Dyslexia Review

The Journal of The Dyslexia Guild
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Editorial

We have made some more changes to the Editorial Team of Dyslexia Review, although the names are the same. John Rack has become the new Executive Editor whilst I have returned to the role of Editor. We are grateful to John for all the contributions he has made to support Dyslexia Review and are pleased not to have lost his services completely.

The Dyslexia community has lost a very special member with the passing of Tim Miles. Maggie Snowling has compiled a moving tribute to him for this issue. My first introduction to Dyslexia was through reading his Understanding Dyslexia (1979). We will never be able to count just how many people he similarly inspired.

About a year ago I assessed a young man with literacy difficulties who was a typical 13 year old – always had a Game-Boy in his hand. I wondered then if reading could ever become as attractive a pastime to him. One year later, with weekly lessons at Dyslexia Action and Units of Sound: Literacy that Fits at home, I have seen him with his head stuck in a book. This was not just reading because he has to, but the real 'reading because it's the only thing I want to do' type. Just occasionally, miracles do happen.

Margaret Rooms

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T R Miles OBE Professor Emeritus University of Bangor

Compiled by Margaret Snowling

Tim Miles, pioneer and friend of dyslexia, whose ideas inspired research in the field for some fifty years, has died aged 85. No one who reads this journal could have escaped Tim's theories regarding what he regarded as an 'intriguing anomaly of development'. Tim was a founder member of the British Dyslexia Association, and one of its Vice Presidents. He was appointed OBE for services to dyslexia in 2003 and, together with his wife Elaine, was the recipient of many awards including the Marion Welchman Award for Lifelong Services to Dyslexia and the US Orton Society's International Leadership Award.

Tim at work

In his fascinating autobiographical account, 'Fifty Years in Dyslexia Research' Tim leads the reader through the history of his involvement in the field of dyslexia and in so doing completes an important part of the jigsaw of the history of dyslexia in Britain. Here we learn that Tim's inspiration came from the careful study of individual cases; what unfolds is the development of an insightful theory of dyslexia that explains both empirical findings and clinical observations.

The thesis expounded by Tim was that dyslexia is a syndrome – it is not the same as poor reading but a disorder that encompasses a range of symptoms that include problems of verbal labelling, arithmetic difficulties, verbal short-term memory problems and subtle speech-production difficulties. Tim long believed that all of these signs provide clues as to the nature of dyslexia and he was at pains to operationalize the definition of dyslexia through his widely known 'Bangor Dyslexia Test'. Not satisfied with quantifying the syndrome in this way, with Mary Haslum, he tested his theory with reference to epidemiological data in the British Births Cohort Study, and it has stood up well. With his wife Elaine and colleagues in Bangor he closed a virtuous circle, wherein theory motivated teaching and diagnostic assessments of children and adults, and practical work in turn guided theory.

In parallel with theoretical developments in the field of dyslexia, Tim also witnessed changes in the views of the educational establishment with respect to children with specific reading difficulties. His initial cases were patients referred to Child Guidance clinics, and the predominant view was that these children had emotional problems. But Tim was perplexed that psychodynamic theories could not account for the consistent patterns of 'reversals', subtle language difficulties, problems of musical notation and extraordinary spelling problems that these children experienced. Rather he thought that the problem was constitutional in origin, likely to be some form of developmental aphasia. But the world of education was not ready to accept this view and battles raged as to whether 'dyslexia' should be considered a medical or educational issue. Key landmarks in the struggle for recognition included Tim' involvement in the establishment of the Word-Blind Centre in London in the 1960s, the inauguration of the British Dyslexia Association in 1972 and the establishment of the Dyslexia Unit in Bangor, which was to offer teaching to children in schools in north Wales in an important early partnership with the local education authority long before such alliances were the norm. There was also much going on behind the scenes; the establishment of the first Master's degree in dyslexia at Bangor to elevate the skills of practitioners of dyslexia, and meetings of proponents of the different teaching methods used in the UK which confirmed that, for teaching people with dyslexia, the preferred teaching strategy was structured, cumulative, multisensory teaching.

Tim's compelling account takes us on an intriguing journey of the pioneers of dyslexia through fifty years of scholarship. It does not shy away from difficult issues such as the role of IQ in the assessment of dyslexia (an issue Tim was contemplating even at the end of his life), whether or not there are subtypes and whether dyscalculia should be considered a separate syndrome

from dyslexia. Tim' work presaged much contemporary neuroscientific research on dyslexia. Importantly, current knowledge confirms that his clinical intuitions were right: dyslexia does have a genetic basis and is characterised by atypical brain function. It can be characterised as a syndrome in that a core phonological deficit can explain a wide range of the signs and symptoms that are experienced by people with dyslexia, beyond reading and spelling. Moreover, there are also what Tim calls 'dyslexia variants' – people who show some but not all the signs and whose difficulties may not be sufficient to fully qualify for the label. Thus, in families of parents with dyslexia, offspring may share dyslexic characteristics but not all succumb to reading problems (referred to as the broader phonotype of dyslexia). Finally, and most importantly, inheriting the risk of dyslexia need not be a cause for despair; early identification and appropriate teaching can do a great deal to ameliorate dyslexia and give those who are dyslexic the opportunity to use their talents to the full.

'Personally I am in no doubt that…it is right to think in terms of something constitutional…some slight abnormality in the way in which the brain has developed'

T.R. Miles (1970, p11)

It was remarkable indeed that Tim's insights from two children referred from a child guidance clinic were the foundation of his 50 years of research. In collaboration with his wife, Elaine, he devised methods of teaching suitable for children with dyslexia, and later extended these to embrace the problems experienced by those with arithmetic difficulties as well as to young adults in higher education.

Active despite ill health and failing eyesight, many of us last saw Tim at the 7th International Conference of the British Dyslexia Association in April 2008. He was, as ever, full of ideas, sharing his thoughts about the papers he had just heard and talking about his most recent research. Indeed he was still writing in the last few days of his life.

The Bangor Dyslexia Unit

Tim and his wife Elaine were responsible for the formation of the Dyslexia Unit at what was then University College North Wales. This Unit and the one at the University of Aston were the first attempts to make dyslexia academically respectable. It was set up to research and develop effective remedial teaching programmes, to train teachers, and to ensure a local provision for the assessment and education of dyslexic children. Many teachers have taken their M.Ed. at Bangor with a special focus on dyslexia, thereby benefiting untold numbers of children. One of the more renowned students of the M.Ed. was Bevé Hornsby, herself a trail blazer of dyslexia.

Remembered fondly by his colleagues in the Dyslexia Unit that he established with his wife Elaine:

All of us in the Bangor Dyslexia Unit have been privileged to know and work with Tim over a period spanning 30 years, and we have many much-valued memories of him and his work. Many years ago, our longest serving member, Ann Cooke, asked Tim if she could help in any way; his immediate response was 'Come and have a chat' and then, 'Elaine will show you what to do'. For this was how the Unit began: Tim was the psychologist, the researcher, the theoretician, the 'explorer'. The teaching service, how to train teachers, negotiating with the LEA over pupils and so on, was Elaine's work. In fact, she 'invented' the Unit as the way that help could be provided for local children. Later, the practical training course was her initiative and she extended their joint book '*Help for Dyslexic Children*' into a teaching programme. From the early 1970s Tim and Elaine collaborated on publications, attended international conferences, made lecturing tours together, and later jointly received dyslexia awards and honours. They were the Miles team.

Tim and Elaine at home in Bangor

At first, training was mainly 'hands on' - some background reading, explanation and observations, then a pupil to work with. This was typical of Tim - he trusted you to get on with it and respected the experience and opinions of teacher-practitioners. So under his leadership we all learned from each other. He was open to all ideas, his first response often being 'I like it'. Then it might go into the 'buzzes box' for thought and possible future work. And he speculated and questioned to the end. In the last weeks he remarked of some point we raised, 'I wish I could talk sense about that.'

This was not 'false humility'. He was clear about his achievements. He was pleased and happy about his OBE – and we were thrilled at the recognition. But he did not accept complacency in anyone. He praised and encouraged, and when he corrected it was not in a negative way; on a student's essay he would write '*Could I encourage you to* . . .'. It was an education to

work with Tim on a publication: he was exacting, could be provoking - expected you to defend a position - and finally, would accept a soundly argued point even if he disagreed.

Tim was accessible too, never refusing requests for help or an invitation to speak at a Unit teachers' meeting. He was always interested in our pupils and enjoyed sharing his memories of children he had assessed. Teachers held him in highest regard and he referred to us as 'the home team'

We respected Tim and loved him, as an eminent researcher, and as a kind and enthusiastic colleague who remained committed to ensuring that dyslexic children had the best possible opportunities in life. For them, he always emphasised the positives and he managed to pass to others his own optimism.
Of his autobiography, he said he would call it '*Look Back in Happiness*'. This quality comes through in his last book, '*Fifty Years in Dyslexia Research*'. How fortunate we are that he got that done. It has been a great honour to have worked with him, known him as an inspirational man and be regarded by him as friends.

Liz Dupre, Marie Jones, Julia Keeves, Ann Rees, Ann Cooke, Bryn Jones, Rhiannon Rowlands, Kelly Edwards

Ann Cooke, Bangor Dyslexia Unit, also provides details of some of the lesser known biography of Tim:

Tim's university career at Magdalen College, Oxford was interrupted by war service in 1942 though after a year he was released from the army as a conscientious objector. His strong moral principles continued to guide him throughout his life and are visible in all his varied contributions. In his private life, Tim was a fine tennis player, playing for his college while at Oxford and competing several times in the Wimbledon Championships. He supported the local United Nations Association branch and was a committed Quaker, belonging to Bangor's Society of Friends. Through all these, through his love of music, (he was a cello player and - again with Elaine - enjoyed playing chamber music and in local orchestras), and among his University colleagues, he had many friends, who regarded him with great affection and admired his work. In his later days he coped patiently with heart problems and failing eyesight, but he never stopped working. He completed the first draft of a new paper a few hours before he died. He will be greatly missed.

The Young Tim Miles

Tim was born in Sheffield in 1923 into a well-educated middle class family; his father was a civil engineer, his mother had a first class honours degree in Philosophy and was a teacher; he had one sister. Tim attended Summerfield School in Oxford before going on to Winchester College. The archivist at Winchester kindly provided some details about his school career:

> Thomas Richard Miles came here in September 1936, initially as a Commoner or fee-payer, but then transferred to College as a scholar in Jan 1937. He was a prefect from Sep 1940 and left in Apr 1941.
>
> Academically, Miles was very successful, reaching 6th book (our highest class) by 1939 and was in the very top class by 1940. His record card says that he played Win Coll Football, and was in one of the XVs team from 1938-1940. Winchester College play their own version of football. There are 3 teams, College, Commoners and Houses, and matches are played against each other at XV and VI a-side. These matches are amongst the most significant events in the school calendar. There are reports in the school magazine.

Tim is also mentioned in the magazine as being active in the debating society . He spoke in the following debates:

> Feb 16th, 1939 'In the interests of peace, stability and culture, the Press should be censored'.
>
> Oct 10th 1940 'That this house would be happy with one acre and a pig'.
> TR Miles (Coll) painted the joys of the rustic life in verse.
>
> Feb 27th 1941 'That this house deplores the Victorian era'.
> TR Miles (Coll) said that freedom of thought and action had been upheld by our ancestors and that they showed many qualities that won not only our esteem but our heartfelt veneration… That the age had not always been concerned with money making was shown by the abolition of the slave-trade, a step of distinct economic disadvantage. Throughout the age, technology had helped man achieve greater material prosperity and comfort. He concluded by reading a convincing passage of GM Trevelyan and some amusing verses.

More scurrilously, The Chamber Annalist wrote of Tim aged 16:

'Still rather prickly and of ungainly carriage but by now emancipated from the stigmata of F house. Though diffident in everyday intercourse, he was a lion of confidence on the tennis court, being a very lusty swiper of the ball. Something of a literary man I believe, and a musician'.

Tim went on to Magdalen College, Oxford, as a Classical Exhibitioner. He proceeded to obtain a degree in

'Greats', before becoming one of the first students in the Department (then the Institute) of Experimental Psychology at Oxford, a foundation for his later career. At Oxford he was a student of the eminent neuropsychologist Oliver Zangwill with whom he shared discussions of children with a type of 'aphasia' later described as 'dyslexia'.

Tim was appointed to a lectureship at Bangor University in the Departments of Education and of Philosophy in 1949, later to become founding Professor in the Department of Psychology in 1963, and remaining its head until the late 1980s.

Most would characterize Tim's scholarship as straddling psychological and philosophical inquiry but what made it distinctive was his extraordinary ability to take theory through to practical application.

The TR Miles Lecture Series

The lecture series came about to honour Tim's long-standing contribution to research into developmental dyslexia through the suggestion of Dr Ved Varma, an educational psychologist' his co-author on Dyslexia and Stress.

The TR Miles Lecturers

Dr Michael Thomson, Principal East Court School, formerly Aston University (1996)

Tim was a pioneer in the recognition of dyslexia in the UK. As a Professor of Psychology he was able to provide academic respectability to the notion of a specific learning difficulty; something the educational establishment and, particularly, Educational Psychology was refusing to accept. Tim, and my mentor Margaret Newton at the University of Aston, were the only two serious researchers studying dyslexia in the early seventies. One only has to look at the fact that today, almost all UK Psychology Departments conduct some research in dyslexia to appreciate the change in values. Although much of this can be attributed to Tim Miles' early work it is his generosity of spirit that was most noticeable. He was always willing to share and discuss his own work as well as listening to others' ideas. Furthermore he was keenly interested in the person. By that I mean he took care in observing, talking with and listening to dyslexics. He was not content with backroom research but wanted to get out there, assess, help, fight for and generally get involved. Tim's work with his wife, Elaine on teaching methods reflects this hands-on and 'wanting to do something' approach. I was privileged to have known Tim, from my early beginnings as a young researcher to being invited by him to become an executive editor of the journal Dyslexia, which he founded.

