# Children with dyslexia

Family, Children



## Introduction

Derived from the Greek word ' dys', meaning inadequate, and ' lexis', meaning language, dyslexia is a learning disability affecting comprehension of both oral and written language. Critchley (1975) highlights the specificity of dyslexia, describing " a disorder manifested by difficulty in learning to read despite conventional instruction, adequate intelligence, and sociocultural opportunity". Children with dyslexia display difficulty understanding the structure of the spoken and written word, which consequentially affects reading, writing, and listening skills. Difficulties with phonological processing lead to deficits in auditory working memory, whilst dyslexia may also infer impairments in cognition and organisation.

Dyslexia was originally identified in the late 1800s when Rudolf Berlin applied the term to a young boy who displayed difficulties learning to read and write in the absence of any intellectual or physical impairment (Chakravarty, 2009). Despite this early identification, there was a dearth of research into dyslexia and its underlying mechanisms until the 1970s. However, since the advent of neuroimaging techniques in the 1980s and 1990s, understanding of the neurological basis of dyslexia has improved.

Estimates of the prevalence of dyslexia in the US and UK populations are that 10% of the population suffer from dyslexia and 4% are severely affected. Additionally, dyslexia is the most common neurobehavioural disorders, accounting for up to 80% of all learning disabilities (Stordy, 2000). For those suffering learning difficulties, including dyslexia, educationcan be an intimidating and difficult experience, as difficulties present barriers to learning. Children whose educational requirements suffer as a result of their learning difficulties are defined as having special educational needs (SENs). Difficulties that may be classified as SENs include problems with schoolwork, understanding written or verbal information, communication, social interaction, behaviour, organisation, and physical capability (Direct Gov). These needs are currently recognised by the UK Government, which aims to ensure that children with learning difficulties (and their parents) receive adequate support and advice.

Children with dyslexia are defined as having SENs due to the difficulties experienced with reading and writing language. These impairments have implications for the speed with which children with dyslexia are able to progress compared with their peers, and can affect their confidence and cause frustration as the child struggles to read or communicate knowledge in written form.

Alfie\* is 12 years old, in his first year (year 7) of secondary school. He is an intelligent child, displaying particular inquisition in thesciencesubjects, and is a keen sportsman. Alfie's Englishteacherhas noticed that he is very quiet and often appears tired, disengaged, and apathetic in class. He is extremely reluctant to contribute to reading aloud, and compared to his peers, Alfie's work is laboured, taking much longer to finish, and he is frequently leaving pieces incomplete. Paying closer attention to the work that Alfie produces, his teacher finds that he displays difficulty with spelling, often crossing out

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and re-writing words. Upper and lower cases are used interchangeably, there are many occasions where the letters in the middle of the word are confused (ie. except for expect), and often the same word is spelt both correctly and incorrectly throughout the prose. Behaviourally, Alfie shows confusion when given lists or sequences to remember, often turns up late to class, and is forgetful of equipment and homework. Alfie's teacher does her best to accommodate Alfie's difficulties in her teaching, differentiating the curriculum so that his workload is less, and providing him support for his reading and writing. Despite this, Alfie's progress is slower than one would expect for someone of his age, and he is falling behind the progress of his peers. Alfie's parents are angry at his lack of progress and are frustrated that he is not putting in his best efforts.

Unfortunately for Alfie, it is 1962. Very little is known about dyslexia, its associated indications, or how to best support those that suffer from the learning difficulty. Believing that he is suffering with a medical disability, and adhering to the 1944 Education Act, Alfie's teacher refers him to the Local Education Authority, which is now in the position to decide whether or not Alfie is ' uneducable'. If deemed ' uneducable' Alfie will be removed from statutory education and will be provided separate, specially targeted education, where there is little opportunity foracademicachievement. For Alfie, his dyslexia may be recognised as his teacher has asserted to his specific difficulties. However, this was not commonplace in the 1960s, where the indications of dyslexia are often masked by the child's intelligence, or disruptive behaviour. Behavioural problems become the paramount problem for teachers, and whilst these are addressed, the child's dyslexia receives little attention. Failureto identify dyslexia can lead to underachievement and a lack of recognition of the child's intelligence. This can lead to extreme frustration and low self-confidence. Winston Churchill asserts how demotivating living with dyslexia can be without the right support:

" I was, on the whole, considerably discouraged by my school days. It was not pleasant to feel oneself so completely outclassed and left behind at the beginning of the race."

