Contents

Chapter 1

Introduction

There are two things I would like to introduce before we continue: the first is myself, because a lot of this book is based on my personal experience, and the second is this book. First things first: I am currently a student studying a Secondary Physical Education teaching degree (QTS) at the

University of Chichester. At age 8 I was diagnosed with dyslexia and dyspraxia. Dyslexia is generally associated with having difficulty learning to read and decoding language although it is far from limited to this. Dyspraxia, on the other hand, is a motor learning difficulty that affects coordination and movements. The two conditions are associated and can often develop together but are not the same.

I progressed through the education system with varied levels of success and support. There were many times when I felt angry and frustrated with my situation and there have been other times when, thanks to the support I received, I managed to achieve things I didn't think would be possible at one stage. Ultimately, for better or for worse, and thanks to the education system and every teacher I have ever had (both good and bad), that is why I have written this book – in the hope that my experience might benefit others. My aim is to try to optimise the educational opportunities and understanding that people with dyslexia receive during their schooling.

This book will grow with age. I start by looking at some of the early signs of dyslexia before progressing through the UK education system and finally on into higher education and what it is like to be on the other side of the classroom. Along the way, drawing on my own experience, I assess what the research tells us and what support is available. I also include some of my own personal hints and tips that you might find useful. Although this book is primarily aimed at teachers, hopefully it will support students and parents alike.

The important thing to bear in mind when approaching dyslexia is that individuals don't either have or not have dyslexia; rather it works on a continuum, and not a simple lateral one at that. People have different severities in different areas and must always be treated as individuals and never tarred with the brush of 'having a condition'. Teaching is incredibly difficult, and if you find it easy then you are a cheat, a liar or in the words of Sir John Jones 'a weaver of magic'![1] It is so important not to make assumptions and jump to conclusions about your students, and yet often we have a limited amount of information to work with and the 'reality' of dealing with what lies in front of us kicks in. To help you take reality and kick it out of the classroom where it belongs, at the end of each chapter I include a 'teacher tips' section which will give you some practical solutions to draw on. My aim is to help you with your 'ACBs', but I don't mean teaching you to read and write. The 'ACBs' I am referring to are these:

A – Assessment

Looking at assessment on a number of levels: assessing for dyslexia, Assessment for Learning in the classroom and how to deal with formal and informal assessments.

C – Classroom practice

Practical and useful strategies to pull out and give a try – and, with a bit of luck, adapt and improve on! This section is at the heart of good quality teaching and learning and will hopefully give you some ideas to help you reflect on your practice, experiment with ideas, take

a few risks and above all have fun. These strategies will benefit all young people, not just those with dyslexia.

B – Behaviour

Dyslexia can manifest itself in challenging behaviour, often boredom and the inability to engage with school life, which can then lead to bad behaviour. This section aims to help you spot problems before they get out of hand.

Dyslexia is always there but hopefully these tips will give you a better idea of how to deal with scenarios should they arise. Even while writing this and using a spell-checker, I still needed other people to read and check my work a number of times. Here's an example of some of my most common mistakes:

- *Where* and *were* – both good words when used in the right place but with different meanings.
- *Definitely* – when spell-checked this came out as *defiantly*, giving a totally different meaning.
- *Anachronisms* and *acronyms* are two very different things.
- *Is it* instead of *it is* – two little words, one is a question and the other a statement. Spell-checkers don't identify errors like these.
- *Their/they're*.
- *Your/you're*.

There were a whole host more but I lose track after a while. My favourite mistake however was writing *defecate* rather

than *deficit*! You have to be able to laugh at yourself, sometimes dyslexia is funny!

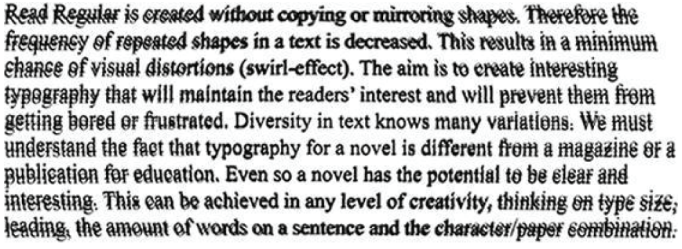
Chapter 2

Dys-lex-ia

Writing about dyslexia presents a bit of a challenge. As someone with dyslexia I have the personal experience, but how can I ensure that this comes across in the written word? Conversely, if I wasn't dyslexic, how could I back up what I was writing with experience? How indeed can you help

someone without dyslexia to understand what it is like to have the condition, especially when it is so variable?