Professor Emeritus Uta Frith, Institute of Cognitive Neuroscience, University College London (1997)

Tim is now widely recognized as a pioneer in the search for neural causes of dyslexia. From the beginning he was committed to an experimental and neuropsychological approach to reading difficulties. I met him first at meetings of the Experimental Psychology Society (EPS) in the late 1960s, where he often gave papers. This was a brave thing to do at the time, because the talks were not well attended given there was not much interest in disorders of development. This was also true in the case of my mentors Beate Hermelin and Neil O'Connor, who often reported their innovative experiments on autism at EPS meetings. All these pioneers in neuro-developmental disorders took their inspiration from experimental psychology. I remember Tim Miles from those early days as an extremely kind and modest person, just emanating goodness. In a rough and competitive world he showed a complete lack of guile and of posturing. He was simply after the truth and was passionate about helping people with dyslexia, whether as children at school or as adults. He was instrumental in making dyslexic students feel welcome at university, a lasting legacy. Tim invited me to Bangor on several occasions and entertained me in a most unaffected and unpretentious manner. I remember the beautiful views from Anglesey where he lived. I think he was very happy there and was much loved by everyone he worked with.

Professor Rod Nicolson, University of Sheffield (1998)
Tim Miles was a colossus of British dyslexia research and practice - the leader and pioneer who wrote the first academic but accessible text; founded the first specialist journal; set up the world-renowned Bangor Dyslexia Unit; created the first screening test for teachers; set up the International Conferences on Dyslexia, and was instrumental in the formation and success of the British Dyslexia Association. Tim's achievements are manifest and are now embedded into the very architecture of the dyslexia community. I need dwell no further on them.

Anyone who knew Tim would be struck by his enthusiasm, his enduring kindness, his transparent goodness and his wholly constructive but unbending moral integrity. I add some personal anecdotes that I hope will strike a chord.

Angela Fawcett gave a talk on our (then new) automaticity deficit hypothesis in the Bath BDA conference in 1988. She was a PhD student and it was her first talk, so it was an immense challenge. Tim was outstandingly supportive, and as conference chair took it on himself to reorganise the next day's sessions to allow Angela to give the talk again in a larger lecture-hall. I was deeply impressed by this enthusiasm for the new, the willingness to be flexible, and his democratic inclusiveness.

Most summers my family spent a week in Bangor and I dropped in on Tim and Elaine. Tim would take me by the arm, saying 'Rod I've got this new "buzz"'. We'd go to his room and he'd explain some intriguing but hard-to-test idea. Usually a dyslexic PhD student or two would drop in and we'd go round and round the topic. We wouldn't resolve anything, but we'd all go off with ten times as many fruitful ideas as we started with. This anecdote reveals key aspects of Tim's modus operandi - his inclusiveness, his enthusiasm, his eclecticism and his open-mindedness.

One summer I took my tennis racquet at Tim's invitation. I was a reasonable club player. And Tim was giving me 25 years. When we got to the final couple of games, Tim suddenly raised his game. He made no mistakes, hit closer to the lines, and having spotted my weakness, started lobbing. He won, just, and we both enjoyed it immensely. At this stage he mentioned that he'd played at Wimbledon. He made the game look effortless, but he was determined to win! I think it's this deceptive subtlety that made him such an effective leader when more direct approaches might fail.

So, farewell Tim. You were indomitable, at times infuriating, inclusive and, above all, inspiring. We will not see your like again.

Professor John Stein, University of Oxford (1999)

I first heard of Tim Miles' work shortly after I was seduced into the controversial field of dyslexia from the respectable world of cerebellar physiology. My interest derived from the work I'd done on the role of the cerebellum in the visual guidance of eye movements; and the young recently appointed Wayneflete Professor of Physiology suggested I talk to Oliver Zangwill with whom he'd done some eye movement recordings of a dyslexic some years before. 'It turned out that Oliver's student who'd done most in the field of dyslexia thereafter was Tim Miles. And so the first book I read by Tim was one edited with George Pavlidis on Dyslexia Research in 1981. I was very impressed by his view that developmental dyslexia is a neurological syndrome with many facets, not only causing poor reading, spelling and phonological skills, but characterised by impaired timing, sequencing, working memory, focussing of attention and motor control as well; this is what you would expect of a disorder of visual transient input to the cerebellum. I had come to the same conclusion myself working with children who came to see me and Sue Fowler at a very unusual clinic for children with visual reading difficulties that had been started in the Reading Eye Hospital by a very foresighted ophthalmologist, Jimmy Macmillan. The descendant of that clinic we still keep going in Reading to this day. So I gorged myself on all the books Tim had written and became more and more impressed both with his broad research compass and with his humanity dealing with individual children.

I first actually met Tim a few years later at one of the first interdisciplinary conferences of the Rodin Foundation which (now Sir) Gabriel Horn hosted at Kings College, Cambridge. The Rodin Foundation was started by the Swedish dyslexic philanthropist, Per Udden, in honour of August Rodin's father for having the sense not to force August to become a lawyer, but to allow his dyslexic son freedom to pursue his career as a sculptor. The Rodin Conferences earned a well deserved reputation for interdisciplinarity, originality and lavishness. At the Cambridge one, Oliver Zangwill and Tim were getting very excited by all the new neuroscience techniques reported, which were beginning to show that indeed dyslexia had a clear neurological basis, involving the syndromal characteristics that Tim had detailed. It turned out that we'd both been to the same school and I now taught medical students at Magdalen College where he had studied classics, and from then on our paths crossed and recrossed almost to the day of his death. I shall always remember his joy at the perfect view of the Jungfrau from the Jungfraujoch on another of Per's fantastic conferences in Berne, and nobody will forget the peripatetic conference that started in Dublin and took us to all of James Joyce's favourite pubs and the nude bathing pool at Dun Laoghaire, then over the water to Bangor where Tim had organised a lovely harp and lilting Welsh poetry overture to our musings there. On 16 October 1987 I had the misfortune to be organising a Rodin conference on visual dyslexia, the morning after the great storm that Michael Fish memorably said was not going to happen. One of the few people who actually turned up was Tim who made it all the way from Bangor. Maybe he remembered that when he invited me to give the 4th Tim Miles Lecture in 1999 on the day that my mother died, so that I knew I'd have to make it, come what may.

In recent years I met him regularly in Bangor where one of my ex students is a Neurologist and at Winchester where I am a Trustee of an Arts Scholarship. He was always interested in anything I could tell him about the neurology of dyslexia, and I remember last year seeing him in September telling him about the new gene, KIAA 319, that my colleagues had discovered with the help of our Oxford families to be involved in early migration of neurones during brain development. He said – 'I always thought it was a neurodevelopmental problem'. He was one of the key people who saw how developmental dyslexia is more than just reading and writing difficulties. I for one will miss him immensely.

Margaret J. Snowling, Professor of Psychology, University of York (2000)

My fondest memories of Tim were around sharing a meal and a discussion!

Tim enjoying dinner at the BDA International Conference, York 1997

Ingvar Lundberg, Emeritus Professor, University of Gotenburg (2001)

Tim was a truly exceptional man. Tim meant so much to so many of us.
His dedication, his wisdom and insight, his friendliness and warmth was a great inspiration. I was proud when I was invited to give a Tim Miles lecture in Bangor a few years ago, and I remember all those magic moments when I, Curt von Euler and Tim met and Curt and I found out how much he contributed to our field and broadened our perspectives. His death is indeed a great loss.

Richard (Dick) K. Olson (2002), Professor of Psychology, University of Colorado at Boulder

My early brief encounters with Tim Miles at BDA and IDA meetings in the late 80s and early 90s were always rewarding. Each time I was impressed with Tim's great personal warmth, enthusiasm, and his knowledge about dyslexia. Thus, I was delighted to receive an invitation to present the 2002 T.R. Miles Lecture at Bangor University and to have the opportunity to get to know Tim and his wife Elaine during the three days of that meeting.
Though late in his career, Tim continued to be deeply engaged in understanding the varieties of dyslexia, their origins, and their treatment. Tim acknowledged biological factors, often genetic, that constrain learning in reading and related skills for many children and adults with dyslexia. He also understood the importance of intensive interventions and special accommodations that he promoted both in special schools for children with dyslexia and in general education. It has been a great honor and pleasure to know Tim. He was a prince of a man.

Joe Torgeson, Robert M. Gagne Professor of Psychology and Education at Florida State University (2003)

I remember meeting Tim in the summer of 2003, when he was 80 years old. The thing that impressed me most about him at that time was his lively curiosity about my work, and the intensity of his continuing interest in our field. I thought, at 80 years of age, he was a great example of a professional whose commitment to his field, because it was so encompassing, not only produced significant contributions but also provided a deep sense of meaning and purpose in his life.

Hugh W. Catts, Professor and Chair, Department of Speech-Language-Hearing:Sciences & Disorders, University of Kansas (2004)

One of the first books I read on the topic of dyslexia was Tim's 1983 book. It was his book and several others that led me to change the direction of my research career. His keen clinical insight and dedication to the field has inspired me throughout my career. I was very fortunate to meet Tim on several occasions, once in the States at an IDA meeting and later in Bangor when I gave the TR Miles Lecture. He was not only a learned scholar but a kind and generous man.

Dr John Rack, Dyslexia Action (2005)
I always felt close, personally and professionally to Tim and was honoured to be asked to give a lecture in his honour in 2005. Tim's contribution to the field of dyslexia has been immense and to many of us it seemed that, despite his failing eyesight and ever more creaky voice, he would carry on forever offering that rare combination of critical analysis and sharp thinking along with personal encouragement and support that so many benefited from. Tim had a knack of seeing through to the 'nub of the issue' and often expressed this in the most arresting terms. I recall one conversation with Tim about the definition of dyslexia which he summarised as 'ah well, it all comes down to whether you are a lumper or a splitter' and those terms still come to my mind when I think about, and discuss, the defining and distinguishing characteristics of dyslexia. And Tim's notion of dyslexia as a syndrome is one that has profoundly influenced my thinking both in research and clinical work. I also have vivid memories of Tim explaining his model of assessment as involving: 'A spelling test, an intelligence test and a dyslexia test' and perhaps one of Tim's greatest legacies in the field of dyslexia is his convincing argument that dyslexia is not just about reading. Tim was not afraid to use such sharp words but of course, when dealing with people, especially those who trekked to Bangor to seek his advice, his manner was always so warm. Those who knew Tim well knew that he was a Quaker, who have a publication 'Advices and Queries' from which I quote the following: 'Listen patiently and seek the truth which other people's opinions may contain for you. Avoid hurtful criticism and provocative language. Do not allow the strength of your convictions to betray you into making statements or allegations that are unfair

or untrue. Think it possible that you may be mistaken.' Tim certainly lived in the spirit of this advice, although I would suggest that today's evidence suggests that he was seldom mistaken. Indeed, Tim's ideas remain fresh and relevant today and fortunately there are many in the field of dyslexia who will continue to champion those ideas and to develop and refine them as he would have done himself. So much the better, if we can do so with even just a little of Tim's charm and good grace.

Professor Alan Baddeley, FRS, University of York (2006)
I first met Tim when I was invited to give a talk at Bangor. He not only convinced me that the study of dyslexia was both interesting and practically important, but also made me realise that one of my sons was dyslexic, and provided advice on how to obtain help. My visit led to a collaboration, an admiration for Tim for his combination of open-mindedness, wisdom and good sense, and to a continuing affection and respect for the Bangor department.

Professor Usha Goswami, Director Centre for Neuroscience of Education, University of Cambridge (2007)

My vivid memory of giving the lecture relates to Tim's intellectual enthusiasm and strong interest in new ideas. His guiding desire as an academic was to understand this perplexing condition, and his intellectual generosity meant that he welcomed all new approaches with an open heart, keen to understand them and to see how they might fit in.

Professor David Crystal, Writer and Editor *The Cambridge Encyclopedia of Language and The Cambridge Encyclopedia of the English Language* (2008)

Tim - whom I first met when I was at Bangor in the 1960s - provided me, quite simply, with the intellectual frame of reference I needed for dyslexia, when I eventually began my own work in the areas of literacy and speech therapy. Repeatedly, over the years, his insights informed my clinical research, and he was a huge influence on the character of my new journal *Child Language Teaching and Therapy*, when this began in 1975. He was a member of the editorial board, wrote a state-of-the-art article for its first number, and contributed several further articles and reviews over its first decade. Without him, I just wouldn't have been able to find the balance between clinical and educational settings, and between spoken and written language, that I wanted the journal to achieve. His enthusiasm for new developments was tangible and contagious, illustrated perfectly by our conversation after my T R Miles lecture on texting in 2008. Never one to miss a trick, and seeing the educational potential for exploiting the new medium in relation to dyslexia, he left my head reeling with a series of suggestions for research projects which he hoped I would immediately undertake. 'It would take a couple of lifetimes to do them all', I demurred. I got one of his quizzical looks, by way of reply - as one would expect, coming from a man who packed into one lifetime more innovative and influential research than most of us would manage to do in two.

Memories of Tim as a mentor

Tim was a sought after supervisor and a mentor to many. Collected here are varied memories from those who benefited from his tutelage.

Professor Nick Ellis, University of Michigan, Ann Arbor
In the mid 1970s, after a year as a farm laborer on Angelsey following graduation from Oxford University, I visited the then very small Department of Psychology at University College of North Wales Bangor to see if there were any opportunities for postgraduate studies. Tim was effusively welcoming, and my first impressions were of an extremely enthusiastic, intelligent, pleasant, but somewhat idiosyncratic individual - slightly reminiscent of the wild-haired and somewhat disheveled professor oft caricatured in cartoons. I was impressed enough to readily agree that research into developmental dyslexia would be an interesting path, despite, after our meeting, my having to search the literature to read about what dyslexia was. That this literature kept citing Tim Miles was confirmation enough of the wisdom of that decision.

Thirty years on, I reaffirm my choice. I am extremely grateful for all I have learned from Tim in the subsequent years. He was my mentor when I started at Bangor as a postgraduate student. He inspired me as he has hundreds of other students, psychologists, teachers, parents, and children who all share a concern with developmental dyslexia.

