



Cynulliad National
Cenedlaethol Assembly for
Cymru Wales

Enterprise and Learning Committee

Support for People with Dyslexia in Wales

July 2008

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Chair's Foreword

When the Enterprise and Learning Committee was established a year ago, Members committed to break new ground in planning and undertaking their work. We wished to place the citizens of Wales at the heart of our cross-cutting, non-partisan scrutiny and work in more open and flexible ways in examining evidence. This report is our first attempt at achieving that.

Last July the Committee elected a Rapporteur Group to undertake an inquiry into the support for people with dyslexia in Wales. Four Members were elected to carry out the work: Alun Cairns; Jeff Cuthbert; Janet Ryder; and Kirsty Williams. The meetings and visits listed in Annex A are testimony to their commitment.

The report contains ten recommendations. If they were to be accepted and implemented they would make a significant difference to children and adults in Wales who are coping with reading, spelling and writing difficulties. The report notes the need for a standard definition to achieve greater consistency in screening and assessment, and especially the need to assess children as early as Year 2 and to provide additional support. The Welsh Assembly Government should collect detailed and accurate data 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. The group has made recommendations with regard to training teachers and other school staff and about ensuring that screening, assessment and support for dyslexia should be

equally available in both Welsh and English and that the Welsh Assembly Government should make additional resources available to meet the demand. The group learnt about a number of programmes and interventions which had clearly benefited those trying to cope with dyslexia and recommends that an independent research project should be commissioned to evaluate them. In particular, the group recommends that the Government commissions a pilot study of *Fast ForWord*®.

I wish to thank most warmly those who contributed to the work of the group and to this report – all those individuals and organisations who took the time to give us the benefit of their expertise and advice, and to those who discussed their experiences with the group so openly. I also wish to express appreciation of the support the Committee received from the Committee Specialist and clerking team.

I anticipate that our report will be warmly received and widely read. I commend it to the Assembly and to the Minister for Children, Education, Lifelong Learning and Skills. I look forward to receiving her response in due course.

A handwritten signature in black ink, appearing to read 'Gareth Jones', written in a cursive style.

Gareth Jones AM

Chair, Enterprise and Learning Committee

July 2008

The Dyslexia Rapporteur Group



Members of the Dyslexia Rapporteur Group from left to right: Janet Ryder AM, Alun Cairns AM, Jeff Cuthbert AM, and Kirsty Williams AM

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1. Introduction

In its inaugural meeting of 11 July 2007, the Enterprise and Learning Committee resolved to establish a cross party rapporteur group to consider approaches to the treatment of dyslexia in Wales. The membership of the group was: 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 had 18 meetings and visits between August 2007 and April 2008, which included four informal meetings in Cardiff Bay with dyslexia support professionals; nine external visits, for example to a Dyslexia Friendly School, and two meetings with adults, children with dyslexia and their parents.

During Dyslexia Awareness Week¹ (November 2007), the Enterprise and Learning Committee heard evidence on dyslexia support from Professor David Reynolds, University of Plymouth, Professor Angela Fawcett, Director of the Centre for Child Research, Swansea University and Ann Cooke, Dyslexia Unit, Bangor University.²

¹ Dyslexia Awareness Week: 5th to 11th November 2007

² Enterprise and Learning Committee meeting, Record of Proceedings, 7 November 2007, <http://www.assemblywales.org/bus-home/bus-committees/bus-committees-third1/bus-committees-third-els-home/bus-committees-third-els-agendas.htm?act=dis&id=65365&ds=11/2007>

The Committee published an interim report on 12 December. The report was laid before the Assembly and recommended that the group continue its work and bring forward a final report when appropriate.

A list of the activities undertaken by the Dyslexia Rapporteur group is attached in Annex A.

The Dyslexia Rapporteur Group would like to thank everyone who sent information to them about dyslexia as well as the many people who made time to meet the Rapporteur Group in person.

2. Defining dyslexia

The word 'dyslexia' comes from the Greek 'dys-', meaning difficulty with, and '-lexia', meaning words or language.³

One of the first issues to emerge during the group's evidence gathering was the lack of a standard definition of dyslexia. Most witnesses agreed that dyslexia concerns reading, writing and spelling difficulties; some witnesses believe that these difficulties arise because of short-term memory deficiencies; others that it was due to poor phonological awareness; some identified sensory deficit; others a cerebellar deficit; and some believe that dyslexia is not a disease requiring treatment. The group heard evidence that the approach and criteria for assessment and testing varies in different parts of Wales.

Scott Quinnell

The Rapporteur Group met the ex-Wales rugby player, Scott Quinnell, who described his personal experience of dyslexia.

Scott⁴ has also been quoted as telling the pupils of Ysgol Penweddig:

"I used to hate school. I could not understand what teachers were trying to teach me. Teachers called me thick and stupid because they did not understand."

³ Department for Children, Schools and Families, A Framework for Understanding Dyslexia, <http://publications.teachernet.gov.uk/eOrderingDownload/AFDD2MIG236.pdf>

⁴ BBC news website, <http://news.bbc.co.uk/1/hi/wales/mid/6136182.stm> and the Dyslexia Adults Link website <http://www.dyslexia-adults.com/a65.html>

"They would say I wasn't trying, but I just could not take in the information and retain it, and I couldn't understand why I could not remember."

Quinnell recalled how he sat at the back of the classroom at school, unable to understand what was being written on the blackboard. He added that on occasions it would reduce him to tears.

A parent who wrote to the Dyslexia Rapporteur Group recalled how she had described the difficulties experienced by her child both in English and in Welsh to an educational psychologist:

"I told her he mixed up p and q, b and d and g.

He read in a 'clunky' way.

He was ok in Welsh but the problems really manifested themselves in English. (He uses u instead of y in some words and will leave out any double letters. However, most spelling in Welsh is easy so it's not such a problem. Also for reading all the letters sound the same every time which of course is not true for English.) His reading of small words has always been much poorer than that of longer words, I suspect as smaller words can be confused with many others (at could be a, an, as etc) but a long word is more recognisable.

Also I told her that he had just taken the lead role in . . . and he had memorised all the songs perfectly but he couldn't read those same words on

paper.

The teacher said he missed out words when copying and got his numbers the wrong way round. She also said it was bothering him and that he was getting increasingly reticent about answering.”

