

# Report of the Enterprise and Learning Committee

## Interim Report of the Dyslexia Rapporteur Group

### 1. Introduction

In its inaugural meeting of 11 July 2007<sup>1</sup>, the Enterprise and Learning Committee resolved to establish a rapporteur group to consider approaches to the treatment of dyslexia in Wales. The membership of the group is: Alun Cairns AM; Jeff Cuthbert AM; Janet Ryder AM and Kirsty Williams AM.

In its first informal meeting on 19 July 2007, the Dyslexia Rapporteur Group agreed the following Terms of Reference:

To consider established, innovative and emerging approaches to the treatment of dyslexia, and to submit a report and recommendations on its findings to the Enterprise and Learning Committee by the end of the autumn term 2007.

The group has met on five occasions between August and October, taking evidence at informal meetings from four organisations and undertaking two external visits. The group has met with:

Michael Davies, The Welsh Dyslexia Project  
Jennifer Owen-Adams and Dr Ruth Gwernan Jones, British Dyslexia Association Cymru  
Jacqui Brett and Dr Peter Harris, The Raviv Method  
Jane Owens, Dyslexia Action Cymru

In addition, the group visited the Cardiff Dore Centre, meeting with Scott Quinnell, Nigel Maris and Bryan Allan.

The group also undertook a visit to north-east Wales where they visited:

David B Jones; Carol Newsam– Deeside College  
Roy Fielding– British Dyslexics  
Sue Bell Jones and a team of specialist dyslexia teachers – Ysgol Bryn Coch

Whilst in North Wales, the group also received a demonstration of Fast ForWord®, an IT solution based on a computer game format. The presentation was given by John Kerins (Practitioner) and Professor Ian Crease (Professor of Neuroscience, Rutgers University, New Jersey, USA).

During Dyslexia Awareness Week<sup>2</sup>, the Enterprise and Learning Committee heard evidence<sup>3</sup> from:

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<sup>1</sup> Enterprise and Learning Committee, Record of Proceedings, 11 July 2007, <http://www.assemblywales.org/bus-home/bus-committees/bus-committees-third-assem/bus-committees-third-els-home/bus-committees-third-els-agendas.htm?act=dis&id=55646&ds=7/2007>.

<sup>2</sup> 5<sup>th</sup> to 11<sup>th</sup> November 2007

Ann Cooke, Dyslexia Unit, Bangor University  
Professor Angela Fawcett, The Centre for Child Research, Swansea  
University  
Professor David Reynolds, University of Plymouth

## 2. Emerging Issues

### 2.1 Defining Dyslexia

One of the first issues to emerge during the group's evidence gathering was the lack of a standard definition of dyslexia. Most agree that dyslexia concerns reading, writing and spelling difficulties; some would emphasise that these arise because of short-term memory deficiencies; others that it was due to poor phonological awareness; some identified sensory deficit or cerebellar deficit; and some felt strongly that dyslexia was not a disease requiring treatment. The group found that assessment and testing is different throughout Wales. There was agreement that dyslexia is a syndrome not a single disability.

A substantial number of local authorities in Wales use the definition of dyslexia provided by the British Psychological Society:

Dyslexia is evident when accurate and fluent word reading and/or spelling develops very incompletely or with great difficulty. This focuses on literacy learning at the 'word level' and implies that the problem is severe and persistent despite appropriate learning opportunities. It provides the basis for a staged process of assessment through teaching. [British Psychological Society 1999 and updated 2005]

The British Dyslexia Association provides the following definition, which is also widely used:

Dyslexia is a combination of abilities and difficulties that affect the learning process in one or more of reading, spelling and writing. It is a persistent condition. Accompanying weaknesses may be identified in areas of speed of processing, short-term memory, organisation, sequencing, spoken language and motor skills. There may be difficulties with auditory and / or visual perception. It is particularly related to mastering and using written language, which may include alphabetic, numeric and musical notation.

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<sup>3</sup> Enterprise and Learning Committee, Record of Proceedings, 7 November 2007, <http://www.assemblywales.org/bus-home/bus-committees/bus-committees-third-assem/bus-committees-third-els-home/bus-committees-third-els-agendas.htm?act=dis&id=65365&ds=11/2007>.