Tim was the founding Professor of Psychology at UCNW. He saw his first case of dyslexia in 1949 and he was immediately intrigued by developmental dyslexia as a theoretical problem. But more than that, he recognized that Psychology ought to be able to help people. His approach always balanced theoretical research with clinical and applied issues concerning remediation and education. His training in linguistic philosophy ensured that no one associated with him could rest in a false security of woolly language and fuzzy definitions (see, e.g., Miles, 1957, 1961). His clinical acumen and effort in the basic scientific slog of gathering, collating, and comparing hundreds of individual cases allowed him to see the syndrome pattern in the apparent labyrinth of diverse presenting symptoms (e.g. Miles, 1978, 1983). His true concern for people drove him and his wife, Elaine to set up the Dyslexia Unit at U.C.N.W. to research and develop effective remedial teaching programmes, to train teachers, and to ensure a local provision for the assessment and education of dyslexic

children (e.g. Miles, 1970; Miles & Miles, 1975, 1990). His enthusiasm fired all who know him. Throughout, Tim has urged us that people, science, scholarship, and, particularly, dyslexia, matter.

Dr Alan Beaton, Swansea University
While Tim was Head of the Psychology department at Bangor University (U.C.N.W. as it then was), it had the reputation of being 'hard line Skinnerian'. Indeed, in his doctoral thesis, subsequently published as '*Eliminating the Unconscious*', Tim applied a Skinnerian analysis to psychodynamic theory. His departmental colleague, Neil Cheshire, had also published a book, '*The nature of Psychodynamic Argumentation*'. Tim saw no contradiction in these two books sitting side by side on the desks of his (keener) students. What we were being offered, he acknowledged, was alternative conceptual schemes. Delivering his course on Philosophical Psychology, Tim once asserted that 'The only interesting problems are conceptual'. Certainly, his lectures on Ryle, Austin, Wittgenstein and Ayer were entertaining and highly stimulating.

Tim treated his students with courtesy and as his intellectual equals, which was, of course, rarely the case. In going through an essay one had written for him, he was generous in his praise if he thought a point had been well made or succinctly expressed. He often raised an interesting conundrum and invited one to 'Go away and think about it'. And he meant it. Your view was as valid as his own.

Tim had a distinctive sense of humour. Once he asked me whether I believed in extra-sensory perception. I replied that I did not. 'But', he persisted, 'do you at least believe in the *possibility* of ESP?' Grudgingly, I admitted that I had no incontrovertible grounds for dismissing its possible existence. 'Aha!' he exclaimed, 'Then why did you not control for it in your experiment?'

Although in some respects the archetypal Professor – his hands waved about energetically and his chalk-marked gown billowed behind him when he was excited about an issue - he was no ivory tower theoretician. When pondering my own postgraduate future, whether to do a doctorate or gain practical experience in a psychiatric hospital, he commented that it is good to leave academia for a spell to 'Go out into the real world and get your hands dirty'. He often said that whatever 'clever folks' might say or do, parents and other lay persons often had more real insight in to children's difficulties than professionals such as doctors or psychologists.

As one of Tim's personal tutees, I often had to meet with him in his office. On one occasion, after a particularly 'heavy' night out, I suddenly had to excuse myself for reasons which soon became embarrassingly obvious as the sounds of retching filled the department. On re-starting the tutorial, Tim's only comment, delivered with a wry smile, was 'Good evening, was it?' No moralising, no tut-tutting, he simply began again where we had left off. At the end of the hour, however, he gently suggested that in order to derive most benefit from our next tutorial, it might best be arranged not to follow so soon after a Psychology Society party! Tolerance for the excesses of student behaviour was typical of his quiet understanding of ordinary young people, despite his own academic brilliance.

Dr David (Dav) Devalle
As an undergraduate in Tim's department from 1976-1979, I became a postgraduate in the 1980s. The highlight of the summer term was when the department tripped down the A470 to Gregynog to meet up with another Psychology department (Cardiff) for the annual conference featuring guest speakers, staff and student papers.

Cardiff clearly spent the whole year preparing their show for the final night revue, whereas Bangor had a more improvised approach. One year I led a raucous rendition of a local punk song '*I'm Inadequate*' with Tim on cello, Neil Cheshire on piano and students on backing vocals. As the students urged the audience to sing-along, and we sang 'I'm inadequate, you're inadequate, you're a lot like me!' the situation started to disintegrate; I yelled to Tim, 'Take it Prof'! His face aghast, bewildered but without missing a beat Tim took the solo and we finished with sanity restored!

At Gregynog, as good students, we discussed psychology deep into the night; no sleep for us! At 6am, as we lay slumped in armchairs, Tim, fresh from a morning walk, beamed with the greeting 'There is such a tremendous sense of space here'. The posse of students gazed amazed, there was more to this guy than met the eye!

After the death of a fellow friend and Quaker in 2000, I was re-acquainted with Tim with an invitation to 'colloquy'. Tim was against the Magnus image of Theism, but in his own gentle way, Tim was a giant. May you rest in God, and - in the face of all superstition - good luck with the solo!

Dr Sula Ellis
I have had the privilege of knowing Professor Tim Miles for 32 years. I first met him when I was a psychology undergraduate at The University of Wales, Bangor. I was delighted to learn that he was to be my supervisor for my final year project which was about dyslexia. Tim was a very kindly and supportive supervisor who guided gently.

From that time on we have worked together on various research projects on dyslexia including my PhD on Dyslexia and Mathematics (exploring the four operations)

alongside Professor T. J. Wheeler, Vice-Chancellor of the University of Chester. I was honoured that Tim agreed to stand in for my father at my doctoral award ceremony.

Tim has been a constant source of inspiration, kindness and tremendous wisdom. He was an outstanding Professor who was wholly and completely dedicated to seeking a greater understanding of dyslexia for the benefit of others.

Tim never retired: his work and devotion until the end has earned the respect from a global community of fellow researchers, practitioners and dyslexic people. He certainly was a pioneer with a passion for his work which will thankfully live on through the numerous publications that he and his wife Elaine produced. He has certainly touched many hearts.

Sula and Tim have a co-authored paper: Turner Ellis, S.A., Miles, T. R. and Wheeler, T. J. (2009 *in press*) Extraneous bodily movements and irrelevant vocalisations by dyslexic and non-dyslexic boys during calculation tasks. *Dyslexia.*

International friends and colleagues

Marcia Henry, Past President of IDA (1992-1996)
Tim Miles was a great friend for many of us in the International Dyslexia Association. He and his wife Elaine were recipients of IDA's Distinguished International Award in 1996. Elaine wrote me of Tim's death and said how influential IDA had been to him. She noted that 'he still had a zest for life, and was still writing and publishing at the time of his death.' He and Elaine visited us on Madeline Island in Lake Superior, along with Le & Roger Ganschow. We have fond memories of times together there, and at BDA and IDA conferences. He will be missed by so many!

Leonore (Le) Ganschow, The IARLD (International Academy for Research in Learning Disabilities)

Tim Miles was an honorary member of the IARLD; Tim was like a mentor to me. Under his guidance we published an article together on music and dyslexia (Annals of Dyslexia 1994, 44, 186-202) and we edited a special series on 'Dyslexia across the World' for the IDA publication, *Perspectives* (The International Dyslexia Association, Winter 2000). Tim's impact on the field of dyslexia is recognized in many countries. His legacy continues with the many educators he has inspired throughout the world.

Sally E. Shaywitz, M.D. Co-Director, Yale Center for Dyslexia & Creativity, Yale University School of Medicine

Tim was someone who was really special. Bennett and I had occasion to speak with him several years ago. He was gracious, delightful and committed to the children and adults with dyslexia whom he cared for. We learned a lot from him.

Memories from colleagues and collaborators

Victor van Daal, Director Dyslexia Unit 2000-2003
I met Tim for the first time when a dyslexia conference was held at Bangor to celebrate his retirement. But Tim never retired at all. Instead, he started a new journal, maybe worked a bit less; that is, Elaine would take him home for lunch, after which he would resume working from his home office. But he certainly played more tennis when I was at Bangor as a British Council Research Fellow a few years later in 1991. In the beginning I didn't understand why he would like to play a guy 27 years his junior, but after a couple of sets Tim admitted that he had played at Wimbledon in 1946 and 1947. He would say, with a big smile on his face: 'but we were amateurs in those days', more or less in the same way as he told me several times: 'ah, Victor, I have never been a good manager, that's nothing for me!' Tim's tennis was quite modern, he had the latest gear, and above all, a good touch and a gracious style. He would let you see all corners of the court, exploiting his well-placed service and, certainly for his generation, a fabulous backhand. After a warm-up, we usually played three sets or so, finishing off with a game he would always win: Tim smashed 10 out of 10 lobs, even if you made it as difficult as possible for him. When I was at Bangor again, from 2000 till 2003, Tim used to give me tickets for Wimbledon. These tickets were very special: they did not only give you access to the Centre Court, but also to the All England Club. However, when I first tried to get into the Club, access was kindly refused, as I was not wearing a tie (never wear these things). After some begging I was let in and taken to a huge dressing room, where I could pick from 200 trousers, shirts, jackets, and…ties before indulging in strawberries with cream (and champagne). Tim would certainly never have bothered warning you about these sort of things, but rather tell you about Michotte's work or something else of real importance: 'Victor, you should not write silly things about tennis, write serious things!'

Tim with tennis team (upper row, far left)

Professor Angela Fawcett , Director, Centre for Child Research, Swansea University

It was with very great sadness that I learned of the death of Tim Miles. Tim was an indomitable figure and a very dear friend, the 'Grand Old Man of Dyslexia' although he defied the word 'old' right to the end of his life, continuing to make unique contributions to the field despite his failing eyesight and health. I first met Tim in 1982, as the parent of a newly diagnosed dyslexic boy, when I set up an evening course for parents at Sheffield University, and invited Tim to be our first speaker, followed by Sandya Naidoo and Margaret Newton. Tim's reputation was outstanding amongst researchers at that time, and continues to be unrivalled for his insights into the pattern of difficulties which dyslexic children face, well beyond the literacy problems that characterise dyslexia. When Matthew was 6, we took him to the Dyslexia unit at Bangor, and Tim tested him, on the Bangor Dyslexia Test, as well as my husband David, who also showed signs of dyslexia, on a number of simple experimental tests. Tim's work became my inspiration, and his 1983 book 'Dyslexia the Pattern of Difficulties' became my bible and sourcebook for my early research, and in introducing my colleague Rod Nicolson to dyslexia. Tim's concept of using positive indicators of dyslexia (rather than simply discrepancy scores on literacy) influenced our thinking in both our theoretical and applied research. There have been many obituaries published which have praised Tim Miles for his academic qualities and research. But for me it is Tim as a person who will be most fondly remembered and missed. A research meeting with Tim was unlike any other I have experienced, with Tim sharing the 'buzzes', the inspirational ideas that characterised his thinking, in an exhilarating flurry of communication. The experience would leave you breathless and buzzing yourself with a thousand ideas which would need a lifetime to take forward. Tim's innate warmth, his sense of justice and fairness, reflected in his Quaker faith, his openness to new ideas, his non-partisan approach, and his major commitment to openness, truth and the wellbeing of children with dyslexia were my inspiration and strength in twenty years of dyslexia research. All this accompanied by an occasional glare of unaccustomed severity when anyone disturbed the tranquility of a harp recital with idle chatter. These to me are the essence of Tim. The world is a smaller place without him.

Colin Whurr, Former Managing Director of Whurr Publishers

It was a pleasure to be one of Tim Miles's publishers. For several years, I think Whurr Publishers was in fact his only publisher. Tim was not only the ideal author in that he regularly met deadlines, and paid due attention to proof reading and correction, but he made the whole process a delightful experience for my colleagues and me because of his unfailing courtesy, dedication, integrity and personal kindness.

We first published the second edition of Tim's Dyslexia: the Pattern of Difficulties, then Dyslexia and Stress, in two editions, and Music and Dyslexia which Tim edited with John Westcombe. Shortly before Whurr Publishers was sold in 2005, Tim and I were discussing Fifty Years in Dyslexia Research which was published the following year by John Wiley. Altogether our happy association covered a period of some fifteen years.

Tim's academic and educational achievements will be lauded by those better qualified than I, but as an author – in the technical sense of writing skills, accuracy, care and attention to detail - Tim was in the front rank. It was a privilege to have worked with him.

Professor Judy Hutchings, Incredible Years Wales Centre, School of Psychology, University of Bangor

Tim was one of the first people I met when I came to Bangor in 1973 to work in the careers office of the University. He invited me to share lunch with him in his office to talk about careers for psychology graduates and we soon realised that we were also both passionate about issues to do with world peace and how to achieve it. Over the years I have met him and Elaine regularly at United Nations and other peace related activities. We discussed how to publicise the contribution of psychology to an understanding of the arms race and the faulty logic of the policy of mutually assured destruction (MAD). He spoke at one of our medical campaign against nuclear weapons meetings on this, introducing people to Bronfenbrenner's study on the 'mirror image in east-west relations'. The population on both sides thought the other side was out to get them!

Over the years it was clear that he was equally enthusiastic about and interested in all aspects of psychology and its potential to contribute to the good of the planet. Truly a gentleman and a scholar who had endless enthusiasm for psychology and its contribution to improving people's lives.

Dr Marketa Caravolas, Director of the Bangor Dyslexia Unit

I'd known of Tim Miles, the editor of the journal Dyslexia and author of many papers on the manifestations and causes of the disorder, long before I met him last spring in the course of my interviews for the directorship of the Dyslexia Unit, which he founded. I had read and cited papers by Tim, Elaine and their students in my early work on spelling in dyslexia; many of the questions they were asking three decades ago remain a focus of scientific inquiry still today.

When I finally met Tim in 2008, I was pleased to meet a gentleman so magnanimous and welcoming, so gracious and humble. When moving into my Bangor office, I was all the more pleased to discover that we were neighbours, a very nice touch, and Tim thought so too.