In his evidence to the Enterprise and Learning Committee,⁵ Professor David Reynolds helped to quantify the number of people with dyslexia:

We are talking about a prevalence figure for dyslexia of the order of 10 per cent of the population, although, obviously, it would depend on exactly what the definition is.

Difficulties around Defining Dyslexia

In her evidence to the Enterprise and Learning Committee,⁶ Ann Cooke of the Dyslexia Unit, Bangor University, described some of the difficulties around agreeing on a single definition:

Ms Cooke: Providing a definition of dyslexia is difficult because, as I said in my paper, it depends who you are providing it for. You can try to provide a scientific element to the definition, you can say what kinds of difficulties the child faces, and you can say what kinds of additional difficulties there are—what we might call soft signs. If you put everything in, it will be pages long. However, if you try to pare it down, that may be difficult, because the person who is reading it will say, 'That doesn't help me'.

⁵ Enterprise and Learning Committee meeting, Record of Proceedings, 7 November 2007, <http://www.assemblywales.org/bus-home/bus-committees/bus-committees-third1/bus-committees-third-els-home/bus-committees-third-els-agendas.htm?act=dis&id=65365&ds=11/2007>

⁶ Enterprise and Learning Committee meeting, Record of Proceedings, 7 November 2007, <http://www.assemblywales.org/bus-home/bus-committees/bus-committees-third1/bus-committees-third-els-home/bus-committees-third-els-agendas.htm?act=dis&id=65365&ds=11/2007>

She also cautioned against definitions that resulted in delays for those needing assistance. Professor Fawcett agreed and added:

On definition, as Ann says, it depends what you are looking for. If you are looking for something that is a shorthand for the teacher to identify a problem and to provide proactive support, that is probably different from the type of definition that you would have, say, for self-help—for parents and children to have an understanding. Teachers will probably define it in terms of literacy, although it is much broader than that.⁷

Some Definitions of Dyslexia

The Department for Children, Schools and Families

The Department for Children, Schools and Families describe dyslexia as a specific learning difficulty (SpLD) together with dyscalculia and dyspraxia which are under the umbrella of Cognition and Learning Needs, one of the four areas of need identified in the Special Educational Needs (SEN) Code of Practice, published in 2001.⁸

Although there is no specific definition for dyslexia, the following descriptor is used by the Department for Children, Schools and Families:

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

⁷ Enterprise and Learning Committee meeting, Record of Proceedings, 7 November 2007, <http://www.assemblywales.org/bus-home/bus-committees/bus-committees-third1/bus-committees-third-els-home/bus-committees-third-els-agendas.htm?act=dis&id=65365&ds=11/2007>

⁸ Teachernet website, UK SEN Code of Practice, <http://www.teachernet.gov.uk/doc/3724/SENCodeOfPractice.pdf>

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 British Psychological Society's Definition

The British Psychological Society (BPS) agreed a definition in 1999,⁹ which they then updated in 2005. This definition is used by several local authorities in Wales:

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; updated 2005]

The British Dyslexia Association's definition

The British Dyslexia Association's definition is also used by some local authorities:

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

⁹ British Psychological Society, *Dyslexia, Literacy and Psychological Assessment*, <http://www.bps.org.uk/publications/newsletters-and-periodicals/decp-dyslexia.cfm>

mastering and using written language, which may include alphabetic, numeric and musical notation.

Dyslexia can occur despite normal intellectual ability and teaching. It is constitutional in origin, part of one's make-up and independent of socio-economic or language background.

Differences in Local Authority Areas

The Dyslexia Rapporteur group heard that the lack of a universally agreed “working definition” of dyslexia causes problems, for example differences in the definition used by local authorities in Wales results in differences in the levels of services provided, particularly for school children, in different local authority areas.

The Dyslexia Unit at Bangor University provides support services for three local authorities. During their visit, the Rapporteur Group heard evidence from parents of children with dyslexia that they had experienced differences in some of the local authority areas, for example different eligibility criteria for support, varying levels of support, and different cut-off criteria which results in support being withdrawn.

In a different part of Wales, a parent of a child with dyslexia identified a number of significant problems from his own personal experience. In his experience:

“Local Education Authorities

- adopt an unwritten “blanket refusal” policy to minimise the number of children that have Statutory Statements

- do not adhere to some of the time scales set down in the SEN Code in order to delay or frustrate the making of Statutory Statements e.g. Deciding whether to carry out a Statutory Assessment and carrying out the Assessment.
- refuse to accept the findings and recommendations of reports prepared by private Educational Psychologists
- refuse to accept the benefit of specialist tuition provided by Dyslexia Action
- respond inadequately to parental requests and information regarding children with dyslexic issues
- each LEA decides its own policies regarding scores which qualify for Statutory Statements and other additional teaching help. The LEAs do not have policies consistent with each other making the process a “postcode lottery”.

The Dyslexia Rapporteur Group is aware from the evidence that they heard that it is not easy to agree a single definition of dyslexia. Witnesses said that different definitions may be needed for different purposes and also that a short definition can be too general to be helpful in all cases.

However the Rapporteur Group also heard evidence that the lack of a single definition results in significant inconsistencies in the levels of services provided by local authorities. It causes confusion for people who are trying to find out if they do have dyslexia themselves. It also causes anxiety and stress for parents trying to find out if their child’s difficulties are caused by dyslexia

and makes it more difficult for them to identify exactly what support their child may be entitled to.

Recommendation 1

The Enterprise and Learning Committee 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.

3. Theories about 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'. The rapporteur group was surprised by the amount of contradictory evidence presented and by the strength of opinion on all sides of the argument for traditional and more recent interventions.

Some of the main theories to explain the cause of dyslexia were summarised for the Enterprise and Learning Committee in Professor Fawcett's paper.¹⁰

Extracts are reproduced here:

A Phonological Deficit

This is the most developed and supported of the theories of dyslexia.

There is unanimous agreement that problems with phonology are

¹⁰ Enterprise and Learning Committee, 7 November 2007, Paper by Professor Angela Fawcett, EL(3) 09-07 (p2): <http://www.assemblywales.org/bus-home/bus-committees/bus-committees-third1/bus-committees-third-els-home/bus-committees-third-els-agendas.htm?act=dis&id=63637&ds=11/2007>

associated with dyslexia, however, it is becoming clear that phonology may not be the only problem. Phonology is a skill underlying the analysis of both spoken and written language; breaking down words into their parts, or segmenting them, so first knowing that 'cat' is made up of the onset and rime c-at, and then recognising the individual sounds (phonemes) are c-a-t. Phonological awareness is also used in hearing a sound (a phoneme) and translating it into a letter which represents it (a grapheme).¹¹

A Sensory Deficit.