The UK Government's Department for Children, School and Families use the following descriptor for dyslexia:

Pupils with dyslexia may learn readily in some areas of the curriculum but have a marked and persistent difficulty in acquiring accuracy or fluency in learning to read, write and spell. Pupils may have poor reading comprehension, handwriting and punctuation. They may also have difficulties in concentration and organisation and in remembering sequences of words. They may mispronounce common words or reverse letters and sounds in words.

The group also heard evidence, for example from the British Dyslexia Association, that a standard definition of dyslexia would not reflect the different individual experiences of dyslexia.

### **Recommendation 1**

The group recommends that a standard definition of dyslexia is agreed by the Welsh Assembly Government and the local authorities in Wales in order to ensure a greater consistency across Wales in the screening, assessment and provision of local authority funded services for dyslexia.

## **2.2 Importance of Early Identification**

Everyone who spoke to the Rapporteur group emphasised the importance and benefits of early identification of reading difficulties and possible indications of dyslexia in young school pupils. There were slightly varying views on the exact age at which children could be tested but there seemed to be general agreement that infant school teachers were usually capable of identifying the pupils in their Year One classes (age 6) who were having greater difficulty than their peers in learning basic reading, spelling and writing skills. The teacher's diagnosis can be confirmed subsequently by screening tests.

The group heard conflicting views of the benefits of universal screening.

The Welsh Dyslexia Project (WDP), and others, argued that there is no need for universal formal screening for dyslexia at an early age but that it is sufficient to administer a dyslexia screening test only to those children who have been identified by their teacher as having difficulties. The Members heard evidence from WDP that the screening tests would only give an indication of dyslexia and would not provide a formal diagnosis of dyslexia but that a formal diagnosis was not necessary at this stage. The Committee heard

views that, in cases where the screening test confirmed the teacher's initial assessment, additional support could be provided in the school setting and some argued that in many cases additional support is sufficient to address the difficulties.

The group was told that only a small number of pupils have more serious symptoms associated with severe dyslexia. It is these children who benefit from a formal assessment by an educational psychologist however concerns were expressed, backed up by anecdotal evidence, about the long waiting time to see an educational psychologist.

Deeside Further Education College uses the students' application forms, specially trained tutors and skills software packages to identify students with possible literacy and numeracy difficulties who might benefit from additional support. The college places great emphasis on taking a holistic view of the individual student, identifying any specific difficulties that the student may be experiencing and providing additional support that is tailored to meet the needs of the individual student.

### **Recommendation 2**

The group heard substantial evidence that the timing of intervention seems to be crucial with early intervention more successful in bringing at risk children up to the level of their peers.

The group therefore recommends that dyslexia screening tests in both English and Welsh are available to any child, at age 6 or 7, who is identified as having greater reading, spelling or writing difficulties compared to their peers. This must be quickly followed by additional support and appropriate intervention for those children who are identified as being at risk of dyslexia by the screening tests.

### **2.3 Welsh Medium Resources for People with Dyslexia**

The group discovered that there is a lack of research, evidence and support for dyslexics whose first language is Welsh. Whilst most who work with people with dyslexia recognise the special challenges of acquiring English language skills, Welsh is different in that it is phonetic. The Welsh Dyslexia Project has developed a Welsh screening test using £60,000 funding from the Welsh Assembly Government. The University of Bangor specialises in Welsh-medium teaching for dyslexics for example members of the unit developed *O Gam I Gam* and *Camu 'Mlaen*.

Teachers spoke with the group about the need for a Welsh reading test and for an expressive and receptive vocabulary standardised test in Welsh. The

group feels strongly that screening and assessment should be available bilingually.

### **Recommendation 3**

The Rapporteur group strongly recommends that screening, assessment and support for dyslexia should be available bilingually and that the Welsh Assembly Government should make additional resources available for this purpose.

## **2.4 Data on Pupils with Dyslexia**

The group heard that boys tend to suffer from dyslexia more than girls and there is ample evidence that genetics influence who will develop dyslexia. Hereditary factors can be traced in about 50 per cent of cases. The condition affects about 1 in 10 of the population with around 1 in 4 of these severely affected, but all cases are individual. Dyslexia can be identified in children by 7 years of age, but with more tools identification might be possible by the age of 4. Extra support is given to children with a reading age 2 years behind their chronological age; most children respond well to support. There are concerns regarding discrimination against children with low IQ, who would not be classified as dyslexic, but as having learning difficulties. Co-morbidity is common, that is dyslexics are often dyspraxic also or may suffer from dyscalculia, dysgraphia or ADHD. The group felt that children should be “triaged” to ensure their needs are properly met.

