred for a full dyslexia assessment. The sooner students are screened, and if necessary assessed, the sooner support can be provided to ease their progress into and through higher education.

Vivien Fraser’s chapter (Chapter 5) picks up on some of these issues by exploring the complex nature of dyslexia support at university, and the tools and strategies available for dyslexia support tutors to use. Specific examples are provided in the form of case studies of individual students who brought different strengths and weaknesses with them into higher education, and who were therefore able to engage with the process of learning support to a greater or lesser degree.

In Chapter 6, Geraldine Price considers ways in which dyslexic students can be taught to take control of their own learning through metacognitive strategy instruction. Students can be shown how to identify through experience which skills and strategies to use in any learning environment and how to evaluate the relative success of these strategies. In this way, dyslexic students may develop effective learning skills alongside improved self-confidence and self-regulation, which enable them to become independent learners.

In Chapter 7, David Pollak continues the theme of supporting dyslexic learners in higher education. He identifies the particular difficulties faced by dyslexic students and discusses assistive technology that can be used to alleviate these difficulties. Strategies that university tutors can use when planning their lectures, seminars, handouts and assignments are suggested, as are strategies that students can use to help them with reading, writing, note-taking, and writing examination answers.
Dyslexia support at the Royal College of Art is described by Qona Rankin in Chapter 8. This support includes the production of Mp3 recordings of tutorials; video recordings of practical demonstrations; the use of colour and space to help students to differentiate between different technical processes; the use of pictorial handouts; and small-group work in which all students have the opportunity to practise techniques they have just seen demonstrated. Qona also describes how the dyslexic art students themselves are identifying problems that they are experiencing in the classroom and the workplace, and using their unique abilities to solve these problems in creative ways.

The creative use of technology, including electronic learning and virtual learning environments, is described in Chapter 9 by E.A. Draffan. She explains how the presentation of materials online can be customized by the user to change background colour, font size and character spacing, and this material can be accompanied by podcasts, audio presentations, videos and links to further material. The importance of text-to-speech is also discussed, as are text magnification, the use of headings and subheadings, and clear contents tables or menus to enable individuals to navigate easily around large interactive files.

Chapter 10, by Rob Fidler and John Everatt, describes a study of the reading comprehension skills of dyslexic university students. Five interventions designed to improve comprehension were put in place and ability was assessed before and after the intervention. The most successful intervention strategies were those that involved the use of mind-mapping techniques and the writing of summary notes. These metacognitive strategies, which required the students to engage with the text and to think about its content, enabled the dyslexic students to spend longer reading and thinking about the material, and this improved their comprehension.

The final two chapters of Section One explore ways in which dyslexic adults at university can be supported and prepared for the world of work. In Chapter 11, Pauline Sumner outlines some of the different strategies used by specialist dyslexia support tutors during tutorials to boost students’ confidence and self-esteem. She also discusses issues pertinent to students who are about to embark on a work placement. These include disclosure about one’s dyslexia, workplace strategies, and good work placement practice; all of these can be discussed and rehearsed in the supportive environment of the one-to-one tutorial.

Finally, Fiona White, Richard Mendez and Rosanne Rieley from the University of Leicester consider how well dyslexic undergraduates make the transition into the workplace. Focus groups held with dyslexic students at different stages of their university education revealed that most – particularly those in their final year – were anxious about obtaining employment. Key to this anxiety was uncertainty regarding potential employers’ perceptions of their dyslexia and about how their dyslexia might prevent them from meeting the demands of the workplace. Following on from this study, the University set up an ‘Access to Employability’ programme designed to support students with dyslexia and other disabilities to make the transition from higher education into work. This programme is described in this chapter.

Section Two: Supporting dyslexic adults in the workplace

The second section of this book considers ways in which the difficulties of dyslexia might affect the employment performance of dyslexic adults and how these might be overcome. Chapters in this section provide tips and strategies regarding how best to disclose dyslexia to employers and colleagues; how to increase self-confidence in the workplace; how to obtain reasonable adjustments; and a look at legal aspects of dyslexia support, including a summary of disability legislation as it applies to people with special educational needs. This section ends by highlighting the particular skills and strengths that dyslexic adults can bring to the workplace. Chapters in this section have been written by researchers and practitioners who...
have drawn on a wealth of experience in supporting and advising dyslexic adults in the workplace, and numerous examples of evidence-based practice are provided. Many chapters include case studies designed to capture the immediate experiences, good and bad, of dyslexic adults at work.