This theory is broader than the phonological deficit, because it can potentially account for both visual and auditory deficits in dyslexia. The auditory 'rapid processing deficit' was introduced by Tallal in the US, whereas the visual magnocellular deficit comes from Stein and his group in Oxford.

Tallal and her colleagues (1993) have claimed that, like language disordered children, children with dyslexia take longer to process sounds which change rapidly. This is tested with high and low tones, or the sounds ba and da, which are only different in the first few milliseconds.

Children with dyslexia can't tell the difference between the sounds if they are presented close together, and this means that they are likely to have problems with phonological awareness.

Visual magnocellular problems seem to give a good account of the symptoms of blurred vision and letters that move around, which some

¹¹ Enterprise and Learning Committee, 7 November 2007, Paper by Professor Angela Fawcett, EL(3) 09-07 (p2): <http://www.assemblywales.org/bus-home/bus-committees/bus-committees-third1/bus-committees-third-els-home/bus-committees-third-els-agendas.htm?act=dis&id=63637&ds=11/2007>

dyslexic children report. However, it has now become clear that the magnocellular system is not to blame for visual persistence (Stein, 2000). A magnocellular deficit would affect most types of rapid processing, which can be difficult for dyslexic children because it is more demanding for anyone to process material quickly.¹²

Speed of processing

Wolf and Bowers (1999) identified two separate sources of difficulty in dyslexia, phonology and processing speed. Children with both speed and phonology problems have the most severe problems.

There is evidence of speed problems for dyslexic children in almost all areas, 'Rapid Automated Naming' tests (RAN - Denckla and Rudel, 1976), identify speed deficits in simply saying the names on a page full of simple pictures (or colours). Problems are found even when language is not involved, so children with dyslexia are slower to simply press a button when choosing between a high and a low tone (Nicolson and Fawcett, 1994), with brain waves showing that this is caused by slowed central auditory information processing, (Fawcett et al., 1993). In educational terms, this means that children with dyslexia need longer to read a word that is familiar to them (van der Leij and van Daal, 1999) and this may lead to a strategy of trying to process large chunks of letters in reading, rather than breaking the word down phonologically in order to

¹² Enterprise and Learning Committee, 7 November 2007, Paper by Professor Angela Fawcett, **EL(3) 09-07 (p2)**: <http://www.assemblywales.org/bus-home/bus-committees/bus-committees-third1/bus-committees-third-els-home/bus-committees-third-els-agendas.htm?act=dis&id=63637&ds=11/2007>

read unfamiliar words. This approach makes heavy demands on working memory, and limits the new words which can be tackled.¹³

A Cerebellar Deficit

In the early 1990s, the Sheffield group identified severe problems with a wide range of skills, including balance (Fawcett and Nicolson, 1992; Nicolson and Fawcett, 1990); motor skill (Fawcett and Nicolson, 1995b); phonological skill (Fawcett and Nicolson, 1995a) and rapid processing (Fawcett and Nicolson, 1994,b). Many of these skills were not language based, suggesting that the phonological deficit could not explain all the problems in dyslexia. Most of the children showed problems 'across the board', rather than with different profiles suggesting sub-types (Nicolson and Fawcett, 1995a; Nicolson and Fawcett, 1995b) supporting the dyslexic automatism deficit hypothesis (Nicolson and Fawcett, 1990), that dyslexic children have problems in fluency for any skill that should become automatic with extensive practice. This hypothesis could explain dyslexic symptoms in phonological skills, in reading, and in other skills.

Problems in motor skill and automatism point to the cerebellum, an area at the base of the brain known to be associated with motor skill.

There is now clear evidence that the cerebellum has links not only to motor areas, but also Broca's language area, and is involved in both language and cognitive skill, including specific involvement in reading (Fulbright et al., 1999), Children with dyslexia showed a range of classic cerebellar signs (Fawcett and Nicolson, 1999; Fawcett, Nicolson and

¹³ Enterprise and Learning Committee, 7 November 2007, Paper by Professor Angela Fawcett, **EL(3) 09-07 (p2)**: <http://www.assemblywales.org/bus-home/bus-committees/bus-committees-third1/bus-committees-third-els-home/bus-committees-third-els-agendas.htm?act=dis&id=63637&ds=11/2007>

Dean, 1996) with problems in muscle tone and balance in 80-90% of the children tested. Direct evidence of cerebellar deficit came from a PET scan study which found that dyslexic adults did not show the normal pattern of activation when performing a motor sequence learning task, with only 10-20% the expected level of activation compared with controls.¹⁴

4. Early Identification of Difficulties with Reading, Writing and Spelling

Without exception, 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. Their views on the minimum age at which children could be tested varied between four and seven years but there seemed to be some agreement that primary school teachers are usually capable of identifying the pupils who were having greater difficulty than their peers in learning basic reading, spelling and writing skills in their Year One classes (age 6). It was agreed that the teacher's diagnosis can be confirmed subsequently by screening tests.

Professor Fawcett: We need to look for children before they fail and provide some support early on. Therefore, age is a critical factor. We need to look at the six and seven-year-olds, and provide support for children who are failing early on. I can speak authoritatively on this because of my work on early screening and intervention, and also because I am the parent of a dyslexic boy who was diagnosed twenty-

¹⁴ Enterprise and Learning Committee, 7 November 2007, Paper by Professor Angela Fawcett, **EL(3) 09-07 (p2)**: <http://www.assemblywales.org/bus-home/bus-committees/bus-committees-third1/bus-committees-third-els-home/bus-committees-third-els-agendas.htm?act=dis&id=63637&ds=11/2007>

five years ago at the age of five. I therefore know that the outcomes can be excellent if support is provided early enough.¹⁵

Most witnesses also observed that the costs of early screening and support would be easily off-set by the cost savings made in lower levels of support needed in later years.

The group heard some conflicting views of the benefits of universal screening; Some contributors, including a member of the Scottish Dyslexia Cross Party Group, supported a universal screening programme. Their concern is that without universal screening some children with dyslexia will be missed and that the current system relies on all teachers being able to correctly identify children who are starting to show early signs of difficulties.

However the majority of witnesses, for example the Welsh Dyslexia Project (WDP), 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 that the screening tests would only give an indication of dyslexia and would not provide a formal diagnosis of dyslexia. Many witnesses believe that a formal diagnosis is often 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. Several witnesses said that, in many cases, additional support is sufficient to address the difficulties at this stage.