Government statistics, based on the Pupil Level Annual Schools Census (PLASC) database, are currently unable to identify those children with dyslexia separately from those children with other learning difficulties. New categories and definitions are due to be introduced in the next annual data collection but dyslexia is still not included as a discrete category.

### **Recommendation 4**

The Rapporteur group recommends that accurate official information should be collected by the Welsh Assembly Government on the prevalence of dyslexia in school children including data on the characteristics of those with dyslexia and data on the length of waiting times for individual children to have an appointment with an educational psychologist.

## 2.5 Training of one specialist teacher in each school

The group heard substantial criticism from several witnesses of the level of specialist training in dealing with dyslexia that is routinely incorporated into Initial Teacher Training (ITT) courses for example that dyslexia related teacher training modules are optional rather than mandatory modules in ITT courses.

The group heard strong evidence from several witnesses of the benefits of having a trained specialist teacher in every school. In particular, the British Dyslexia Association (BDA) campaigns to have a specialist dyslexia teacher in every school, trained to postgraduate diploma level.

The BDA also run *The Dyslexia Friendly Schools Campaign*. As a result of funding by the Welsh Assembly Government, the first fully bilingual edition of the *Achieving Dyslexia Friendly Schools Information Pack* was launched in May 2006. Flintshire LEA has recently been accredited as the first Dyslexia Friendly LEA in Wales. Swansea LEA also has a Dyslexia Friendly Schools initiative.

The Dyslexia Friendly Schools Initiative places great emphasis on a whole school approach to dyslexia which is driven by specialist trained teachers.

### Recommendation 5

The group was very impressed by the whole school approach of the dyslexia friendly schools initiative and concluded that a pupil centred approach has many benefits.

The Rapporteur group recommends that evaluation is undertaken of the Dyslexia Friendly Schools Initiative.

## 2.6 Independent Evaluation of Non Conventional Support for People with Dyslexia

In her written evidence to the Enterprise and Learning Committee, Professor Fawcett said “Dyslexia is one of the most controversial areas of education, not least because of the burning commitment of many dyslexia activists, but also because of its genuinely interdisciplinary and multi-goal nature”<sup>4</sup>. The group has been surprised by the amount of contradictory evidence presented and by the strength of opinion on all sides of the argument for traditional and innovative interventions.

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<sup>4</sup> Enterprise and Learning Committee, 7 November 2007, <http://www.assemblywales.org/bus-home/bus-committees/bus-committees-third-assem/bus-committees-third-els-home/bus-committees-third-els-agendas.htm?act=dis&id=63637&ds=11/2007>.

Further research, funded by an independent body, is urgently needed to establish who benefits most from different types of non-conventional support<sup>5</sup> for example the Dore programme, the Raviv Method, Brain Gym and tinted lenses. The research must be conducted rigorously as a controlled study with clear measures of short term and long term outcomes, with a control group and ideally a double blind placebo model. Moral issues around the use of a control group must be addressed, possibly by the use of a delayed cross-over intervention. The parameters of such research and the use of appropriate benchmarking were discussed in detail by Professor Fawcett and Professor Reynolds in the Committee meeting on 7 November 2007<sup>6</sup>.

Parents and individuals with dyslexia are faced with a wide range of treatments, some of which are perceived as expensive. There is a clear need for independent evaluation to help those individuals seeking assistance make informed choices as to which treatment(s) may be most effective for them. Those offering assistance to people with dyslexia told the Rapporteur group that they would welcome, and support, independent research to evaluate their programmes and methods.

The independent research could investigate the effects, especially the long term effects of:

- movement / balance based programmes such as The Dore Programme, Brain Gym
- multisensory for example The Raviv Method
- Phonic based reading schemes such as Toe by Toe
- use of tinted lenses and coloured overlays
- IT based programmes for example FastForWord

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<sup>5</sup> As opposed to conventional phonics based approaches.

<sup>6</sup> Enterprise and Learning Committee, Record of Proceedings, 7 November 2007, <http://www.assemblywales.org/bus-home/bus-committees/bus-committees-third-assem/bus-committees-third-els-home/bus-committees-third-els-agendas.htm?act=dis&id=65365&ds=11/2007>.