I was recently asked what it is like for a dyslexic to read. For me, words often appear as broken up rather than fluid, which can lead to a text losing its meaning. Here is how the British Dyslexia Association represents visual stress[2] (please note the distortion is deliberate – there is nothing wrong with the printing!):



Semoteims wehn you are reiadng and the txet deos not folw or you hvae to psaue to raed a wrod it can bomece dfifiluct not jsut to raed but to udenstrnad waht you are redaing and you may lsoe the imacpt of putnuiatcon and hvae to read thnigs sevreal tmies oevr.

In adDition You Sometimes *see* things Look EXtremely dIfferent As *shown*

This is just to try and give you an idea of what it can be like rather than an accurate replication. It is also a good demonstration of how the mind processes words.

These are not literal examples but an attempt to give you some idea of what it might be like to have difficulties with reading. What is perhaps harder to put into a usable example is the difference in how the dyslexic mind processes words. It is interesting to note that, dyslexic or not, you were probably able to work out what was being said in the above examples even if it took you slightly longer than usual. This is all down to that remarkable thing between your ears; not the hard bony bit but the altogether more squidgy bit in-between. Somewhere in the brain is the key to understanding dyslexia – and hopefully this chapter will help you along the way.

Dyslexia was originally described by the term 'word blindness', which is far from an apt description of the condition and is probably why it was abandoned. However, the medical profession could have chosen something easier to spell than *dyslexia*! Still, perhaps by the time this book is finished I may have mastered the spelling at least. Despite the name change, the idea of 'word blindness' still persists – that dyslexia is the inability to read.

Worse still is the perception that dyslexia is associated with the 'less able', which couldn't be further from the truth. Linda Silverman of the Gifted Development Center has found that

children who tested as gifted also seemed to share a number of learning problems associated with dyslexia.[3] Although not exclusively, many dyslexics tested demonstrate extremely high and above average IQs. Indeed, it is the discrepancy between IQ and levels of reading and writing ability that currently acts as the most used test for dyslexia. As an example, my reading level is below average (98) and my written level is around average (114), however my verbal IQ is quite high (149). That said, it is easier to reach a lot of people with a book than to give you all my phone number! It has been suggested that as some areas of the brain develop considerably better than others, it is the difference in processing speed between the left and right brain that causes problems. The areas in the right side of the brain – associated with conceptualisation and creativity – are considerably quicker than those linked with decoding symbols, such as reading.[4] This is why people with dyslexia can also experience a number of positive traits. For example:

- Their perceptions can be created or altered by the brain (the primary ability).
- They have a high level of environmental awareness.
- They think and perceive multidimensionally (using all the senses).
- They can experience thought as reality.
- They have higher than average levels of curiosity.
- They are visual thinkers.
- They are highly intuitive and insightful.
- They have vivid imaginations.[5]

I wouldn't always consider my dyslexia a 'gift', as Davis and Braun do, but every cloud has a silver lining and it would seem that it can have its benefits. At the very least it somehow landed me a publishing contract, if not just for the irony.

The word dyslexia is derived from two Greek words, *dys* which means 'bad, abnormal or difficult' and *lexis* meaning 'word'. Φοβερό δημιουργικότητα was obviously a bit of a mouthful (for those of you who are a little behind on your Greek humour that translates as 'awesome creativity').

Dyslexia is a learning disability that impacts on the *form* in which information is presented; it not the information itself that is the problem. Dyslexia has an effect on everything from reading, writing and listening to organisation and processing, but specifically not intelligence. It affects people in different ways and it is this large degree of variation which means that, as with all learning, we need to ensure that as teachers we tailor our approach to the individual. This should be a primary consideration throughout this book – many of the strategies may need to be adapted or may not even work for some of your students. It is important to be selective and find what works best for you and them.

Research has highlighted that dyslexia is affected by developmental and genetic characteristics.[6] There is not one gene which is responsible for dyslexia, but a series of genes which can lead to an increased chance of its development. In this respect it is hereditary but not a promise. Dyslexia is a learning difficulty and therefore, like its counterparts, it is a

neurological condition. It generally develops in the foetus during pregnancy when the brain gains around a quarter of a million brain cells every minute towards a final total of somewhere in the region of 100 billion.[7] This results in a network of many trillions of connections, which in itself is an inconceivable number, dyslexia or no dyslexia.