¹⁵ Enterprise and Learning Committee meeting, Record of Proceedings, 7 November 2007, <http://www.assemblywales.org/bus-home/bus-committees/bus-committees-third1/bus-committees-third-els-home/bus-committees-third-els-agendas.htm?act=dis&id=65365&ds=11/2007>

The group was told that only a small proportion of pupils (estimated at approximately 2 per cent) have more serious symptoms associated with more 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.

The Dyslexia Rapporteur Group heard details of many examples of the frustrations experienced in getting an accurate and timely diagnosis.

The following example was sent in by the parent of a child with dyslexia:

“My son was first diagnosed with dyslexia at the age of 6.5 years old. We had to get him tested privately because the school refused to believe that there was a problem. We felt sad that our son had this problem but relieved to think that he would now receive the appropriate help in school, however, we have had to fight the educational service to get any support.”

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 Committee therefore recommends that dyslexia screening tests in both English and Welsh are available to all children at the beginning of Year 2 who are identified as having greater reading, spelling or writing difficulties compared to their peers.

This must be followed by additional support and appropriate intervention by the end of the Christmas Term in Year 2 for those children who are identified as being at risk of dyslexia by the screening tests.

5. Accurate Statistics on Dyslexia

The group heard anecdotal evidence that boys tend to suffer from dyslexia more than girls and there is 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.

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 also dyspraxic 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.

The anecdotal information about a long wait for appointments with educational psychologists contradicted information provided by several local authorities.

The following extract is very representative of many of the responses from local authorities:

When a school has identified a child with dyslexia they will put in place their own interventions to address the difficulties. If a child does not make progress they will refer to either the educational psychologist or the specialist teacher for further assessment and advice. The specialist teacher is usually able to see the child within half a term of receiving the referral.

The Educational Psychology Service operate a time allocation system where schools are allocated a specific number of visits per term. The school will then prioritise the pupils to be seen. The educational psychologist will see pupils as soon as they are prioritised by the school so no waiting list exists.

Recommendation 3

The Committee 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.

6. A Trained Specialist Teacher in Every School / Dyslexia Friendly Schools

The Dyslexia Rapporteur Group heard from both the parents of children with dyslexia and the children themselves of frustrations, problems and successes experienced by children with dyslexia in school.

One parent described some of the difficulties:

“There seems to be a huge gap in teachers’ knowledge & understanding of dyslexia. My daughter was lucky enough to be diagnosed in year 2 (i was a very persistent parent) but since then every teacher has chastised my daughter for not learning her weekly spelling list. despite my trying to explain to them, they do not realise that she could spend hours trying to learn spellings & still not be able to recall them. this is just one tiny example of the lack of understanding - educators must accept that there is a real issue for some children. even new qualifies teachers seem to have little knowledge of spld's.”

Another parent wrote to the Rapporteur Group summarising some of the problems that he had experienced whilst trying to support children with dyslexia and made some suggestions for improvements.

“I perceive the main problems with the current system to be as follows:

Primary Schools

- do not routinely test children at an early age to ascertain whether there is a problem
- teachers are not aware of dyslexic symptoms and issues
- SEN teachers are ordinary teachers and lack training in specialist dyslexic teaching methods
- Schools are suspected of being complicit with LEAs in not identifying dyslexia and hiding dyslexic issues from parents because of resource implications.”

His suggestions to address some of these problems are:

- “training is required to improve identification and understanding of dyslexia by teachers
- more teachers with specialist dyslexic teaching required”

and . . .

- “allow parents as of right to pay for private specialist dyslexic tuition delivered in state schools.”

Several witnesses also spoke of the substantial benefits of having a trained specialist teacher in every school.

Ms Cooke: The third point is that we need to train teachers, not just for specialist work, but so that, in every school, there is someone—and with fluctuating teacher numbers it might be difficult—who has been trained

on a dyslexia course. I do not mean just an INSET course, where teachers go perhaps for an hour a week, or three hours. I mean a training course where teachers are expected to do some teaching under supervision, and who can then take that knowledge back to their schools, help their colleagues to devise ways of working with children who are difficult to teach, and so pass their knowledge on.¹⁶

The British Dyslexia Association (BDA) campaigns to have a specialist dyslexia teacher in every school, trained to postgraduate diploma level.

The *Dyslexia Friendly School Initiative* grew out of awareness that there were a growing number of referrals for support at School Action Plus of the *Special Educational Needs Code of Practice for Wales*¹⁷ and for formal assessment, which could be partly attributed to a lack of expertise in schools. The Initiative places great emphasis on a whole school approach to dyslexia which is driven by specialist trained teachers. Flintshire and Swansea are both Dyslexia Friendly Local Education Authorities (LEAs).

As a result of support and funding by the Welsh Assembly Government, the first fully bilingual edition of the *Achieving Dyslexia Friendly Schools Information Pack* was launched in May 2006.¹⁸ The pack aims to remove the barriers to learning that can get in the way of children with special educational needs (SEN) making the most of their time at school.

Dyslexia Action Cymru supports the Dyslexia Friendly Schools initiative. They believe that a dyslexia friendly classroom should accommodate different learning

¹⁶ Enterprise and Learning Committee meeting, Record of Proceedings, 7 November 2007, <http://www.assemblywales.org/bus-home/bus-committees/bus-committees-third1/bus-committees-third-els-home/bus-committees-third-els-agendas.htm?act=dis&id=65365&ds=11/2007>

¹⁷ Special Educational Needs Code of Practice for Wales, Welsh Assembly Government website, http://new.wales.gov.uk/topics/educationandskills/publications/codes_of_practice/special_ed_cop_04?lang=en

¹⁸ *Achieving Dyslexia Friendly Schools Resource Pack*, British Dyslexia Association website, <http://www.bdadyslexia.org.uk/dfs.html>

styles and that teachers should be aware of specific learning *differences* (rather than specific learning *difficulties*).

However, Professor David Reynolds cautioned:

There has not been enough [. . .] study of dyslexia-friendly schools, and not clear enough definitions of what they do, which is not to be critical of anybody in the field. There is not enough understanding about how you do it, and not enough evidence that, if you do it, you get big bangs for bucks.¹⁹

There also needs to be consistency of training and resources for SENCOs.²⁰ The Rapporteur Group heard anecdotal evidence that the levels of support provided by SENCOs could vary for a number of reasons including the amount of time that a SENCO has available to work with an individual child and the level of expertise and interest in dyslexia of individual SENCOs.