## **Recommendation 6**

The Rapporteur group recommends that independent research is commissioned into different types of programmes in order to better identify which people are likely to benefit most from different types of assistance.

However the Rapporteur Group wishes to undertake more work looking at comparisons between the different types of programmes before making final recommendations to the Enterprise and Learning Committee on which programmes should be included in the independent evaluation study.

### **3 Areas for Further Work**

- Meetings with pupils, parents of pupils and other people with dyslexia to give evidence for consideration by Members and to investigate further the role of parents in supporting children with dyslexia. These meetings are currently being planned for the spring term 2008.
- Visit the Dyslexia Unit at Bangor University. (A visit is currently planned for January 2008)
- Compare the similarities and differences between different programmes and methods for assisting people with dyslexia before making detailed recommendations on an independent evaluation study to the Welsh Assembly Government.
- Speak to teaching professionals including the General Teaching Council for Wales and those providing initial teacher training about both initial training and continuing professional development of teachers to support pupils of all ages with reading, spelling and writing difficulties.
- Investigate the policies and examples of good practice which have proved to be effective in other countries in assisting people with dyslexia.
- Hear evidence from individuals whose dyslexia has not been a barrier to successful achievement and find out what assistance helped them in managing their dyslexia. Consider methods of publicising the success of strong role models.
- Investigate further the training available to learning assistants to support children with dyslexia and the potential role of learning assistants and school nurses in the early identification of dyslexia, including the administration of dyslexia screening tests.
- Consider the role of school Governors and the guidance available to them.



## **Annex A**

### **Approaches to the treatment of Dyslexia**

#### **The Welsh Dyslexia Project**

The Welsh Dyslexia Project is a registered charity, which was set up five years ago, to offer advice and support to individuals with dyslexia, parents, carers, professionals and businesses in Wales. It specialises in the development of bilingual resources.

#### **British Dyslexia Association (BDA) Cymru**

The BDA is a registered charity and a UK wide umbrella organisation. BDA Cymru was launched on 30 September 2004 by Jane Davidson, the then Minister for Education and Lifelong Learning. It campaigns for the early identification of dyslexia. Its main thrust is to secure a specialist teacher in every school. It provides a free helpline service and also works to reduce the number of dyslexic young people in the criminal justice system and to enable dyslexic people to achieve their potential in the work place.

#### **Dyslexia Action Cymru**

Dyslexia Action Cymru, formerly the Dyslexia Institute, is a national charity, which works to train teachers so that children can achieve their full potential. It estimates the cost of providing a qualified teacher in every primary school in Wales at £3 million. It also provides help to parents to interpret reports by educational psychologists. Dyslexia Action provides a diagnostic assessment which examines literacy and numeracy skills and investigates the factors that may be affecting those skills. It focuses on the pattern of strengths and weaknesses usually seen in dyslexia, but also considers the other major specific learning difficulties and other social and environmental factors that can impact on learning. Dyslexia Action then designs and delivers a programme of support that is tailored to an individual's profile of strengths and weaknesses, addressing their specific needs and priorities as identified through assessment.

#### **Flintshire Dyslexia Friendly Schools**

*The Dyslexia Friendly Schools Campaign* is run by the BDA. As a result of funding by the Welsh Assembly Government, the first fully bilingual edition of the *Achieving Dyslexia Friendly Schools Information Pack* was launched in May 2006. Flintshire LEA has recently been accredited as the first Dyslexia Friendly LEA in Wales. The schools have provided evidence that they can respond to the difficulties of dyslexic learners: they use best practice; adopt flexible approaches – “if children don't learn the way we teach, we will teach them the way they learn”; set targets, review and monitor progress of all

pupils and intervene when necessary; recognise the importance of emotional intelligence; ensure that social, emotional and intellectual inclusion is a top priority; and are “value added” schools. Believing that one of the best indicators of learners’ future ability to read and write is their phonological awareness at an early age, the teachers work to emphasise the need of a whole school approach to teaching synthetic phonics (sounds of parts of words) in a carefully structured multi-sensory way which links reading and writing when word building.

The teachers told the group that dyslexic pupils need lots of opportunities to read from a wide range of carefully structured reading scheme books at an appropriate level on a daily basis. They further emphasised the need for pupils’ exposure to other stories and information books to enhance their enthusiasm for reading and writing.