As our knowledge of neuroscience develops we are beginning to have a much better understanding of conditions such as dyslexia. Magnetic resonance imaging (MRI) scans reveal that certain areas of the brain, which are known to have a high association with language, seem to light up less in people with dyslexia.[8] It is believed that this is because during brain development these connections do not form in the same way as they do typically. It is difficult however to translate any of this into the real world, other than to give us a better understanding of the origin of the condition and perhaps consider ways to stimulate these areas of the brain in early childhood. Studies have shown that there are windows of opportunity for the optimum development of various aspects of language so it is important that we exploit these opportunities.[9]

Even more fascinating is that when we look at dyslexia globally we that find the condition varies between languages. Different languages are structured in different ways and place different emphasis on different sounds and structures and therefore use different areas of the brain. English turns out to be one of the hardest languages to learn, so perhaps we should teach students a number of languages from an early

age to allow them to have more diverse forms of expression. Even more mind-boggling is the notion that if you were born dyslexic in the UK, you might not have been had you been born in Japan, and vice versa. It is all down to the specific areas of the brain which have been shaped and developed during childhood.

When we add reading to the equation it becomes more interesting again. John Stein and Zoi Kapoula suggest that 'more than half of dyslexic children may have eye control problems', a condition that can go on to heighten problems caused by dyslexia.[10] Dyslexics can have difficulties tracking along the page as well as processing the words themselves. If you have been diagnosed with dyslexia it is often recommended that you have your eyes tested. There is not a definite connection but it is always worth checking. It shouldn't be considered as the cause of the problem but rather a catalyst.

Historically visual impairment has often been cited as a root to reading problems[11] and there have even been cases made for visual forms of dyslexia. Johnson and Mylkebust[12] and Boder[13] went on to try to divide dyslexia into auditory and visual categories. Since then a whole range of research has attempted to pinpoint and categorise dyslexia into neat piles. The problem is that it doesn't really fit. Individuals are affected differently and ultimately these nice neat piles end up in a complete mess. It is always important, therefore, to ensure that students with dyslexia are treated as individuals with their own strengths and weaknesses.[14]

It is also worth considering other neurological learning difficulties when thinking about dyslexia. There is a link between dyslexia and dyspraxia, dyscalculia, attention deficit disorder, hyperactivity and the autistic spectrum. The association is not entirely clear, other than that a connection can be drawn between the causes of these conditions and that they affect the working memory (but often in different ways). It is possible that a child with one of these conditions may well have symptoms connected with the others, or even experience one of those conditions as well.[15]

Who is it likely to affect?

Studies suggest that around 10% of the population have signs of dyslexia with around 4% being affected severely.[16] For teachers, this means that there is a good chance that there is at least one pupil in your class with dyslexia, whether they know it or not. Research has shown varying degrees of dyslexia bias towards particular people, but in general it doesn't seem to show any prejudice towards race or economic status (but it does seem to depend on the sample taken). The only area where there has always seemed to be a slight tilt is gender. In 1984 Nathlie Badian did a study which showed that dyslexia was four times more likely in males than females;[17] since then however it has been shown to be a little more balanced.[18] Although I don't believe there is any likelihood of increased levels of dyslexia in males, there is still some significance because it is often easier to spot in boys.

In order to explain myself on this point I will refer to the sometimes controversial work of James Flynn on intelligence and gender difference.[19] When we look at average IQ scores, women have gained on men in the last decade to be equal or even a point or two ahead. Before you start to feel smug or hard done by, depending on your gender, what is interesting about the difference is that there is no correlation with genetic superiority. Flynn puts the difference down to the ability of girls to engage in mental exercises at school. But what is more remarkable is the social and cultural impact on IQ. Flynn found that female university students had a lower average IQ than their male counterparts; however, they were still able to get the required grades at school and university because they were better at engaging with schoolwork. The nature of the work itself also had an impact: female students seemed to engage better with the academic work generally demanded in schools and universities. This could be a contributing reason as to why we might notice dyslexia more easily in boys – when you add dyslexia to the equation boys are even less likely to get on with academic work.

What is also worth noting about Flynn's work is how these cultural impacts might have an impact in your classroom. In his book *Asian Americans*, Flynn looks at the potential difference between Asian-American and white students.[20] He finds that, academically, a Chinese student with a comparable IQ to their white counterpart will in all likelihood do better in their academic grades – which could be down to the fact that academia is highly valued by their parents and culture. So, perhaps a cultural change in our classrooms could lead to

better results. However, China also has the highest teenage suicide rate, which is also put down to academic pressure, so we do need to find a healthy balance.