The importance of the early years' curriculum and The Foundation Phase approach was welcomed in principle by several witnesses. It was emphasised again that early support for children who are having difficulties with, for example, basic vowel sounds, simple sequencing, for example, days of the week etc can be very effective.

Project Llwyddiant

Funded through the European Social Fund, *Project Llwyddiant* looked at new ways of involving young people with dyslexia and other specific learning difficulties who are at risk of dropping out of the education system. The British

¹⁹ Enterprise and Learning Committee meeting, Record of Proceedings, 7 November 2007, <http://www.assemblywales.org/bus-home/bus-committees/bus-committees-third1/bus-committees-third-els-home/bus-committees-third-els-agendas.htm?act=dis&id=65365&ds=11/2007>

²⁰ Special Education Needs Co-ordinator

Dyslexia Association, with other partners, obtained £1.17 million of Objective 1 funding for the project.

Teacher training

One of the Members of the Dyslexia Rapporteur Group clearly summarised the importance of including awareness training of dyslexia in Initial Teacher Training courses and also commented on the important role of classroom assistants.

Janet Ryder: Alongside that, we have to look at teaching in general, and not just by teachers, but by classrooms assistants. I think that we need to look in particular at teacher training courses and how we train teachers for primary school and early years education, although we need to look at secondary school education as well. We need to consider whether we train teachers sufficiently to identify the individual learning needs of their pupils. . . . I think that we have to go back to look at how we are training teachers so that every teacher, particularly during those early years and by the time the child is six or seven years old, can assess an individual child and say, 'This is the additional learning need that this child has', whatever it may be. There might be a myriad of answers and interventions, but we need to equip teachers, and, in particular, classroom assistants, who play such a large part in the foundation phase.²¹

²¹ Enterprise and Learning Committee meeting, Record of Proceedings, 7 November 2007, <http://www.assemblywales.org/bus-home/bus-committees/bus-committees-third1/bus-committees-third-els-home/bus-committees-third-els-agendas.htm?act=dis&id=65365&ds=11/2007>

Recommendation 4

The Committee recommends that the Welsh Assembly Government, the Higher Education Funding Council for Wales and the individual institutions reassess the content of Initial Teacher Training courses to significantly improve Trainee Teachers understanding of additional learning needs and this should apply to all initial teacher training courses.

All trainee teachers (not just for those intending to teach in infant schools) should receive increased mandatory training to enable them to identify children who have additional learning needs.

All trainee teachers should also receive increased mandatory training in the provision of support for children who are achieving below the average for their cohort.

Recommendation 5

The Committee also recommends that the Welsh Assembly Government reassess the training given to classroom assistants, particularly as part of the Foundation Phase, for young children who are having additional learning needs

Ensuring that teaching the skills to support children with additional learning needs becomes a mandatory part of both the initial training for classroom assistants and a compulsory part of their continuous professional development to ensure that classroom assistants are equipped with the skills to provide this support effectively.

Recommendation 6

The Committee recommends that the Welsh Assembly Government reviews the training on support for dyslexia available to SENCOs and funds additional provision as required to ensure a more even level of expertise amongst all SENCOs.

Recommendation 7

The Committee recommends that the Welsh Assembly Government commissions research to consider the feasibility and potential costs of training a specialist teacher in every school to post-graduate level (level 4) in support of children with dyslexia.

7. Welsh Medium Resources

The Rapporteur Group heard evidence from several witnesses about the lack of research, evidence and support for people with dyslexia and whose first language is Welsh. Teachers spoke with the group about the need for a Welsh reading test and for an expressive and receptive vocabulary standardised test in Welsh.

Ms Cooke: We live in a bilingual society. In my part of the world, the education system is thoroughly bilingual; most children start to read in Welsh before they start to read in English. We need research in a Welsh context about the effects of how dyslexia interacts with different kinds of language systems. We have it in Czech, in Polish, and in German, but

we have not really done it in Welsh. There is very little research on how Welsh children learn to read, and the effect of Welsh teaching on how they then learn English, or the other way around if that is what happens—the way that English teaching impacts on Welsh. There are huge areas there that we need to know about, for all children, but particularly for these who find literacy difficult. Therefore, that is my second point—we need research into bilingualism and dyslexia.²²

Some resources are available: for example the group heard that the Welsh Dyslexia Project has developed both English and Welsh screening tests; the Welsh Assembly Government provided £60,000 funding for this purpose; and 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* but more resources clearly need to be available to meet demand.

In January 2008, the Rapporteur Group visited the Dyslexia Unit in Bangor University and heard presentations about the work of the Unit including the latest research studies involving neurological studies and functional magnetic resonance imaging (fMRI) scanning; the development of a receptive standardised Welsh vocabulary test for children age 7-11 and a test for dyslexia in first-language Welsh children. The Rapporteur Group also heard about the work of the Dyslexia Unit in providing specialist training for teachers; the provision of specialist dyslexia tuition in schools in three Local Authority areas; and the provision of a Welsh language assessment service for children and adults and support including a wide range of Welsh-medium materials.

²² Enterprise and Learning Committee meeting, Record of Proceedings, 7 November 2007, <http://www.assemblywales.org/bus-home/bus-committees/bus-committees-third1/bus-committees-third-els-home/bus-committees-third-els-agendas.htm?act=dis&id=65365&ds=11/2007>



The Vice-Chancellor, Dean, and staff from the Dyslexia Unit in Bangor University meet with Members of the Dyslexia Rapporteur Group.

Recommendation 8

The Committee recommends that screening, assessment and support for dyslexia should be equally available in both Welsh and English and that the Welsh Assembly Government should make additional resources available to meet the demand.

8. Types of Support Available

The Dore programme

The Dyslexia Rapporteur Group visited the Dore Centre in Cardiff Gate in August 2007 and both heard about the Dore Programme and saw practical demonstrations of the posturo-graphy, oculo-motor and dyslexia screening tests that are undertaken in the Centre. A structured individualised exercise programme is designed to minimise or eliminate Cerebellar Deficit Delay. The

exercises are designed to stimulate the cerebellum and are completed at home twice a day. Each exercise session takes approximately 5-10 minutes. Progress is monitored in the Dore Centre every six weeks and the average length of time to complete the full programme is approximately 13 months.