This section opens with a chapter by Alan Martin and David McLoughlin, who discuss the issue of disclosure in the workplace: when and how to disclose a learning difficulty to employers and colleagues, and why some people choose not to disclose at all. Results of a study tracking dyslexic alumni of the University of Buckingham revealed that fewer than 17% had disclosed details of their learning difficulties to their employers. The most common reasons given for non-disclosure were that individuals felt that their dyslexia was not relevant to their work and that they feared they would be discriminated against in the workplace. The chapter ends with advice for dyslexic people who do choose to disclose, focusing on when to say something, whom to tell and what to say.

Chapter 14, written by Paul Gerber and Lynda Price, continues this theme of self-disclosure by considering the contexts and circumstances that might persuade an individual to disclose his or her dyslexia to their employers and colleagues, and the reactions of others following disclosure. Paul and Lynda's own research into disclosure is discussed in terms of risk management, i.e. the 'acceptable loss' and 'potential gain' that self-disclosure might bring for an individual.

In Chapter 15, Sylvia Moody presents a series of case studies to illustrate different situations in the workplace in which (i) an employee is aware of his or her difficulties but is not aware that these are the result of dyslexia; (ii) an employee is aware that he or she has dyslexia but fears that disclosing this to the employer will lead to discrimination; and (iii) an employee has disclosed his or her dyslexia to an employer but this disclosure has been met with a lack of sympathy, sometimes leading to hostility and bullying. Suggestions for bringing about a successful outcome in each of these cases are presented.

In order for dyslexic people to achieve success in the workplace they need self-understanding; to be working in a job in which they can use their strengths; to be able to use technological and creative solutions; and the support and understanding of their employer and colleagues. These issues are discussed in Chapter 16 by Carol Leather and Bernadette Kirwan. They consider ways of increasing awareness and understanding of dyslexia, of helping individuals to explore different ways of working to maximize their efficiency, and of developing skills of self-advocacy to increase dyslexic adults' sense of control over their working lives and, ultimately, of their self-confidence.

Chapter 17, by Margaret Malpas, examines the skills and knowledge that specialist tutors need to coach and support dyslexic adults at work to help them to perform their jobs effectively. These skills include counselling skills; motivation skills; tact and diplomacy; knowledge of government funding available to pay for the introduction of reasonable adjustments; and knowledge of grievance and disciplinary procedures, as well as an understanding of equality legislation.

A detailed look at dyslexia and disability discrimination is provided by John Mackenzie in Chapter 18. He summarizes UK legislation as it applies to people with special educational needs throughout their education and in the workplace. John also describes the process whereby individuals bring claims against schools, universities and employers where they feel that they have been discriminated against because of their dyslexia. Examples of discrimination may include dyslexic employees being victimized or harassed, having appropriate support or reasonable adjustments withheld, being denied promotion or even being dismissed from their jobs.

In Chapter 19, Robert Hillier describes the process through which he designed and developed the Sylexiad typeface, specifically intended to help dyslexic adults to distinguish more easily between letters and words when reading printed text. As part of the development
process, Sylexiad was tested against other ‘dyslexia-friendly’ fonts for its readability and legibility. Results showed that most dyslexic readers preferred the long ascenders and descenders, light letter weights and generous inter-word spacing of the Sylexiad font to the other fonts tested. Sylexiad has since been adopted by various institutions across the UK, and examples of its use are provided in this chapter.

Finally, in Chapter 20, Morag Kiziewicz presents evidence of some of the strengths that dyslexic adults can bring to the workplace. These strengths include creativity, persistence, adaptability and an ability to ‘think outside the box’. As long as dyslexic individuals are respected and valued for these strengths, they should have every opportunity to take their place in the workforce and be an asset to society.

The central aim of this book is to provide information and advice on supporting adults with dyslexia. Of course, much of what can be done applies across the age range and so there are areas of overlap across the two sections of this book. The UK Equality Act 2010, for example, is mentioned in both sections as it influences the way that dyslexic individuals are treated across the lifespan. Similarly, many examples of good practice apply in the university just as much as in the workplace.

A strength of this book is the wealth of practical experience possessed by its contributors. It includes chapters written by specialist dyslexia tutors and learning support tutors in colleges and universities, a speech and language therapist, independent dyslexia consultants and coaches, a clinical psychologist, a lawyer, a careers advisor, a disability advisor, and academic psychologists, educationalists and designers. The years of specialist experience encapsulated in the chapters of this book should help to increase awareness and understanding of the challenges faced by dyslexic adults, whether these are students, clients, employees or colleagues, and of the role that we can all play in supporting and enabling them to meet these challenges in higher education and the workplace.

References