In the early 1960s, dyslexia was still very much considered under the realm of medicine (Lawrence, 2009), and up until the mid 1900s, the aetiology of dyslexia was believed to be neurological, stemming from visual impairment which caused the perception of letters and words to be reversed and transposed (Olitsky & Nelson, 2003). Other postulations, such as that of Nicholls (1960) asserted that reading difficulties were a problem of auditory deficit, cerebral damage, or emotional disturbance, but rejected the ocular hypothesis. These alternate hypotheses still inferred dyslexia as a result of a medical condition or brain damage, which is something now challenged by current understanding.

Despite the lack of insight into dyslexia and other SENs, specialised teaching methods were developed as early as the 1930s and were implemented if a child was lucky enough to be identified as dyslexic or in the right educational setting. Gillingham and Stillman (1936) implemented the first teaching method to help children with reading difficulties. They encouraged a multisensory approach, where children integrate visual, auditory, and kinaesthetic approaches to reading. Teachers show children how to say a word aloud,

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write the word, listen to the word, and then to model the word using clay. These techniques are still used today in the teaching of dyslexic children (Bradford, 2008).

The 1960s onwards saw greater recognition of SENs such as Alfie's, and progress was made in the research and support available for these needs, especially that of dyslexia. In 1963, the Invalid Children's Association set up the Word Blind Centre for research into and the teaching of children with dyslexia (Naidoo, 1972). Whilst the recognition of dyslexia was becoming more commonplace, so too, were awareness and research interest. Educational professionals and psychologists also provided more insight into dyslexia.

Departing from the pre-existing hypotheses, neuroimaging techniques have enabled further elucidation of the pathophysiology of dyslexia. It is now proposed that dyslexia is not a result of visual deficit, mental retardation, lack of intelligence, or brain damage (whatisdyslexia. org). Evidence now suggests that the impairment in the brain's ability to translate visual or auditory images into understandable constituents is due to differences in temporo-parieto-occipital brain regions (Lyon & Rumsey, 1996; Thatcher, 1996). It is this difference in the way language stimuli is processed in the brain which is thought to explain dyslexia (Shaywitz, 1998).

For a child experiencing Alfie's difficulties in 2012, support is a prerequisite, and learning how to accommodate for those who have SENs is now a component of teacher training and assessment in the UK (University of Oxford). Early identification of dyslexia is important to ease children's frustration, preserve self-esteem, and enable parents to further understand and support their child's education.

The education reforms of 1993, combined with the 1994 Code of Practice, placed emphasis on educating those with SENs, including dyslexia, in mainstream education. The code makes specific reference to SENs, highlighting the frustration, as well as emotional and behavioural difficulties that may accompany " significant difficulties in reading, writing, and manipulating numbers, which are not typical of general levels of performance" (Department for Education, 1994). The code acknowledges that approximately 20% of children will experience SENs at some time, and encourages schools to identify and support these children in the early years of education with the help of external services where necessary (Fawcett, Singleton, & Peer, 1998). This is in contrast to the ' uneducable' of the 1960s being removed from mainstream education. The code proposes step-by-step guidelines for those with SENs, and provides teachers such as Alfie's with formal direction when they find concern with a child's progress.

Further regulations regarding SENs were introduced in 2002, and this code is adhered to today. Schools are legally required to have a written SEN policy, and the fundamental principles ensure that:

Children with SENs have their needs met SENs of children will normally be met in mainstream settings the views of the child are accounted for parents support their child's education children with SENs are offered access to a broad, balanced and relevant education.

(Department for Education, 2001)

It is unlikely that with today's SENs provision, Alfie's dyslexia would have gone unidentified until his secondary school years. All education settings are required to closely monitor children's progress during the foundation years (age 3-5) and to look for any signs that children are making slower progress than their peers. Signs of dyslexia that may emerge at this early age may be difficulties in learning the alphabet, recognising letters in ones own name, rhyming, and sounding out simple word forms such as ' cat' (Shaywitz, 2003). If children are found to have SENs at this early age, parents are to be informed, and educational settings are compelled to intervene through ' early years action'. This ' action' may be in the form of a different teaching strategy, further assessment, formation of an individual education plan (IEP), or external support. An IEP is tailored to the unique needs of the child, what they find difficult and aspects that facilitate their learning, and importantly, objectives for the future. IEPs are implemented with the overall aim of raising attainment. They are maintained throughout the student's education, providing a key log of progress with which a student's needs can be individually supported.