The Dyslexia Rapporteur Group has heard personal testimonies from children, their parents and adults about their experiences of the Dore Programme. In addition to the personal testimonies, Dr Roy Rutherford, Medical Director of Dore, provided examples of research studies undertaken on the Dore Programme including the Balsall Common School Studies (a study of approximately 40 children); and studies undertaken by Local Education Authorities including the Isle of Anglesey and Gwynedd LEAs. Although a number of research projects have been completed and their results published, the staff at the Dore Centre said that they would welcome an independently funded, scientifically robust, evaluation of their Programme, with research undertaken in Wales.

However, on 28 May 2008, Dore announced that the company was going into administration and that joint administrators had been appointed to oversee and manage the affairs, business and property of the Company. Advice and support for existing customers of the Dore programme was provided on the following website: <http://my.dore.co.uk/Default.aspx>. The Dore centres in the United Kingdom are in the process of closing.

The Raviv method

Jacqui Brett and Dr Peter Harris met the Dyslexia Rapporteur Group to provide information on, and demonstrate, the Raviv Method. The Raviv Method is a focused motor sensory programme involving the whole body which is designed to build new neurological connections by guided training and exercising.

The Raviv Method is built around weekly sessions of 50 minutes to one-hour duration with a Raviv practitioner. A complete programme usually takes between 12 and 20 sessions and lasts between 4 and 6 months. The therapy also requires exercises (lasting no more than 25 minutes per day) to be completed daily at home. Examples of the The Raviv Method Daily Practice include: Walking the figure 8, usually focussing on the TV, for 20 minutes and Breathing Exercises for 3 – 5 minutes.²³

Raviv Practitioners would also welcome an independently funded, scientifically robust evaluation of The Raviv Method.

Tinted glasses and overlays

The concept of using tinted lenses and overlays to improve reading was presented by Helen Irlen, a Californian educational psychologist, in 1983. She claimed that 'Scotopic sensitivity syndrome' (SSS) was the cause of dyslexia (and other conditions), due to abnormal retinal sensitivity to very specific wavelengths of light.

²³ The Raviv Method UK website, http://www.thelearningsociety.com/en/index_en.aspx

The condition, also known as the 'Meares–Irlen syndrome' is a condition characterised by symptoms of visual distress and visual perceptual distortion. This includes glare from the page, headaches when reading, sore eyes when reading and print instability. The distortions can include blurring, movement of letters, words doubling, shadowy lines, shapes or colours on the page and flickering.

Further information on the potential impact of coloured lenses and overlays was provided to the Enterprise and Learning Committee in a written paper by Professor John Stein, Oxford University:²⁴

Many dyslexics complain of visual confusions when reading [Stein and Fowler, 1981; Evans, 1996 #273]; the letters appear to blur, move around and change places, or the page glares and gives them a headache. This visual confusion impairs their ability to see the letters properly, hence it may impair their ability to match them with their sounds in order to acquire accurate phonological representations.

(Meares 1980) reported that coloured filters could markedly reduce these visual confusions in some children. This was speedily taken up commercially; there are now several different types of coloured filter for the treatment of reading difficulty on the market (Wilkins and Nimmo Smith 1984; Irlen 1991; Harris and MacRow-Hill 1999). Irlen developed the Irlen coloured overlays and tints to help children who complained of perceptual distortions, visual stress, headaches, glare, and sore, tired eyes. She termed this the 'scotopic sensitivity syndrome' and claimed that her filters reduced crucial lightwave lengths that cause distortions in

²⁴ [Enterprise and Learning Committee, 7 November 2007, Paper by Professor John Stein, EL\(3\) 09-07 \(p4\)](#)

the brain. However independent research has suggested that the benefits claimed were probably mainly due to placebo effects [[Blaskey, 1990 #278] Robinson, 1999 #277].²⁵

A more recent brand of coloured filter ([Wilkins, 1994 #295]) was developed using his “intuitive colorimeter” to help identify more precisely the specific tint that would alleviate ‘cortical hyperexcitability’ that he believes cause visual symptoms in some people ([Wilkins, 1994 #306])

. . . But it is still not clear whether coloured filters really do improve reading significantly or whether they just have a placebo effect.²⁶

Professor Stein then describes his research:

We have found studying children in our dyslexia research clinics in Reading and Oxford that when they are offered a choice of colours, almost invariably they choose only either yellow or blue. We have therefore carried out a randomised placebo controlled trial employing standardised reading measures, using only these two colours.²⁷

And the results:

This double blind randomised control trial confirmed that yellow or blue filters helped children with severe reading difficulties to learn to read significantly better than did a windowed card placebo. . . .

It is important to emphasise that coloured filters will not benefit all backward readers. They only seem to help those who complain of visual reading problems such as letters blurring, glaring, moving around or

²⁵ [Enterprise and Learning Committee, 7 November 2007, Paper by Professor John Stein, EL\(3\) 09-07 \(p4\)](#)

²⁶ [Enterprise and Learning Committee, 7 November 2007, Paper by Professor John Stein, EL\(3\) 09-07 \(p4\)](#)

²⁷ [Enterprise and Learning Committee, 7 November 2007, Paper by Professor John Stein, EL\(3\) 09-07 \(p4\)](#)

mislocating, and who have reduced convergence and accommodation. But we find this to be true of a high proportion of the children we see in our clinics.²⁸

One parent, whose child had benefited from yellow filters, wrote to the Rapporteur Group with details of their experience. The parent also emphasised the importance of early identification of difficulties.

“My daughter has now visited the Dyslexic Research Institute Centre at Oxford University for the second time and they have informed us that there has been an improvement in my daughters reading skills, as a result of her wearing yellow tinted glasses. We are currently waiting for the report from the University. However, it would appear that she has made remarkable progress with her reading, auditory recall and comprehension, however there appeared to be no improvement with her literacy in terms of spelling words.

Reasonably this would suggest that due to the fact that she had a visual impairment for much of the time at Key Stage 1 level, she needs to re learn and spell all the most commonly used words for that stage of her education. I believe she is possibly 2 years behind with her ability to spell.

From our point of view, if we had identified the problem earlier in her education, this matter may not have become so much of a problem.”

However there are also other research studies which suggest that a wider range of coloured lenses / overlays do provide benefits in some cases.