Over the weeks of the semester, which sadly turned out to be the last weeks of his life, Tim shared with me a 'history of the unit in brief', as well as his many current plans and future aspirations. When we proposed at the Unit to update the Bangor Dyslexia Test, Tim enthusiastically participated in the review and planning sessions for the revised battery. He had many research questions ready to be investigated; he was very keen to remain informed and to contribute where he could to the future directions of the Unit.

T R Miles was appointed OBE in 2003 for services to dyslexia.

He will be remembered by all who knew him as a wise and generous man, a giant in stature as well as in intellect. The firm belief that guided him throughout his life was that people, science, scholarship, and particularly dyslexia, matter; for this, and much else he will be fondly remembered. His lasting legacy will be the enormous difference he made to the lives of people with dyslexia. All who consulted him, no matter from what walk of life, were met with kindness and benefited from his constantly positive and encouraging approach.

This Tribute was compiled by Maggie Snowling. Thanks to Ann Cooke, Nick Ellis and Susannah Witts for invaluable assistance.

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Accessible documents – a beginner's guide

Alistair McNaught

The starting point for creating an accessible document is to make it available in electronic format. This makes it immediately available for text to speech, mindmapping etc; but even without additional software, a properly structured Word document is a powerful assistive technology with many inbuilt features that benefit dyslexic people. In this article by Alistair McNaught of the JISC TechDis service, some of the key accessibility features of Microsoft word are explored. These include the following themes which are explored in more detail in the sections following.

- Automatic navigation through the main themes of the document
- Easy transfer to mind map software
- Easy modification of font colours, styles, line and letterspacing
- Easy magnification of text without scrolling left or right

Maximum meaning from minimum words.

When a wordprocessed document is structured using inbuilt heading styles the Document Map view gives instant access to all the headings and subheadings in the text. This provides an important overview of the concepts, priorities and relationships of the ideas – rather like a mindmap in one dimension. A dyslexic user can browse the document by heading levels until they find the section of interest. Opening up the subheadings allows them to rapidly find key information. In this way, very large and wordy documents are made manageable and a dyslexic user can find their way to key sections in the document without negotiating acres of text.

How do you do it - in brief?

Click View > Document map. The screen splits with the left hand side turning into an interactive list that can be expanded or contracted by clicking on the plus and minus signs.

Please note that this will only work well if the document author has used structural headings in writing the document. This is a perfectly fair reasonable adjustment to expect and the JISC TechDis service has produced and disseminated ample guidance on how to do this – see JISC TechDis Accessibility Essentials 2: Writing Accessible Electronic Documents with Microsoft® Word (www.techdis.ac.uk/accessibilityessentials) for more guidance.

How do you do it – more detail?

For more detail and a video clip see the Navigating Documents section of JISC TechDis Accessibility Essentials 1: Making Electronic Documents More Readable (http://tinyurl.com/TD-navigate). If you have the latest version of Microsoft ® Word see the updated guidance available from http://tinyurl.com/TD-update

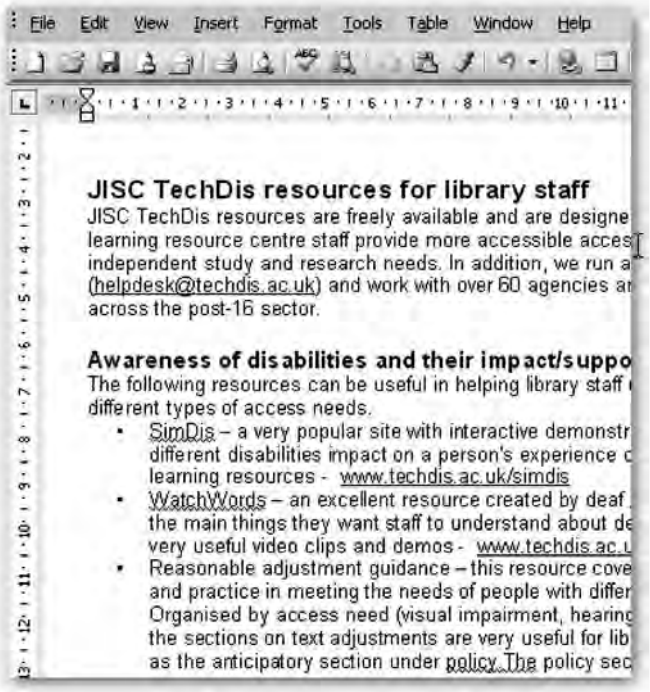

Figure 1. original resource

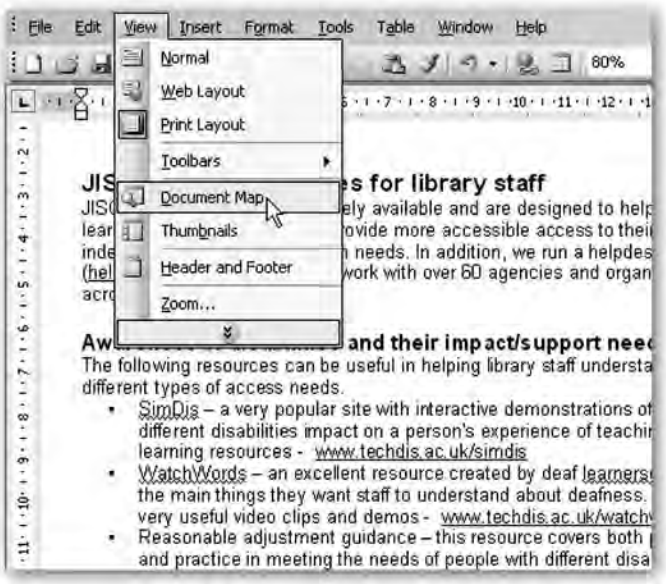

Figure 2. Finding the document map view

Mind Mapping magic.

For readers who are more comfortable with information in a mind map form, a document which has been properly structured has more benefits than the document map view outlined above. A powerful feature of the structured document is the ability to be imported into mind mapping software. Normally this feature is only available on commercial mind mapping software, but check your favourite mind mapping program to look for the option to import from word.

How do you do it - in brief?
The exact menu commands will vary from package to package but look for the file menu and see if there is an option to import from word.

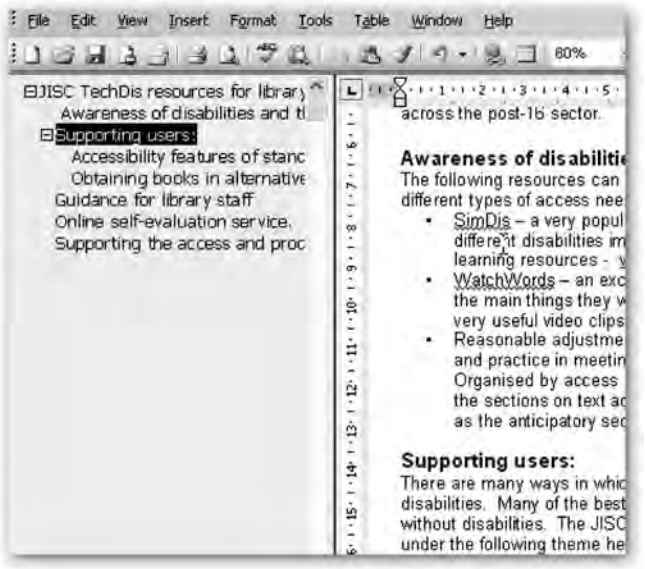

Figure 3. clicking on any heading in document map hyperlinks directly to the point in the document

Figure 4. the original document - 9 sides of text

Figure 5. in less than 30 seconds the structured document can be transformed into an interactive mind map.

Controlling colour; fixing fonts

Many dyslexic users benefit from text being printed on a particular coloured background or at a particular size or line spacing. Many find some fonts easier to read than others. One of the benefits of reading documents online is that the user can personalise many aspects of their view, even choosing to change their preferences as tiredness and fatigue set in. The secret to maximum control is knowing how to manipulate document styles and knowing which view options are the best for you.

How do you do it - in brief?
To change the font quickly select all the text (CTRL + A is a useful keyboard shortcut to do this) and select the desired font from the menu bar. The best way of changing magnification and background colour is to select the Web layout view (View > Web layout) first, then select magnification ((View > Zoom) afterwards. This ensures that the text reflows to fit on the page without left/right scrolling.

How do you do it - more detail?
Find out more (including easy shortcuts to adjust line spacing etc) by visiting http://tinyurl.com/TD-fonts (colours, fonts) and http://tinyurl.com/TD-enlarge (enlarging text).

Summary

The JISC TechDis service argues strongly that the starting point for an accessible resource is to make it available in electronic format and organise it using inbuilt structural headings. This is basic good practice which any document author should be able to implement and any reader will be able to use to good effect. Many organisations now pay careful attention to the accessibility of their print documents and yet the electronic version of those same documents makes no use of the most powerful accessibility tool available to the user. The JISC TechDis accessibility essentials series is freely available online at www.techdis.ac.uk/accessibilityessentials. It covers reading documents online in Word, Web and PDF format as well as creating accessible word documents and unpacking many time-saving tips for dyslexic authors.

Other areas of the JISC TechDis website
Those involved in supporting dyslexic learners may be interested in:
Free software tools – www.techdis.ac.uk/getfreesoftware
Advice on reasonable adjustment – www.techdis.ac.uk/getcreation
Free online accessibility self evaluation to help assess your practice – www.techdis.ac.uk/getevaluated
Benevolent Bill – what Microsoft does for accessibility – www.techdis.ac.uk/staffpacks

Alistair McNaught

Alistair Mcnaught is Senior Advisor for JISC TechDis service

Specific Learning Differences on Trial

Melanie Jameson

People with dyslexia and related Specific Learning Differences (SpLDs) face great difficulties in their dealings with the justice system at every level. This article explores what can go wrong, along with disability entitlements, current initiatives and a campaign to establish good practice.

Court rooms are not SpLD-friendly places, in fact almost everything about court and tribunal processes seems to draw on exactly those skills that people with dyslexia and related SpLDs generally lack. Does this mean that people with SpLDs are merely disadvantaged in these situations or is the attainment of justice at risk when their conditions are not understood and properly accommodated?

Problems in court

When the former Disability Rights Commission convened a focus group of adults with Dyspraxia, Dyslexia, Attention Deficit Disorder and Asperger Syndrome to discuss this issue they considered the problems they had faced in courts and tribunals and came up with the following list of problem areas:

- a build up of stress, because of the long waits for hearings
- sensory overload from the lights, bustle etc

* difficulty coping with a room full of strangers in unfamiliar settings

- any lack of eye contact is mis-interpreted as being 'shifty' but people with autism are often unable to talk *and* make eye contact
- following the cut and thrust of court exchanges where very precise answers are expected
- giving answers relating to dates, times or place names
- providing information on sequences of actions without inconsistencies
- finding the place in a pile of documentation, when required
- maintaining concentration and focus without becoming overloaded

The group concluded that they felt their credibility was in doubt because they could not 'perform' as expected (Jameson, 2007a).

This came as no surprise to me. My expert witness work in criminal and family courts had enabled me to observe the 'performances' of people with SpLDs at first hand. The first casualty was coping strategies, which inevitably break down leaving the individuals struggling with the full impact of their Specific Learning Difference. A member of my Lancaster Adult Dyslexia group, accused of obstructing the police because he was unable to blow into a breathalyser, became more and more confused in court until he was more or less incoherent. In my next expert witness case a man with Dyspraxia made extraneous arm movements as he strove futilely to make his point, eventually weeping with frustration as he tried to decipher his notes. His voice became louder and louder until he was told to stop shouting (Jameson, in Miles 2004).

Over the following years I was drawn into employment tribunals supporting a number of individuals with SpLDs challenging unfair or constructive dismissal: three of the individuals concerned had been so affected by their experiences at work that they were under the doctor being treated for depression and stress-related illness. In this anxious state they struggled to prepare their cases. One woman abandoned her case altogether because of her experiences dealing with lawyers and the medical specialists involved in the case. She became increasingly distressed because of what she described as 'their insensitivity and ignorance', explaining her decision to withdraw from the case as follows:

There seems to be little or no recognition that the legal and medical processes are causing me extreme stress because of difficulties stemming from my dyslexia (especially information overload, poor memory, difficulty putting my views over and lack of confidence). These affect my ability to make my case clearly.
I have found the manner of some of the specialists patronising at times. They have shown a complete lack of sensitivity.

My confidence in the whole process, and in particular in the individuals involved, has disintegrated. I am very concerned that I will not be able to put my views over as I would wish at the tribunal. I am afraid that I will be unable to grasp what the questions are seeking to establish and will do myself down (Jameson, in Moody 2009).

Litigants in Person

At least the people mentioned above had representation. The next individual for whom I wrote a legal report was to struggle as an 'Unrepresented Party' or 'Litigant in Person'; these terms refer to a claimant who is obliged to represent him or herself, being unable or unwilling to employ a solicitor. Sometimes legal aid can be withdrawn part way through a complex ongoing case, as happened with this dyslexic father who was seeking custody of his children.

His problems were magnified as he now had to manage his own case, interview witnesses, instruct specialists

and cope with extensive documentation in which precision and correct procedure were paramount. Although his new partner was able to help him locate relevant papers during the hearing, he still faced a formidable challenge. I was pleased that on this occasion it had been possible to circulate a document I had prepared, outlining the accommodations that should be made due to his dyslexic difficulties but even this was turned against him when the judge suggested that, by stressing his dyslexia, this father was presenting himself as a victim to influence his children. I was even asked if people with dyslexia make poor parents! (The inference was: if you really have all these problems how can you look after children properly?) My reply alluded to dyslexic strengths and the fact that parents with dyslexia can be particularly helpful to children who also have this condition, as was true in the case under consideration.

This seemed to be a Catch 22 situation: either you try and cope in the courts without acknowledging a Specific Learning Difference or you provide evidence of disability but it is inferred that you are using this as an excuse.