All education settings are required to elect a Special Educational Needs Coordinator (SENCO), who assumes responsibility for liaising with and supporting parents and other professionals in relation to children with SENs. They ensure that IEPs are appropriate and in place, and account for the collection, recording, and updating of relevant background information of children with SENs. The SENCO will also undertake further assessment of the child's aptitudes, and further planning and reviewing their progress (Department for

Education, 2001). Current Government policies also place emphasis on the education and involvement of the parents regarding their child's SENs. SENCOs will aim to frequently inform parents of their child's progress, and act as one point of contact if parents have any concerns. Local authorities are also required to provide advice, information, and support to parents with SENs, offering access to forums, help with filling out forms, a chance to put across their views on current policy, and impartial advice lines (Direct Gov). Easing parental concerns and providing education lessens pressure on the child and gives parents a voice withrespect to their child's learning. This greater understanding, further provision, and increased support for children with SENs means that they are able to make progress and live a quality of life far more comparable to those of their peers than 50 years ago. The emphasis on early identification of SENs continues into Primary education, and for those with identified SENs, IEPs are passed on to the school's SENCO. At this stage of education, identifying a child with dyslexia may occur not only throughobservation, but the child, their parent, or teacher may request a screening for dyslexia, or a fulldiagnosticassessment. Dyslexia screenings are not considered diagnostic tools (British Dyslexia Association, 2012), however, they provide indication of whether the child may have the learning difficulty. The Dyslexia Screening Test (DST) is available for young children, those in secondary education, and adults, and assesses various aspects of phonological processing, reading, spelling,

fluency, and writing. From Alfie's teacher's observations, it is apparent that he would demonstrate difficulties on these tests. Dyslexia assessments are conducted by professionals with expert knowledge of dyslexia, such as a chartered psychologist or an assessor with an Associate Membership of the British Dyslexia Association (AMBDA) qualification.

Receiving a diagnosis of dyslexia is often liberating, allowing children who have been struggling with their learning to understand their difficulties and gain support from the education system.

" To find out that I was dyslexic was a relief. I had thought I was merely stupid. It made others patient with me and, more significantly, perhaps, it made me patient with myself." Matthew Sturgis – Journalist (Happy Dyslexic).

Once identified, dyslexic pupils such as Alfie now have provisions that facilitate learning into adulthood. In the classroom, children with dyslexia may receive further support from teaching assistants (TAs) who may work with individuals with SENs as a group or on a one-to-one basis. There are also accommodations for those with dyslexia that continue to university level. The phonological deficit in dyslexia means that even as word recognition improves over time, reading remains effortful, un-automatic, and slow. This is a difficulty that Alfie would likely experience in the next few years of his education. However, whilst in the 60s, Alfie would either have been removed from education, or be struggling with inadequacies, in the current day, students with dyslexia are provided with extra time with which to complete work. This allows dyslexic students time to apply cognitive and linguistic skills to understand the surrounding context of words that are not

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rapidly decoded and therefore their meanings (Shaywitz, 1998). Other provisions and interventions that support the learning of dyslexic students are laptops with spell checkers that are also able to read written work aloud, tape recorders, and recorded books. These accommodations, increased understanding, and patience of students, teachers, and peers means that for those with dyslexia, the learningenvironmentis not such a hostile place, and students such as Alfie can go on to be successful in a range of disciplines.

Despite the Government's emphasis on provision for those with SENs such as dyslexia, funding presents limitations to what educational establishments can accommodate and support. Schools have limited resources, and invaluable support staff, such as TAs, come at furthered cost. LEAs continue to support children with SENs, however to qualify for such support, children must receive a 'statement of special educational needs', or 'statement', wherein their learning difficulties are considered so severe and complex that sufficient progress within school is not possible despite best efforts. A proposed conflict of interest is that the assessment for a 'statement' is too conducted by the LEA. It has been postulated that the 'statement' qualifying criteria may be too stringent within certain LEAs as they struggle with conserving funds (House of Commons Education and Skills Committee, 2007). Future proposals may be to delegate the assessment for ' statements' to an independent body. For both schools and LEAs, there will undoubtedly be conflict as to how best to maximise provision for students with dyslexia and other SENs whilst allocating funding to all other requirements. It can be concluded that this may lead to cost cutting in areas, however with the implemented Codes of Practice and their revisions, the Department of

Education is continuing to safeguard the needs of students with learning difficulties.

It becomes evident that the understanding of dyslexia has evolved and deepened since the 1960s, and as a result of this, so too has the support and provision available. The UK Government has continued to implement further policies to accommodate those with SENs including dyslexia in mainstream education, with emphasis on inclusion being of paramount importance. Understanding of dyslexia as a difference in processing means that action can be taken to adapt teaching strategies to maximize learning, and students are able to realise their potential with the support of the education system. As research and investigative techniques improve, it is likely that the provision for dyslexia will become better attuned to the specific deficits of dyslexia and education professionals will be better informed to recognise the difficulty.

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