²⁸ [Enterprise and Learning Committee, 7 November 2007, Paper by Professor John Stein, EL\(3\) 09-07 \(p4\)](#)

Two orthoptists contacted the Dyslexia Rapporteur Group separately to suggest that lack of progress with reading and reading fluency can be caused by one or all of the following:

- Problems with ocular motility. . . the child may be in need of Orthoptic Eye Exercises.
- Uncorrected need of glasses.
- If the two above are treated or do not apply and the child continues to complain of reading difficulties Meares Irlen Screening can be tried.

Other comments included:

I am not trying to suggest that all children with literacy difficulties have vision problems but that ideally Orthoptic eye examinations should take place as soon as the literacy difficulties are recognised in school.

Orthoptists with their training and knowledge of the visual processing system are well qualified to recognise these problems but sadly often overlooked.

Deeside College - an “holistic approach”²⁹

The Dyslexia Rapporteur Group visited Deeside College and was impressed by the holistic approach that the college adopts in identifying and supporting individual students who would benefit from additional support (including those students with dyslexia). Information on learners’ individual learning styles is collected from their initial assessment and in conjunction with course teachers. Support is provided through the Study Skills Centre, which is

²⁹ Deeside College website: <http://www.deeside.ac.uk/newdc/home-home.php>

located in a prime position in the centre of the college. Study skills staff work effectively with teachers to ensure that learners receive the support they need to progress on their courses.



Members of the Dyslexia Rapporteur Group visit the Study Skills Centre in Deeside College and meet with the Principal, David B Jones, and Carol Newsam, Independent Living Skills Programme Area Manager

The College has a member of staff who is able to identify and test students who may benefit from coloured lenses. It recommends practical interventions which can assist students, for example printing handouts on coloured or recycled (off-white) paper.

The phonic approach

Several witnesses, for example the British Dyslexia Association, Dyslexia Action, the Dyslexia Unit in Bangor University and British Dyslexics support the phonics approach as a key intervention for people with dyslexia. The Dyslexia Rapporteur Group heard about, and saw, several examples of both

English and Welsh medium phonics resources, for example *Toe by Toe*, *Letters and Sounds*

Ysgol Bryn Coch in Flintshire, the Dyslexia Friendly School visited by the Dyslexia Rapporteur Group, advocated a phonics based approach to help pupils with dyslexia.

Early literacy intervention programmes in England, designed for children who have literacy difficulties, have been phonological based interventions.

Fast ForWord[®]

Fast ForWord[®] is a computer based programme used in schools and with adults, which was devised in America. It consists of a game format, and, according to the learner's results, adapts the difficulty of the tasks that they must complete. It is an intensive approach and can consist of 50-100 minutes a day, for five days a week, over a 4-12 week period (depending on the level of intensity and progress).³⁰

The Department for Children, Schools and Families' Framework for Understanding Dyslexia contains the following information³¹ on *Fast ForWord*[®]

The Fast ForWord language programme:

This is a teaching programme that focuses on helping learners become more fluent at processing rapidly changing sounds. Its underlying hypothesis is that dyslexic learners' brains can be taught to operate

³⁰ Information obtained from the *Fast ForWord* website: <http://www.innovative-therapies.com/>

³¹ Department for Children, Schools and Families' A Framework for Understanding Dyslexia, <http://www.dfes.gov.uk/readwriteplus/understandingdyslexia/approachesprogrammes/physiological/fastforword/>

more like those without dyslexia. The programme offers training designed to help learners hear sounds in words by exaggerating and slowing them down.

Learners undertake computer exercises designed to develop a wide range of critical language skills including phonological and phonemic awareness, fluency, vocabulary, comprehension, decoding, working memory, syntax, grammar and other skills. It is an intensive programme, with learners doing the exercises for 100 minutes a day for four to six weeks. The exercises are presented in the form of computer games that reward learners when they correctly recognise sounds or accurately follow on-screen directions. The exercises are adaptive, becoming more difficult as the learners' listening skills improve.

The Dyslexia Rapporteur Group first saw a demonstration of the *Fast ForWord*® products during a visit to North Wales. It was explained that *Fast ForWord*® products are designed to primarily help people with auditory processing difficulties rather than visual processing difficulties.

The Rapporteur Group also heard Professor Ian Creese, Professor of Neuroscience, Rutgers University, USA,³² describe some of his research into brain plasticity and temporal decoding.

Based on his academic research, Professor Creese explained the neurological differences between a dyslexic reader and a normal reading brain as identified by functional magnetic resonance imaging (fMRI). He also

³² Professor Ian Creese, Professor of Neuroscience, Rutgers University, USA, <http://cmbn.rutgers.edu/research/creese/>

explained that the speed of auditory processing is very important for example in order to differentiate between the sounds of a word, the brain needs to perceive fast sound alterations at the millisecond (one thousandth of a second) time scale. Tiny differences in the time at which the vocal chords start vibrating make the difference between “ba” and “pa” for example.

In April 2008, Members of the Dyslexia Rapporteur Group visited Everett Public Schools in Massachusetts where *Fast ForWord*® products are used in all six public schools in Everett Schools District. Pupils, identified as requiring additional support with reading, use *Fast ForWord*® products for 50 minutes each day in the school setting. Each child accesses the *Fast ForWord*® products through an individual computer in a class of approximately between 20 to 30 children. A support teacher spends some time with each child whilst they are using the products to discuss progress and any difficulties.

The Rapporteur Group were impressed by the *Fast ForWord*® *Progress Tracker* which is an online data analysis and reporting tool that enables teachers to monitor individual, classroom and school performance of students working with *Fast ForWord*® products.



Professor Ian Creese, Professor of Neuroscience, Rutgers University, New Jersey, USA, with a student of an Everett Public School in Massachusetts.

An observational study of the Everett students³³ and their progress whilst using the *Fast ForWord*® products has been undertaken by the Scientific Learning Corporation and the results of the study for 2006-2007 were presented to the Dyslexia Rapporteur Group.³⁴ The 853 students in the study were evaluated using the Massachusetts Comprehensive Assessment System (MCAS) and/or the Gates/MacGinitie Reading Tests (GMRT) both before and after the test.

Results included:

- Of the 765 students evaluated with the Gates-MacGinitie Reading Tests, the average improvement was 22 months in the 10 months pre- and post- tests.

Using the MCAS tests,

³³ Scientific Learning Corporation. (2007). Improved Reading Skills by Students in the Everett Public Schools who used *Fast ForWord*® products, MAPS for Learning, Educator reports.