Conclusions, so far

What conclusions do I draw from witnessing SpLDs on trial (or in preparation for trials and tribunals)?
Firstly, without exception, solicitors had no idea whatsoever about the realities of SpLDs. Secondly, the theoretical safeguards of disability legislation do not appear to function in practice.
Thirdly, when defendants, witnesses or claimants have a language processing difficulty such as dyslexia, rigorous cross examination is not the best way of getting at the truth of the situation. Especially when barristers become involved, the whole process seems like an elaborate game of verbal chess with the key players before the bench struggling to get to grips with the rules of play.

By this stage I had formed the opinion that this state of affairs amounted to a 'access to justice' issue for the large SpLD population and set about exploring how it could be remedied. I decided it was no good to simply offer training here and there. The only approach was to aim to embed guidance on the impact of SpLDs right across the justice system.

The campaign begins

It seemed logical to start at the top with the judiciary. This entailed a flurry of communications before I identified the best organisation to work with: the Judicial Studies Board. By a stroke of luck, the man with responsibility for the disability content of guidance for the judiciary turned out to be a judge who had previously come across my documentation in a case that had come before him several years earlier. This contact led to a fruitful partnership with the opportunity to write a section on SpLDs in the *Equal Treatment Bench Book*, produced by the Judicial Studies Board for judges, magistrates and tribunal chairs. SpLDs were also flagged up in the summary version of the Bench Book, *Fairness in Courts and Tribunals*. An important element of this work was the updating and extending of SpLDs in the Disability Glossary of both publications.

This initiative was followed by input into a training DVD for the judiciary which took the form of an interview between a High Court Judge, a person with SpLDs and me (as a consultant on SpLDs). It will be widely used with practitioners of civil and family law. However it is vital that this awareness transfers on to the criminal justice side because we know that there are disproportionately high numbers of offenders with SpLDs (Jameson, 2007b).

The work with the Judicial Studies Board in turn led to opportunities to provide accredited CPD for lawyers, training links with HM Courts Service Disability Managers and workshops for the Crown Prosecution Service and Parole Board. I was aware that Judi Apiafi, well known in Dyslexia Action, had contributed a session on dyslexia to the Police Diversity Trainers Network.

Having been drawn to user-led organisations, I had already identified DANDA as the best organisation with which to work. A House of Commons event to draw attention to our Justice Agenda led to a meeting with the Justice Minister Maria Eagle, in preparation for which I realised that I must take account of the political dimension of my Access to Justice campaign. Co-incidentally the term 'Access to Justice' was the key, being one of the Departmental Strategic Objectives (DSOs) of the Ministry of Justice in which progress must be made and evidence supplied for the vital comprehensive spending reviews (Ministry of Justice, 2008). Other useful instruments are the Public Service Agreements (PSAs) which similarly focus much of the work of government departments.

One of the issues I raised with Maria Eagle was the effect of massive cuts in the department (£1 billion over three years). Surely these would limit the work on diversity and equality and delay the implementation of support initiatives? The Minister was quite adamant that improving disability provision was a cross-departmental priority that must not suffer due to cutbacks. Reaction to my reference to PSA 16 on addressing the social exclusion of adults, showed me that I had struck gold by wielding DSOs and PSAs. So this was how to get through to government departments.

The next challenge was how to provide a single source of information, in addition to continuing to target the various agencies that form part of the justice system. I decided it was necessary to write a summary document, outlining the traits of the various SpLDs and emphasising impaired abilities in justice settings. A similar publication

was already available on Autism (National Autistic Society, 2008) whereas ADDISS have published a book on Attention Deficit Disorder in justice settings (Anderton, 2007). The emphasis would be on how SpLDs can be accommodated. Entitled *Good Practice Guide for Justice Professionals*, it is due out in Spring 09, in collaboration with the British Dyslexia Association. The strap-line reads: *Guidelines for Supporting Clients and Users of the Justice System who have Dyslexia and other Specific Learning Difficulties.*

I have come to realise that we must move forward with a variety of complementary approaches to improving access to justice, namely:

- Embedding guidance on Specific Learning Difficulties throughout the justice system
- Pressing for initial training and Continual Professional Development to include the impact of the various Specific Learning Difficulties; this must be extended to support systems such as Appropriate Adults and Witness Intermediaries
- Establishing the expectation that *Reasonable Adjustments* documentation will be circulated and taken into account in court and tribunal hearings.

Consistency and Reasonable Adjustments

On this last point, the courts system will be much more likely to accommodate itself to Reasonable Adjustments requirements if SpLD professionals are consistent in their approach to documentation. In the Equal Treatment Bench Book (2008) I give an example of how this could be laid out in three sections; a shortened version of this is reproduced here.

Reasonable Adjustment documentation
Part 1. Summary of previous assessments
Part 2. Outline of individual's Specific Learning Difficulties/Differences
EXAMPLE
Ms X has been assessed as Dyspraxic and Dyslexic with particular difficulties in the following areas:

- working memory skills ie holding pieces of information in one's head while undertaking a task or during a process of consideration
- short-term memory skills eg recalling information (without referring to notes)
- sequencing dates in chronological way
- maintaining concentration and focus in a busy environment
- sensitivity/intolerance of background noise

Ms X's difficulties mean that she is liable to become overwhelmed & experience stress.

Part 3. Recommendations for Reasonable Adjustments
EXAMPLE
1. <u>In court room exchanges</u>

- Ask single rather than compound / multi-clausal questions.
- Allow thinking time before pressing for a response.
- Allow Ms X to request that questions to be repeated or rephrased and/or permit her to check understanding by rephrasing them herself without censure or (implied) criticism.
- Take working memory difficulties into account ie give Ms X time to check back with her notes, especially when relating to particular dates and sequences of actions.
- Make allowances if Ms X has difficulty answering concisely.

2. <u>Coping with written information</u>

- Allow Ms X to have an assistant to locate information in the court bundle as directed.
- Ms X should not be presented with new information and expected to absorb the import of it on the spot.

3. <u>Additional factors</u>

- Ms X requires a break of ten minutes after every hour to restore concentration.

A key point is that the accommodations should be arrived at with the input of the individual concerned and, ideally, sorted out in a pre-trial direction hearing. The issue arises of those who may not realise they have an SpLD but who encounter formidable problems with aspects of information processing and communication. In the Bench Book the judiciary has been advised of the widespread nature of SpLDs and should be prepared to take whatever steps are necessary to facilitate the gathering of reliable evidence.

The Disability Equality Duty

In recent years, another way has opened up, enabling Specific Learning Difficulties organisations to get their voices heard. Various sections of the Ministry of Justice and key organisations such as the Bar Council are contacting us regarding consultations on their Disability Equality Duty; this legal requirement leads to the drawing up of a Disability Equality Scheme or Single Equality Scheme, linked to Action Plans and monitored via regular Impact Assessments. I am finishing this article on the way to such an event, hosted by the National Offender Management Service (NOMS).

Previous experience with the Ministry of Justice has not filled me with optimism. In the autumn of 2007 I was asked to convene a regional focus group of people with a range of disabilities to discuss issues relating to disabilities and the Courts. The issue, once again, was access to justice and how it could be improved. Our main focus was the role of the Disability Liaison Officer (also referred to as the Disability Contact Officer); we recommended that this vital role be expanded to serve

as an information point both for users of the courts with disabilities and professionals / court staff requiring information about disabilities. Our recommendations were fed into the consultation process but we were disappointed to see that the final document had not taken them on board. Fortunately the subsequent meeting with the Justice Minister gave me another opportunity to forward these proposals.

In conclusion, there remains a lot of work to be done before people with SpLDs can expect to have their difficulties understood and accommodated throughout the justice system, but a good start has been made, on which we can all build. I welcome collaboration in this work.

Melanie Jameson

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NIACE
(available from dyslexia.mj@dsl.pipex.com)

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Wiley-Blackwell

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www.jsboard.co.uk
Equal Treatment Bench Book Sections 5.5 & 5.6
Fairness in Courts & Tribunals (summary of the Equal Treatment Bench Book)

Ministry of Justice (2008)
Secretary of State's Report on Disability Equality

National Autistic Society (revised 2008)
AUTISM – A Guide for Criminal Justice Professionals

Website - including information on the courts:
www.workingwithdyslexia.com

WRAT-4

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The fourth edition of the world's most widely-used short test now includes a new Sentence Reading sub-test to measure reading comprehension along with the original sub-tests.

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Dyslexia Support Survey

Fiona Hover

Background

As part of an accessibility project that Dyslexia Action was working on with RNIB, we wanted to capture the voice of the dyslexic student. We prepared a short survey, which we wanted to use with 100+ dyslexic students during the autumn of 2008.

In order for the survey to have some currency we needed to find students from a range of institutions and with varying degrees of support. We decided on a computerised questionnaire and to enlist the help of teaching contacts to disseminate it.

The Dyslexic Students

Any dyslexic student between the ages of 14-20 no matter what type of school, college or educational establishment they attend was invited to take part, the more variety the better.

Accessibility and support

The survey was in the form of an online questionnaire and was made accessible to text and screen readers so that most students should have been able to complete it independently. However, if teachers wished to help them to complete it there was no reason not to. The advantage of teachers being involved would be that they could discuss the issues with the student afterwards.

Time and timing

We estimated that it would take about 10 minutes to complete on average although of course individual times would vary.

Responses

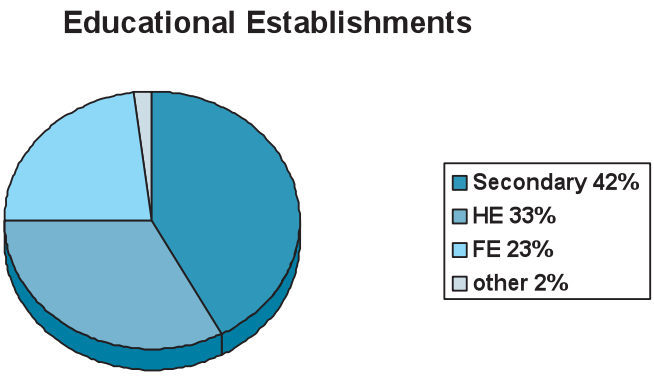
In the event we found it much more difficult than anticipated to contact and encourage the number of students to complete our on line questionnaire. We extended the completion date to the end of December and circulated the link to the questionnaire more widely. This increased the number of inappropriate entries.

By the time we closed the survey we had 50 useable responses. Another 26 started but did not complete it. The following data relates to those 50. However, data collected when there were only 25 responses produced very similar percentages. It is possible that having a total of 100 respondents may not have produced significantly different data. However, given the size of the sample the results should be regarded as indicative data only.

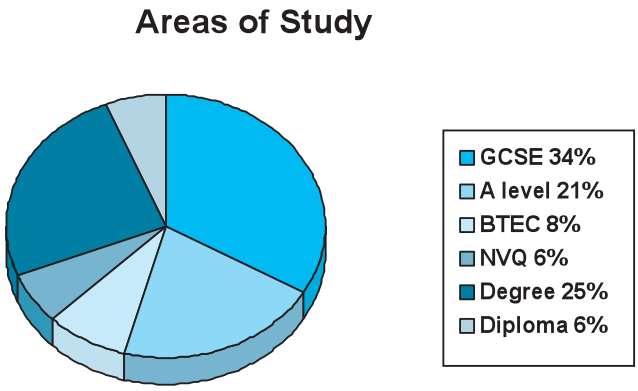
About the response cohort

Where were they studying?

The final number of valid responses came from a number of educational establishments. The largest group (42%) was secondary schools. These included State Comprehensives, Independent and Grammar schools. Those who had left school formed 56% but were divided into two groups, Higher Education (33%) – to include Universities and HE Colleges – and Further Education Colleges (23%). There was also a response from a home-schooled student and one in a Special School.



What were they studying?



Dyslexia Assessments

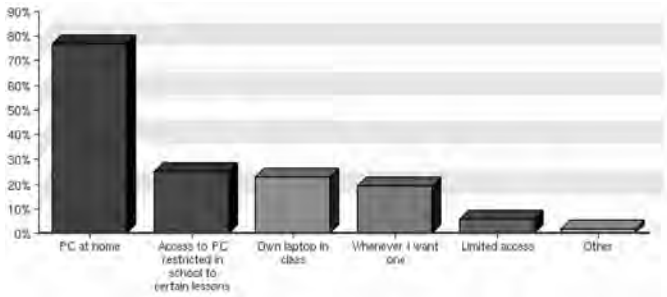
Just over 70% had had some kind of a dyslexia assessment. Of the remaining number it is hard to tell if some non-dyslexic respondents had completed the questionnaire. However, the number of respondents that abandoned the questionnaire at this point may indicate that this was not so and that the respondents that had not had an assessment for some reason were self-diagnosed. Although only dyslexic students aged 14-20 years old were asked to complete the questionnaire there was no way of ensuring that this was so.

Of those who gave information about when their assessment had taken place most gave a date between 2005 and 2007. However some were much older such

as 'when I was eight'. Some gave information about who conducted their assessment. The majority were educational psychologists but some were specialist teachers. A few didn't know who had assessed them and one response was 'my mum'.

About the help received

We asked about computer access. The choices were: PC at home; Access to a PC restricted to certain lessons; Own laptop in class; Whenever I want one; Limited access and No access. The responses are represented below.



It was clear that computers were generally available but perhaps not used as a standard tool within the teaching environment.

We also asked about help given to cope with their dyslexia:

Do you have help to cope with your dyslexia from:

ITEM	When I need it	Regularly	Sometimes	Never	I don't think I need it
Specialist dyslexia teacher	11.5%	21.2%	5.8%	48.1%	13.5%
A mainstream teacher	7.7%	13.5%	15.4%	48.1%	15.4%
A support worker	7.7%	7.7%	5.8%	61.5%	17.3%

The results made depressing reading with nearly half not getting any help from a specialist teacher. The surprising result perhaps was how many did not think they needed it.

Comments on who gave support and how it helped included:

teacher who is part of AEN (Adtional educational needs. Gives me help in lesson we have togather. By helping me with spelling and answering questions

A tutor provided by the university, every week. She helps me find ways of reading quicker and also ways of improving and checking my essays.

Dyslexia specialist is always available should I require. Lessons are given by teachers in all different formats which helps me.