### **British Dyslexics**

British Dyslexics is a national registered independent charity, which is mainly run by dyslexics and began as a self-help group in Bangor University. All of its services, which include advocacy, information packs, screening, and reading support for children and parents using the Toe to Toe method, are provided free of charge.

### **Deeside College – tinted glasses and coloured overlays**

Deeside College provides a comprehensive range of support for students with dyslexia and learning difficulties, which was recognised in its last work-based learning inspection. The college’s Study Skills team supports hundreds of students of varying ages and abilities every year. Many students are referred to the team if they declare that they are dyslexic, or if they struggle with coursework and/or not achieving their potential. The team provide diagnostic assessments to help identify any additional learning needs a student has, including dyslexia. Depending on their individual needs, the student is then offered a range of support, from equipment such as computers and spell checkers to personal support in groups or one-to-one. The college has specific expertise in providing tinted glasses and coloured overlays which ameliorate symptoms of visual distress and visual perception distortion, which are associated with dyslexia and reading difficulties. Professor Stein notes that there have been no properly controlled trials of coloured filters, especially the propensity for using yellow and blue filters, but that there is too much anecdotal evidence of very great improvements in reading to ignore this approach.

### **The Dore Programme**

The Dore Programme was founded by Wynford Dore in response to the problems experienced by his eldest daughter as a result of severe dyslexia.

He has financed and developed a research programme which has led to the opening of 37 Dore Centres worldwide, including one in Cardiff. Some 30,000 patients are currently being treated using the Dore programme. He believes that restoring the function of the cerebellum can cure dyslexia. Dore's basic premise is to question the function of the cerebellum, which needs to be hard-wired to other neuro functions, which is not the case in dyslexics. Dyslexics are unable to use stored memory in relation to the spelling and sounds of words. Established bodies supporting dyslexics will not endorse the Dore method citing the lack of an independent assessment, costs of treatment, and aggressive marketing, though some recognise that it can help with self-esteem, motivation and motor skills. An important bi-product is that the method helps elite sports people, Scott Quinnell being the well-known example in Wales.

### **The Raviv Method**

The Raviv method originated in Israel and was developed by Nili Raviv. It came to the UK some five or six years ago. It considers dyslexia to be a neurological impairment which can be seen during MRI scans of the brain. Raviv is a formal learning method, which aims to develop the visual, auditory and motor functions of the brain by the formation of new neural pathways. Neurological gaps are bridged and visual memory is trained. It assists the brain to carry out cross-referencing between its right and left sides. In a pilot study conducted at St Josephs RC School in Newport, 80 per cent of children with serious learning difficulties showed significant improvement within three months. Its approach is similar to Dore, but costs considerably less. Like Dore it has not been independently assessed.

### **Fast ForWord ®**

Based on analysis of fMRI (functional magnetic resonance imaging) brain scans, which show that dyslexic brains function differently during the reading process, Fast ForWord seeks - via IT based audio listening - to develop neurons in the cortex, thus aiding dyslexics to develop and decode speech – “wiring the brain for academic gain”. Fast ForWord thus works on the hypothesis that people with dyslexia have difficulty processing the temporal characteristics of rapidly changing acoustic signals, including speech sounds and non-verbal auditory signals. This leads to weaknesses in developing phonemic awareness and applying phonic reading strategies. The method has been used to help 1 million children in the United States including all 7 year olds, whether dyslexic or otherwise, in Philadelphia. The method has been independently assessed and can also be used for autistic children and elderly patients experiencing cognitive decline.

**Academics who provided evidence to the Enterprise and Learning Committee on 7 November 2007**

**Professor David Reynolds** is Professor of Education, University of Plymouth. He was previously Professor of Leadership and School Effectiveness at the University of Exeter (2000-2006).

**Professor Angela Fawcett** is Director of the Centre for Child Research, Swansea University. As editor of the *Dyslexia* journal, she was caught up in the controversy on research supporting the Dore method, originally published in 2003, with a follow up in 2007. She refers to this in her written evidence.

**Ann Cooke** is Director of Dyslexia Modules, Dyslexia Unit, School of Psychology, Bangor University. She is the author of *Tackling Dyslexia* an internationally renowned study.

**Professor John Stein** is Professor of Physiology at the University of Oxford and Fellow of Magdalene College. He provided written evidence only to the Committee meeting, 7 November 2007, as he is unable to attend the Committee.