She teaches us memory patterns and how to revise for tests. Like mind maps

LSA -reads or scribes

a specialist teacher once a week helps me proof read my work and teaches me new tequniques for spelling and grammar

i a private lession at school weekly.

I have been told i have the option of gaining general help but not that sersific to my course. but am unsure and have never been instructed by the uni on how to gain appoints etc

Dyslexia Action, Bristol - Study Skills lessons

Support staff, sound things out. sometimes write for me Talk to me

I have a learning support assistant to help me with spelling, reading etc. i get a reader and scribe and 25% extra time for exams

dyslexia adviser with the univeristy

Help from teachers at college and specialist teacher. Specialist teacher at uni through DSA.

If i am struggling in a subject my teacher will try their best to find time to help me but that is quite difficult as there is so much in the curriculum to cover. My mum is a special needs teacher and gives me great support with my English.

my mum and dad

another college gave me a csw. The other students stopped speaking to me. The csw wrote notes but my mother had to read them and complained about bad spelling and grammer. The csw was helping others when I needed things read in class. Having a csw did not help me at all. I had to guess questions in class and my mother had to read to me at home.

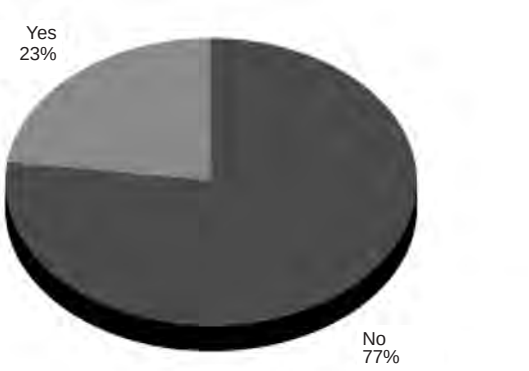
There is a special teacher that sees me every friday to help with speelling and memory problems assosiated with dislexia and otehr problems i also have i also have a laptop and a coloured overlay for lessons

I DO NOT GET HELP AT SHCOOL

I have not been given any advice from my college about what help I can get.

Extra time

A large proportion of respondents had extra time in exams.



(70%) Yes – this would indicate that these respondents had a genuine dyslexic difficulty (23%) No

Independent accessibility strategies used included:

Please tell us what independent accessibility strategies you use.

ITEM	I really need this	Regularly	Sometimes	Never
Text to speech for reading	11.5%	9.6%	17.3%	61.5%
Text to speech for spelling	11.5%	9.6%	15.4%	63.5%
Organisational software eg Inspiration or Mind Genius	7.7%	13.5%	15.4%	63.5%
Voice recognition	5.8%	3.8%	19.2%	71.2%
Spellchecker other than MS Word	23.1%	17.3%	19.2%	40.4%
Dictaphone or other recording device	9.6%	11.5%	15.4%	63.5%

We then asked what other techniques they used. The replies made interesting reading.

just keep going over the information and get someone to test you.

colour pens to help colour code active reading m]by using a highlighter/colour pens

I have my iPhone setup to synk accross all my computors to keep track of people, notes, events, money and lots more orginational purposes. This allaws me to have everything I have accessable from my pocket.

Claroread for Mac USB LDA dictionary Aural coded dictionary Protools i pod 'see also mother'

spell checker on ms word

Talking through my ideas with another person for examples for essays or revision it helps me get my thoughts across or explain things better.

computers

Talking through my ideas with someone else so I can easily express my ideas and explain them in particular for essays and revision.

Picture cards - for languages

Totally rely on spell checker

Other humans i.e. family friends to read to me - proof read work etc

rhymes for the spelling of words

Read lots of books. Practise makes perfect.

Drawings

Printing and getting other to check thourgh work and then continuing the process, also use of paper dictionary and google which sometime brings up correct spellings when spell checker does not seem to work.

I use spell check

I was not diagnosed until I was 17, so i developed many strategies to cover up my dyslexia. I received no help from school. They labelled me as lazy and spoilt. I managed to complete secondary education with 3 Alevels and one GCSE, one year after my peers. I am now working part time in a nursery and studying on a cache course. I am afraid to tell the course leader about my dyslexia. I find it difficult to keep up with note taking as the teacher talks, i am so exhausted that I find it difficult to process everything and cannot give any feed back during lesson time.

Keep very organised through use of diaries etc.

When I revise for a test I photocopy all my notes and highlight them with colour markers as i read through them.

breaking up the words and using pictures and colours in my head to prompt me to remember the word...it's really frustating and I am eally embarrassed...what if I don't have dyslexia and I'm just stupid? I really worry about this.

Read outloud to help me understand. Read over and over outloud to make that sentences make senence in writing .

my mum looks at my work

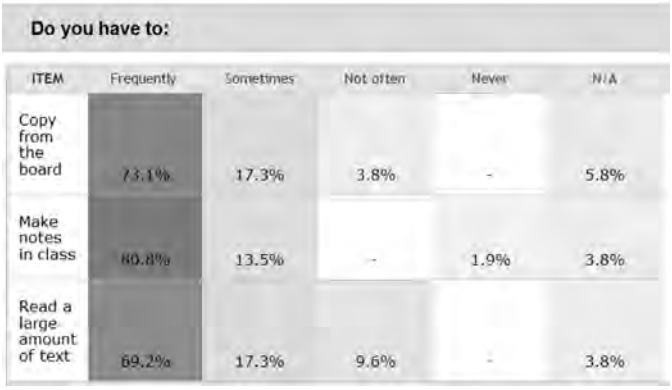
my mother attends the same class and can read me what I need. She also reads her notes to me for revision.

i do loads of mind mapping and using a laptop works mircules for orgaisation

Asked how often they had to do certain tasks the results were as follows.

The not applicable answers were from the home-schooled candidate and one who was only year 9 due to repeating a year.

We questioned respondents about how easy or hard it was to do these tasks.



The suggestions respondents gave to make it easier to cope with their dyslexia were as follows:

one to one and revision packs when it comes to exams so than i can highlate it and it helps me to reivse

extended essay time, strategies to get my thought on paper without getting in a muddle, help to prioritise ideas,

Awareness by staff probs worse through stress because there is not enough time is the key problem. Lack of orientation assistance i.e. signage in buildings and especially on trips to unknown places. Tutors ensuring Blackboard or similar functions with correct info

Maybe have some more extra help in the class.

a reader in exams as i offen misread quesitons. 1-1 support

if my school took more of an intrest, and instead of making me write everything down (which i cant really do) they could give me sheets instead. Also to have more time for my gcse

exra time in exams

help with reading things and making them sink in. and help with describing

Revision help and preparation

People believing you actually have a difficulty and aren't just 'thick' - have spent most of my education being taught in the lowest ability classes yet I am not intellectually lowest ability. Appropriate lighting in classrooms, modified textbooks, handouts and specialist teaching. Having school identify dyslexia in first place - parents had to pay privately.

not as much writing in some lessions.

Someone to check up on me that understands my condition and to help me understand as well, as I was very little it was explained to me and I didn't really know much about it.

Reading is my main problem and find it hard to keep up, many teachers give long reading list of just books, it would help it that shorted this to main chapter and then many helped with the reading giveing more information out about the topic in short notes. as many accademic texts are hard of reading and require dirctionary use at all times and looking up of persific lanague, which they just expect you to know and copw with, more time when wrtting essay is there needed as reading up about topics takes longer. or to be given eassay before other students just to complete the reading. most teacher show no repesct for the fact i have trouble reading spelling etc and are unsupportive.. which demotivates... so motivation would be helpfull. one to one seesion with teacher would also be benefial

advice and support

I would like it if someone could help me filling in forms as i have alot of trouble reading the forms and helping me to spell alot of words.

Not having to write anything down - a scribe. Longer to complete work in class - esp with reading.

No school

Funding to be properally assessed. Study support within schools on skills about time management, essay planning etc, to gain skills how to make learning easier.

better awareness by my tutors of what dyslexia really means to me and how it affects me, not just with my reading but everything I try to do

Softprograms for spelling, etc. Help with taking notes in large lectures

I wouldn'y know where to start.

dont no

Dyslexia to be recognized as a Learning Disability and extra time in exam.

I think if more people were aware of my dyslexia it would be easier to cope. I'm in a swimming club and it takes me forever to add up and subtract my times! My coach normally has to do it but waterproof calculators disguised as a watch would be fab! I have a big problem with numbers and learning new languages. I find it almost impossible to learn Irish history in the irish language off by heart! It only stays in my head for 24hrs then its gone! I think important notices in public areas should have an audio recording of that notice for people with dyslexia to hear it rather than them struggling to read it. Shops and any public building where people have to read should have audio or visual recordings to make it easier. Libraries should do more of this too.

Having the handout in advance so it can be read to me before class. handouts on yellow paper a copy of everything noted on the board so it can be read to me later

---

i would like help with organisation. it is hard for me to get a scribe wich i really need in my exams they say my writing is readable and fast however the people who see wether i can or cant get a scribe dont see the point that dyslexia happens more when under stress (exam stress)

The 'Right to Read' campaign, among other initiatives, is asking for students to have access to text in alternative formats. Whilst the advantages are obvious for the visually impaired the number of enquiries Dyslexia Action receives in relation to acquiring books in digital format has been limited. We wanted to know if this would be perceived as useful to the dyslexic academic community.

Nearly two-thirds thought that it would be a 'good idea' but over a third thought not. The general feeling seemed to be that while useful, it was not a priority for dyslexic academics. Possibly because the cohort was already tackling academic work many had developed their own coping strategies.

We listed the main features of digital text to fine-tune the perceived advantages. The biggest surprise is perhaps the equal split of 'not useful' and 'very useful' for 'Changing the background colour'.

How useful would you find:
1= not useful 5 = very useful

ITEM	1	2	3	4	5
Changing text size	21.2%	17.3%	26.9%	11.5%	23.1%
Changing background colour	30.8%	11.5%	17.3%	9.6%	30.8%
Changing font style	17.3%	21.2%	23.1%	13.5%	25.0%
Changing line spacing	19.2%	11.5%	25.0%	17.3%	26.9%
Using a text to speech reader	25.0%	15.4%	23.1%	13.5%	23.1%
Converting text to audio	23.1%	17.3%	21.2%	7.7%	30.8%

In response to the question 'Do you think it would it be useful to have textbooks in digital format?' the majority was in favour but not resoundingly so. Just over a third (35.42%) said it would not be helpful.

Comments on Digital format
Those who said it would not help included:
Easier to read a book

---

no because if it is on paper you will be able to highlate the importatn bit you need to know.

---

it might make it better, but it is six and half a dozen

---

i think i manage ok

---

because i can't take in thing's that i have to listen to if they go to quick.

Because text books are fine as they are.

I find textbooks easy to use personally and have no need for them to be in any other format.

I get headaches reading on the computer

It would drive me mad!

Not sure what it means, to be honest?

Those who said it would included:
online books may allow wuick internet searchers for words and understanding. also allows highlighting and printing of important sections and would allow search of words linkied to topic as not also is it possible for me to read a whole book in the time given, and remember inportant information so that could be saved/ highlight for future referance

---

so it can be read by software

---

some find it Easter and more conveniant to use a computor than read from books. People also develop software to help read and body of text to the user

because you shouldn't have to copy out from the textbook. I feel that i wont assimilate the any information that way. I feel their is more to be gained by reading aloud the text and then rewriting it in a format that is helpfull to you.

Downloadable - easy to revise and listen to on the train - see bbc i player and good for HE accommodations like viva voce. It is a reinforcement and am glad that audio is legally o.k. like it is for blind students.

So i can hear it when im alone...and where its really quiet.

espeshaly in audio, then i coud lissen to them over and over and make notes from it, insted of haeving to read pages and pages of infoermetion. although, my auditry memury is also extreemlery poor.

it better on the computer because you dont have to write

because if there was a word you are not sure on what it meant you could easily look it up.

It would easier to read and can look up words if I didn't understand what one meant.

I like to hear and visualise from audio equipment

I already have text books on computer and find it easier, as you dont have to carry or remember to take books with you

due to the high amount of text in a text book i feel audio would help me to keep consintrated and understand the work much more clearly

so you can't loose it and also you might not get sheets witch get lost

Means I don't have to take my books everywhere.

I have use this method before, this means that all information is read and that you are able to know what it say without finding it hard to read, and losing or forgetting what you have read before hand.

I have to re read text several times before I understand, The words jump around and often I leave out chunks of important information. Audio highlighted text would prevent this. I would complete reading tasks much quicker and not be so tired when it comes to organising then writing...

Carry them around on a memory stick rather than textbooks. The computer could read them to me. You could use the computer's dictionary to look up the words.

keep your place easier. make words bigger.

I could use a computer to get it to read them to me

I have more success with my work when I can work on a computer.

As this would help prenounce the words

audio to reduse amount of reading needed

It would help me because if i was to read it in a book i would have to read it over and over again but if it was on the computer it would be much bigger and the audio is for listening.i perfer listening.

Then you can have the books read to you.

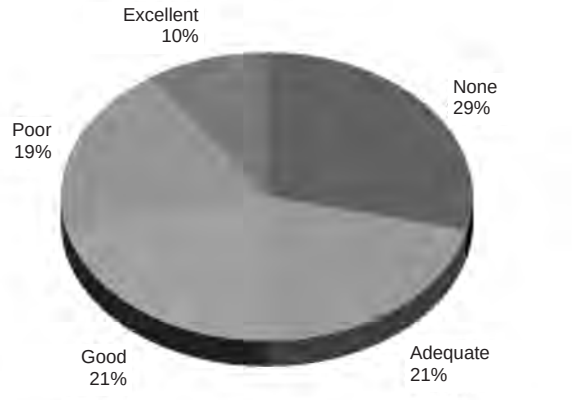
to listen as well as read

my mother has recorded chapters on casette and I listen to them on the bus travelling to and from college. My mother says it is not good to read a lot of text on the computer screen as her eyes hurt.

i have tryed it in pycology lessons and it works well and at the end of the lesson the teacher can put it on yhr mrmory stick for futrue revison instead of loads of papers

Finally we asked respondents to rate the level of support they received.

The level of support received varied from none to excellent.



Sadly the largest proportion (nearly a third) of respondents claimed they had no support at all. However, just over 40% rated their support as good or adequate, whilst a small proportion rated their support as excellent.

Conclusion

So what did we learn? That the 14-20 dyslexic cohort is not easy to reach. That many dyslexic students are not using the technology that is available to them. That digital text is not as high a priority for dyslexic students as it is for the visually impaired. That many dyslexic students faced with academic study do not receive the quality of support that they need. That what people may think is appropriate and useful for dyslexic students is not necessarily perceived that way by the end user. More

research needs to be taken to find out the specific needs of dyslexic academic learners and what *they* think are crucial learning tools.

Fiona Hover

Fiona Hover is the Development Manager for Educational Development at Dyslexia Action.
Dyslexia Support Survey 2008

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Cortical Activation of Japanese Developmental Dyslexic/Dysgraphic Adults and Children During a Working Memory Task With Novel Chinese Characters/Non-Verbal Figures

Shoko Katano, Yoshiya Moriguchi, Takashi Ohnishi and Akira Uno

Abstract

The aim of this study was to clarify the brain regions that are activated during working memory tasks using novel Chinese characters and non-verbal figures in Japanese readers with developmental dyslexia and normal readers. Both groups consisted of five males and one female (mean age 19 years three months). We focused on Chinese characters, which have not been studied previously except by Siok et al. (2004). In this study, the dyslexia group showed significant activation in the left supramarginal gyrus by novel Chinese characters task. This area was considered to be an important region for transforming visually-presented letters to verbal sound. It is likely that the left supramarginal gyrus was activated because the dyslexia readers memorized the novel Chinese characters by verbalizing parts of the characters to spoken language to compensate for their poor visual memory. In conclusion, the results of this study suggest that the cerebral dysfunction in developmental dyslexia results from the same biological disorder irrespective of the written language used by individual dyslexia.

Introduction

'Dyslexia is a specific learning disability that is neurobiological in origin.It is characterized by difficulty in accurate and/or fluent word recognition and by poor spelling and decoding abilities'(Lyon et al, 2003) . Although neurobiological studies reported that dyslexia showed a different pattern of brain activity in the visual-information-processing area or the phonological information processing area compared with normal controls, the precise dysfunctional area in the brain is still controversial. Moreover the results of brain imaging studies on dyslexia conducted in countries using alphabetic languages differ from those conducted in countries that do not use an alphabetic language such as Japan (Shaywitz et al. 1998, Temple et al. 2003, Siok et al. 2004, Seki et al. 2001, Kaneko et al, 1998, Uno et al, 1999, 2002).

The purpose of this study was to examine cerebral activations by fMRI during a working memory task using novel Chinese characters and non-verbal figures in Japanese developmental dyslexia.

Methods

Participants

Twelve right-handed healthy native Japanese speakers participated in the study. These consisted of 6 dyslexic adults (five men and one woman, mean age 19.3 years) and 6 adults with no history of learning difficulties (five men and one woman, mean age 19.3 years). All participants gave informed consent for participation in this study. No participants had a history of a neurological or psychiatric disease. The dyslexic readers had been diagnosed with developmental dyslexia based on the results of the standardized achievement test of reading, writing and cognitive ability (Tables 1, 2). The dyslexia and control groups were well-matched in educational level, age, full-scale IQ score, and verbal IQ score (Table 3). The protocol of this study was in accordance with the guidelines established by the Ethical Committee University of Tsukuba.

Table 1. Results of the WISC III, RCPM and ROCFT in the readers with developmental dyslexia

	WISC III				ROCFT			WIRO			
Readers	Full IQ	VIQ	PIQ	RCPM	Copy	Immediately after	Delay	3mora (RA)	*z*	4mora (RA)	*z*
1	99	104	93	32	34	30	30	8.2	5.49	12.7	2.06
2	79	90	72	29	30	17	15.5	3.8	1.66	10.5	2.79
3	94	105	83	28	34	21.5	23.5	5	2.31	18.4	3.64
4	93	100	87	32	23	4	2	1.2	-1.4	2.8	-0.7
5	93	101	84	32	31	15.5	10.5	5.9	3.21	16.5	3.12
6	94	105	83	33	34	6	8.5	-	-	-	-

WISC-III=Wechsler Intelligence Scale for Children-III
Rn's Coloured Progressive Matrices (/36)
ROCFT=Rey-Osterrieth Complex Figure Test (/36)
RT=Reaction Time From the signal to start speech to the end of the spoken response.
WIRO=Word In the Reverse Order (/10)
The values of ROCFT for copy, immediately after, and delay are shown.
ROCFT and WIRO : raw score

Table 2. Results of the Kana and Kanji reading and writing test in the readers with developmental dyslexia

Readers	Reading						Writing					
	Hiragana	*z*	Katakana	*Z*	Kanji	*Z*	Hiragana	*z*	Katakana	*z*	Kanji	*z*
1	20	0.25	20	0.2	18	-0.4	20	0.15	9	-4.25	0	-2.77
2	20	0.25	20	0.2	18	-0.4	17	-1.35	11	-3.42	6	-1.66
3	20	0.25	20	0.2	20	0.30	20	0.15	20	0.33	10	-0.92
4	20	0.25	20	0.2	20	0.30	20	0.15	20	0.33	3	-2.21
5	20	0.25	20	0.2	15	-1.5	9	-5.35	9	-4.25	1	-2.59
6	20	0.25	20	0.2	10	-3.4	20	0.15	17	-0.92	0	-2.77
Average	19.9		19.9		19.2		19.7		19.2		14.9	
SD	0.4		0.5		2.7		2		2.4		5.4	

Number of stimuli = 20 Words
SD= Standard Deviation

fMRI procedure

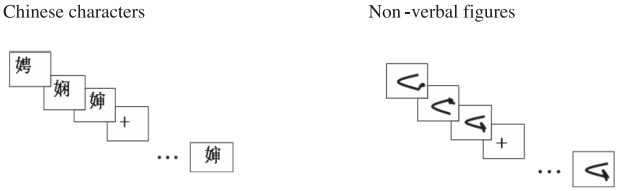
Cerebral activity was measured by fMRI using blood oxygen level-dependent contrast.

Design of the task

To examine the visual information processing of Japanese individuals with developmental dyslexia, two types of visual stimuli were used in the task with which the readers were not familiar, ie, slightly altered modern Chinese characters and non-verbal figures. Slightly altered Chinese characters that are not used in the Japanese written language were used instead of Chinese characters that are regularly used in Japan.

A recognition task was used: visual stimuli were presented on a screen. The first three visual stimuli in a series were presented consecutively for three seconds each. The readers were instructed beforehand to remember the stimuli and to judge whether the fourth stimulus was identical with the first, second or third stimulus, and to notify the examiner of their judgment by pressing a button.

A) Examples of stimuli used in the present study



B) Block design

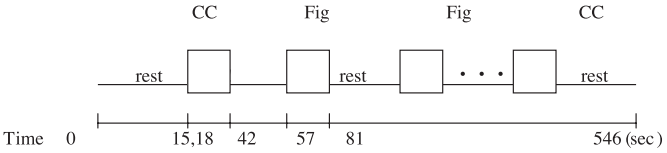


Fig 1 Examples of stimuli used in the experiment (A) and the block design of the study (B).

A) Examples of visual stimuli in a series used in the task. fMRI scanning was performed while the readers performed the task. In each series, three visual stimuli with slight differences among them, were successively presented. Each of the first three visual stimuli was shown for three seconds, with an interstimulus interval. After the third stimulus was shown, a sign, "+", was presented for 12 seconds. The readers was instructed beforehand to keep the three stimuli in his/her memory. Then, a fourth visual stimulus was shown and the readers was asked whether this stimulus was identical with the first, second or third stimulus. The time allowed for judgment was three seconds.

B) Block design of the study.

rest: The readers was instructed beforehand to stare at the "+" sign on the screen during "rest" between stimuli, and was given no tasks.

CC: A series of stimuli composed of slightly altered Chinese characters.

Fig: A series of stimuli composed of figures.

A series of visual stimuli consisting of either (a) slightly altered Chinese characters or (b) non-verbal figures was presented to the readers as a block as shown above in A). A total of seven blocks were presented. Each of the first 3 visual stimuli in a series was presented for three seconds. The first "rest" lasted for 18 seconds to allow stabilization of the magnetic field.

….. : Repetition of five blocks.

Two kinds of stimulation [(a) Chinese characters and (b) figures] were randomly presented.

Image analysis

The fMRI data were analyzed using SPM2 (Wellcome Department of cognitive Neurology, University College London.). One-sample t-test was performed among all readers in both group (ie, the readers in both the dyslexia and control groups) to examine the common brain region used to memorize the altered novel Chinese characters and non-verbal figures. Two -sample t-tests were conducted to explore the group difference in the two memory tasks.

Table 3. Characteristics of the dyslexia group and control group

Variable	dyslexia (n=6)		control (n=6)		
	Mean	*SD*	*Mean*	*SD*	*P*
Age	19.3	8.2	19.3	7.5	n.s.
IQ-test(WISC-III)					
Full-scale	91.6	6.16	96.1	4.78	n.s.
Verbal	100	5.2	98.2	5.9	n.s.
Performance	83.8	6.3	94.1	5	p<0.05
RCPM	30.2	1.86	35.5	0.373	p<0.01
ROCFT	33.5, 16.6, 161. 06,	2.21, 5.55.	36, 28, 28.1.	0, 4.02, 3.47.	p<0.05, p<0.05, p<0.05

WISC-III=Wechsler Intelligence Scale for Children-III
RCPM=Raven's Coloured Progressive Matrices
ROCFT=Rey-Osterrieth Complex Figure Test
SD=Standard Deviation
The values of ROCFT for copy, immediately after, and delay are shown.
n.s., not significant

Using the extracted value of each ROI, we performed voxel correlational analysis (a significant difference analysis) between the readers' performance and the magnitude of the activation within the ROIs in each region.

Results

The characteristics of the readers in the dyslexia and control groups are summarized in Table 3.

However, the performance IQ scores of the five developmental dyslexic readers were within -1 SD of the mean value in the control group; therefore, the performance IQ scores of the developmental dyslexia were within the normal range except reader 2 (Table 1). Table 4 shows the rate of correct answers in the task and the reaction time of the dyslexia and control groups. There were no significant differences in the rate of correct answers (p=0.39 for slightly altered Chinese characters and p=0.06 for non-verbal figures), nor the reaction time (p=1.0 for both simplified Chinese characters and non-verbal figures) between the dyslexia and control groups.

During the task with altered Chinese characters, significant activation was found in the bilateral superior frontal gyri, bilateral middle frontal gyri, bilateral inferior frontal gyri, left precentral gyrus, bilateral postcentral gyri, bilateral superior parietal gyri, bilateral inferior parietal gyri, right middle temporal gyrus, Heschl's transverse gyri in the right hemisphere, bilateral cuneus, bilateral fusiform gyri, bilateral cingulate gyri, bilateral middle occipital gyri, and bilateral inferior occipital gyri among all readers. In group comparison, the left supramarginal gyrus was solely found to be significant in the dyslexia group compared to the control group (Fig 2).

Fig 2 fMRI activation map of a readers in the dyslexia group upon performing the task with slightly altered Chinese characters.
In the dyslexia group, significant activation was found in the left supramarginal gyrus.

The control group showed no significant activation compared to the dyslexia group.

Table 4 Numbers and rates of correct answers during the task and reaction times

		Accuracy (percent correct)				Reaction time(sec)			
		Mean	SD	*z*	*p*	Mean	SD	*z*	*p*
Chinese stimuli									
	Control	6.3 (90)	0.47	-.258	n.s	1.5	0.81	-.160	n.s
	Dyslexia	5.3(75.7)	0.74	-.258	n.s	1.6	0.41	-.160	n.s
Non-verbal figures stimuli									
	Control	6 (85.7)	0.18	-.383	n.s	1.55	0.31	-.1	n.s
	Dyslexia	5 (71.4)	0.41	-.383	n.s	1.5	0.44	-.1	n.s

*n.s : not significant.

During the task with non-verbal figures, blood flow was increased in the left superior frontal gyrus, bilateral middle frontal gyri, bilateral inferior frontal gyri, bilateral precentral gyri, right inferior parietal gyrus, right middle temporal gyrus, right parahippocampal gyrus, bilateral cuneus, bilateral precuneus, bilateral lingual gyri, bilateral fusiform gyri, bilateral middle occipital gyri, and right inferior occipital gyrus among all readers. There were no significant differences in the activation patterns between the two groups.

In ROI analysis, significant activation was found in the left supramarginal gyrus in the dyslexia group, to compare with the control group. No other activation was found between groups.

Discussion

Numerous studies on the working memory of developmental dyslexic readers have been conducted. In the majority of the studies, disorders in the phonological loop were found if expressed according to Baddely's Model (Jorm1983, Baddely, 1986, Eisenmajer et al. 2005). In contrast, no differences in ability were found between normal and developmental dyslexic children in studies in which attention was directed to a visual sketch pad (Snowling, 1991, McDougall et al. 1994). In the present study, the score on the immediate reproduction task of the Rey-Osterrieth Complex Figure Test was significantly lower in the dyslexia group than in the control group (Table 1). This suggests that the degree of activation of the brain in the Dyslexia group was lower than that in the control group during working memory tasks using visual stimuli. However, there were no differences in the activation level of working memory-related brain regions between the two groups. This is one reason why we used a task that was easier than the Rey-Osterrieth Complex Figure Test. In the task involving slightly altered Chinese characters, the left supramarginal gyrus was significantly activated in the dyslexia group but not in the control group, which was further supported by ROI analysis. This region is considered to be important for transforming visually presented words into phonetic syllables. It was also reported that blood flow in this region increases during tasks requiring mapping ability of sounds and letters (Clarke et al. 1999). Livingstone et al.(1991)compared dyslexia with a control group, and reported that the left supramarginal gyrus was significantly less active in the dyslexia group contrary to the results of the present study. As to the reason why the left supramarginal gyrus was activated in the present study, it is important to note that the readers had already learned regularly-used Chinese characters. Although the readers did not know the altered Chinese characters and non-verbal figures, they were familiar with some of the components of the slightly altered Chinese characters. Consequently, the readers could have remembered the stimuli during the task by transforming them to spoken words. There is a possibility that the dyslexia group adopted a tactic of combining letters and sounds during the working memory task using simplified Chinese characters. If this was the case, it is not surprising that the left supramarginal gyrus was significantly activated in the dyslexia group in the present study, whereas this cerebral region was not activated in the dyslexia group in previous studies. The control group, on the other hand, did not need to transform stimuli to spoken words. Even if they had transformed stimuli to spoken words, the degree of activation in the supramarginal gyrus was probably not large enough to influence blood flow. That the supramarginal gyrus was not so activated in the control group compared with the dyslexia group may be explained as follows. The present study was designed so that the two groups accomplished identical tasks. For this purpose, the degree of difficulty of the task was adjusted so that the developmental dyslexia subjects could answer correctly in spite of impaired visual information processing. During visual memory tasks, the level of brain activation was reported to increase as the degree of difficulty of the tasks increased. The degree of difficulty of a task is considered to depend not on the degree of difficulty in temporal integration of information, but on the complexity of the task itself (Horwitz et al. 1999). Although the degree of difficulty of the task was adjusted in this study, it is possible that the task was more difficult for the developmental dyslexia group who had impaired visual information processing than for the control group. Accordingly, the dyslexia group may have required more intense brain activity during the working memory task using simplified Chinese characters than did the control group, and as a result, a significant difference in the activity level in the supramarginal gyrus was found between the two groups.

Whereas the presence of a common biological basis has been suggested for the occurrence of developmental dyslexia among different cultures (Eden and Moats 2002), a diversity of developmental dyslexia was reported among different languages and cultures (Siok et al. 2004). In the present study, the only region that was activated in the dyslexia group but not in the control group during the two tasks was the left supramarginal gyrus. The results obtained in the present study are nearly in accordance with those of PET studies on developmental dyslexic readers performed in Italy, France, and England (Paulesu et al. 2001). In other words, a part of the cerebral region that is functionally impaired in someone with dyslexia who speaks Japanese is similar to that in a dyslexic person who speaks alphabetic languages.

In conclusion, the results of this study suggest that the cerebral dysfunction in developmental dyslexia results from the same biological disorder irrespective of the written language used by individual dyslexic people. In individuals living in countries using alphabetic languages,

the left supramarginal gyrus is considered to be a region that is important for transforming visually-presented letters to syllables. It has also been reported to be the region where blood flow increases in brain activation tests during tasks requiring mapping of sounds and letters (Clarke et al.1999). It has been reported that acquired brain-damaged patients with lesions in the left supramarginal gyrus, showed phonological disorders such as conduction aphasia and phonemic paraphasia (Bishop et al. 1990). These reports suggest that the supramarginal gyrus is involved in phonological manipulation whatever the type of writing system. The original purpose of this study was to find the cerebral regions that are activated during visual working memory tasks using slightly altered Chinese characters and non-verbal figures with which the readers were not familiar. Unexpectedly, our results showed that the dyslexia group probably adopted a tactic of transforming visual stimuli to syllables in the working memory task with slightly altered Chinese characters and as a result the cerebral region related to syllables was activated. As is well known, it is more efficient to remember alphabetic names and telephone numbers after changing them to syllables than to remember them directly as visual codes: registration of visual memory is improved by vocal sound processing (Craik et al. 1975). Compared with the control group, the dyslexia group had a significantly lower score on the Rey-Osterrieth Complex Figure Test. In other words, it seems to be possible that developmental dyslexic children and adults supplemented their insufficient memory with syllables as a clue during the task with slightly altered Chinese characters, parts of which could be converted to spoken words.

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The Dyslexia Guild: Assessment Practising Certificate - Route 2

Margaret Rooms

Route 2 for the Assessment Practising Certificate is open to applicants who do not hold one of the approved qualifications for either route 1 or 3. It is intended to recognise prior experience or learning (APL/APE). It is a useful route for applicants who trained in assessment and dyslexia many years ago, who have maintained CPD over those years and are fully up to date with current tests and regulations, but who have not formally updated their qualifications. Effectively, what route 2 does is to look closely at the competences in assessment of the applicant rather than just at the qualifications. However, this is a route for people whose qualifications are out of date, NOT for people without the training or qualifications at all. The Dyslexia Guild is now ready to receive applications via this route and is following the guidelines set out by the SpLD Working Group 2005/DfES Guidelines.

The application form is available on the Dyslexia Action website (www.dyslexiaaction.org.uk) together with all necessary log proformas and checklists. This article is intended to give the outline details.

Applicants via Route 2 should include:

1. A personal statement supporting the application
2. A full CV
3. Copies of certificates of relevant qualifications detailed on CV
4. Evidence of current practical application and skills in diagnostic assessment and reporting
5. A statement of support from two relevant professionals with recognised standing and experience in the area of assessment
6. A signed statement that the applicant agrees to work within the current legislation and guidance relating to SpLD
7. A signed statement that the applicant has read the Dyslexia Guild's Code of Practice and agrees to abide by it.

A personal statement supporting the application

This should review the applicant's current responsibilities for assessment for SpLD and specify the assessment materials which the applicant currently uses and is familiar with.

A full CV

This should give details of all relevant qualifications and experience eg PGCE, as well as training and experience **within the past five years** which was directly relevant to SpLD assessment.

It is particularly important to note that **training must have included the use of psychometric tests** to be considered acceptable.

Copies of certificates of relevant qualifications detailed on CV

If a certificate has been lost you will need to get a copy or proof from the awarding body.

Evidence of current practical application and skills in diagnostic assessment and reporting

This evidence must demonstrate:

- The ability to administer, score and interpret cognitive and attainment tests, including standardised tests
- The ability to make appropriate recommendations based on the assessment
- The ability to write a report on assessment which is appropriate for purpose.

This evidence should relate to **three separate diagnostic assessments**. The assessments should demonstrate a breadth of assessment practice across different age groups and different patterns of ability and difficulty. Records relating to these assessments should include:

- A Log relating to each of the 3 assessments demonstrating the ability to plan an assessment, liaise with others as appropriate and to select appropriate assessment materials
- The three Diagnostic Assessment reports relating to the logs showing the ability to present a professional report; score tests accurately; interpret data from tests used; give an overview of the pupils'/students' strengths and weaknesses; suggest relevant support for learning
- Video/dvd evidence of one of the 3 assessments. The video should be at least one hour long. Supporting score sheets and records of observations should also be included.

A statement of support from two relevant professionals with recognised standing and experience in the area of assessment

This could be an Educational Psychologist, Learning Support Manager or SENCo for instance.

A signed statement that the applicant agrees to work within the current legislation and guidance relating to SpLD

This needs to be relevant to the particular phase of education in which the applicant is involved.

A signed statement that the applicant has read the Dyslexia Guild's Code of Practice and agrees to abide by it.

The Code of Practice is available on the Dyslexia Action website.

Application Process

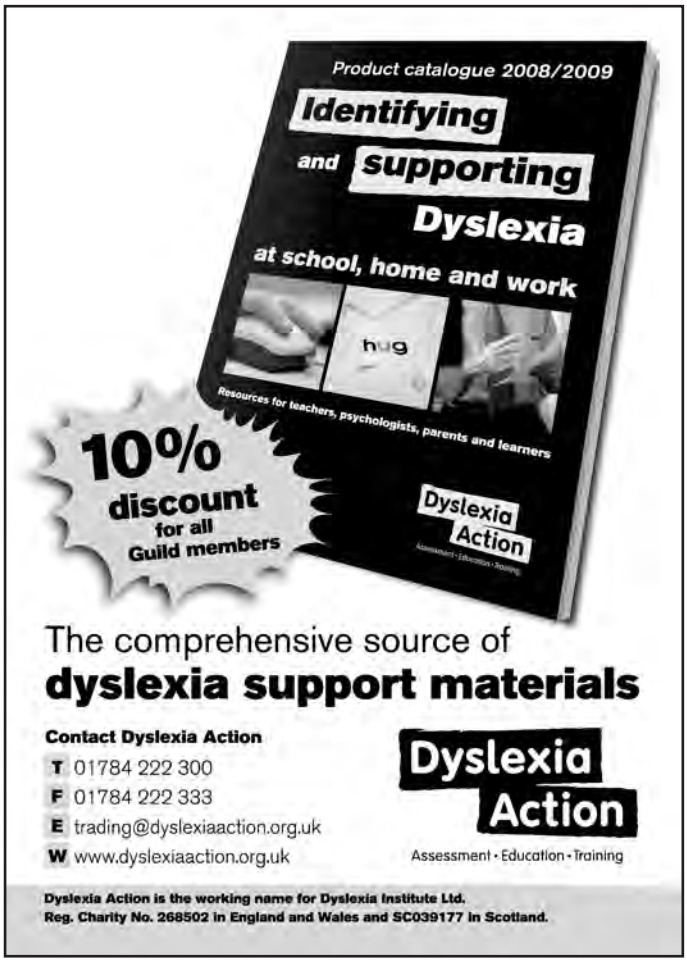
This is a two-step process. Applicants wishing to apply for the Assessment Practising Certificate via route 2 should follow the process outlined above in the first instance. The fee for this step is £175. Once the application has been considered they will be informed if it has been successful. If it has, the applicant is then invited to formally apply for the APC which will licence them to conduct assessments for DSAs. The fee for this step is £80 as for routes 1 and 3.

You do not have to be a member of the Dyslexia Guild to make use of step 1 for route 2 applications. You will need to be a member of the Dyslexia Guild for step 2 – the actual application.

For full details and supporting documents see the Practising certificate section on the website www.dyslexiaaction.org.uk

Margaret Rooms

Margaret Rooms is Head of Educational Development at Dyslexia Action and has overall responsibility for the Dyslexia Guild.



Psych's Corner

Z scores make you snooze?
In a quandary over qualification?
At a standstill with stanines?
Modes giving you the hump?

Send your questions to Mrs Jax de Action, your Assessment Agony Aunt, who will solve all your problems.

Dear Mrs de Action,
I am a very busy SENCO in a Comprehensive and I wonder if you could settle a dispute for me. I don't have time to do the assessments for GCSE Access Arrangements myself. A friend has told me that at the school she works in the Head Teacher has said that the JCQ has stated that anyone he personally chooses can do it, even if they do not have Qualified Teacher Status or *anything*. My friend says I should ask one of the TAs to do it. I am quite tempted. I do have a very experienced TA who knows the children well and regularly carries out tests on them. Would she be suitable? Could you advise?

Yours
Mrs H Bee

Dear Mrs Bee,
Oh dear! Your friend's Head Teacher is going to find himself in a mess if he doesn't peruse the JCQ guidelines more carefully! He has so far interpreted the rules in a very cavalier manner I am afraid, AND, he should note that there is going to be an increase in the amount of monitoring and inspection carried out in schools by JCQ!

Let's clarify the JCQ guidelines for 2009.(www.jcq.org.uk) *On page 30 it* ***does*** *say* 'The head of centre is responsible for the quality of the access arrangements process within his or her centre, as he or she would be for the delivery of the curriculum and the appointment of teaching staff'. *On page 31 it also uses terms like 'Heads might wish…' and 'Heads may wish…'rather than 'Heads* ***must****…'.I guess it is this terminology that has led your friend's Head to take the position he has. He would however have been well advised to take heed of all the other guidance on page 31 which sets out in detail what would be expected to be the skills and knowledge of someone carrying out these assessments, and also refers to the list of acceptable qualifications, still available from JCQ as a guide, though no longer being updated or mandatory.*

One thing your friend says is quite correct. You do ***not*** *have to have QTS, or a post graduate qualification, but, if you haven't, it is even more important that you have a qualification (such as CPT3A) which fulfils all the criteria listed on p31. Do you know what qualifications your TA has? Are you quite certain your Teaching Assistant understands 'the concepts of validity and reliability: standard deviations' etc...And 'has experience of the objective administration of tests of cognitive ability…'? If they have got a qualification of the calibre of CPT3A then you can be certain of this – but if they haven't, it is* ***not likely to be the case.***

Best wishes
Jax

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THE DYSLEXIA GUILD

2, Grosvenor Gardens, London, SW1W 0DH

Book Review

Getting to Grips with Word Problems

By Colin Gallows and illustrated by Robyn

Publisher: QEd Publications
ISBN: 978-1-898873-33-4
Price: £12.95

This book is a collection of more than a hundred photocopiable problem solving worksheets that will be a welcome resource to any teacher of mathematics at Key Stage 2 and beyond.

Many learners, particularly those who have dyslexia, have difficulty reading a problem, deciding which information is relevant to the solution and then which operation to apply. These sheets are well structured with the problem clearly set out and a series of bullet points to help focus the learner on the information they need to discover. Learners are led to consider how to use this information and then to estimate their answer. There is room on the worksheet to calculate an answer and very importantly to consider how to check it.

Mathematical areas covered are decimals, percentages and fractions; money; mean, median, mode and range; averages and measurement.

The book starts out very gently with simple addition and subtraction problems containing only relevant information. Insecure learners will welcome the focus on what they need to discover, as well as the choice of operation.

Decimals, percentages and fractions are some of the more difficult concepts to understand and link. These links are well illustrated in words, pictorially and on a number line. Nothing is left to chance as the proportions are illustrated on both circles and rectangles.

The sections on money and averages are in formats that would not insult older pupils or adults.

The measurement sheets contain more information than previous sheets and will require more input and explanation by the teacher.

Busy teachers will welcome the blank problem templates at the end of the book, which have different degrees of support for the learner. An excellent resource for producing your own work sheets.

I think this book will be a useful addition for any maths teacher who works with learners of all ages from Key Stage 2. It will assist many learners in doing as the title suggests - getting to grips with word problems!
Pat Dixon

Pat Dixon is a teacher with Dyslexia Action

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