³⁴ The Everett Schools results are also available at: <http://www.scilearn.com/results/region/northeast/main=everett>

- 32 per cent of students moved up one or more categories. One third of students who were initially at the “Needs Improvement” category moved up to the “Proficient” level.

The Dyslexia Rapporteur Group also visited the Harvard Medical School and heard details of the latest research on brain plasticity from Professor Joseph B. Martin, formerly Dean of Harvard Medical School, and Dr. Nadine Gaab, Assistant Professor, Boston / Harvard Children’s Hospital.

Professor Martin summarised some of the latest scientific research that he has undertaken on neuro-degenerative diseases (sporadic, inherited and progressive) for example Parkinson’s, Alzheimer’s and Huntingdon’s diseases and dementia. He then used fMRI’s images to demonstrate the areas of the brain that are activated by different types of activity, based on the assumption that greater levels of oxygen are released, and are traceable as blood, in the areas of greatest activity. He explained in detail the evidence for brain plasticity, and specifically synaptic plasticity, including the ways in which the brain can repair itself and in particular repair its neurological pathways.

Finally Professor Martin described how the latest scientific research into brain plasticity has practical applications for example for: language and learning; neuro-rehabilitation for example after a stroke; learning a second language and for treatments for addiction.

Dr. Gaab has recently published the results of a brain-imaging study³⁵ which suggests that children with developmental dyslexia struggle with reading

³⁵ October, 2007; Gaab et al; (2007) "Neural correlates of rapid auditory processing are disrupted in children with developmental dyslexia and ameliorated with training: An fMRI study,"; Restorative Neurology and Neuroscience 25, 295-310

because their brains do not process fast-changing sounds properly. Dr. Gaab explained in detail the Rapid Auditory Processing theory. She also described her latest research into the development of language and brain plasticity in children. Dr Gaab is particularly interested in pre-reading age children and the ways in which the brains of proficient readers develop a network of brain connections.

9. The Need for an Independent Evaluation Study

The need for an independent evaluation of at least some, if not all, of the different types of support was strongly advocated by many witnesses who spoke to the Dyslexia Rapporteur Group.

Ms Cooke: As the others have said, we do not know exactly why certain systems work for some children and why they do not work for others.

Dyslexia is a puzzle in that respect.³⁶

The purpose, feasibility and potential cost of an independent evaluation study was discussed in detail by the witnesses to the Enterprise and Learning Committee in November 2007.

Professor Reynolds: The problem, historically, with dyslexia and other learning problems has frankly been one of huge unmet need and an absence of proven scientifically-based treatments. . . Part of the difficulty

³⁶ Enterprise and Learning Committee meeting, Record of Proceedings, 7 November 2007, <http://www.assemblywales.org/bus-home/bus-committees/bus-committees-third1/bus-committees-third-els-home/bus-committees-third-els-agendas.htm?act=dis&id=65365&ds=11/2007>

is that there is an absence of proof of validity of the existing treatments.

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Further:

Professor Reynolds: Therefore, what I recommend we think and talk about today, if you want to, is what a Welsh research programme would look like, which would test out the claims of the different groups in this contested terrain. That would mean that one would probably want to look at the treatments that already exist singly, and then the treatments in some forms of combination. My bet is that, if you combine the treatments, you get an 'interaction effect', to use the jargon—you get more than the sum of the parts. You get more than addition—you get, as it were, a multiplication of effects.³⁸

Professor Reynolds then went onto suggest six treatments that could be included:

...conventional phonics-based interventions; coloured filters; the Dore Programme; other exercise regimes; drug treatments and/or food/vitamin supplements such as the importance of water, fish oils, diet, and single or multi-vitamins.³⁹

Not all of the witnesses agreed with Professor Reynolds' list, however the need for an independent, scientifically structured, research programme was universally agreed. It is essential that any research programme must be well

³⁷ Enterprise and Learning Committee meeting, Record of Proceedings, 7 November 2007, <http://www.assemblywales.org/bus-home/bus-committees/bus-committees-third1/bus-committees-third-els-home/bus-committees-third-els-agendas.htm?act=dis&id=65365&ds=11/2007>

³⁸ Enterprise and Learning Committee meeting, Record of Proceedings, 7 November 2007, <http://www.assemblywales.org/bus-home/bus-committees/bus-committees-third1/bus-committees-third-els-home/bus-committees-third-els-agendas.htm?act=dis&id=65365&ds=11/2007>

³⁹ Enterprise and Learning Committee meeting, Record of Proceedings, 7 November 2007, <http://www.assemblywales.org/bus-home/bus-committees/bus-committees-third1/bus-committees-third-els-home/bus-committees-third-els-agendas.htm?act=dis&id=65365&ds=11/2007>

planned, with early and thorough consideration of ethical issues for example the use of a control group, the testing of drug treatments etc.

Such a research project would place Wales at the forefront of understanding of dyslexia and the efficacy of the different types of support / treatments.

Many of the witnesses, both individuals with dyslexia and organisations / companies providing treatments, would wholeheartedly welcome and support an independent and authoritative evaluation study.

Professor Fawcett: There are major debates in the area about whether you need a randomised control trial with a placebo. . . . We also need to ensure that research is funded by someone who does not have any interest in it. Part of the controversy is that funding is often derived from the people who are proposing the research, which makes it much more difficult to validate. You need someone who has no particular interest in any of the interventions. Therefore, it needs to be fairly and scientifically done, with no hype, which, again, is difficult to achieve. . . . What we need to end up with is a benchmarking system. We need to understand why some children benefit from an intervention and why some children do not. At the end, the Assembly could have a set of different interventions, with what type of child is likely to benefit, and what type of age group is likely to benefit most. There could therefore be a sort of menu for parents to select from, so that it was clear how much each one was likely to cost them and what commitment was likely to be involved. That would be a major step forward.⁴⁰

⁴⁰ Enterprise and Learning Committee meeting, Record of Proceedings, 7 November 2007, <http://www.assemblywales.org/bus-home/bus-committees/bus-committees-third1/bus-committees-third-els-home/bus-committees-third-els-agendas.htm?act=dis&id=65365&ds=11/2007>

The Dyslexia Rapporteur Group was impressed by the dedication and commitment of all the dyslexia professionals who spoke to them and demonstrated their programmes and support for people with dyslexia. All the different types of support that were demonstrated to them had clearly identifiable benefits. The Rapporteur Group was encouraged by the letters, e-mails and personal testimonies from people and parents of children who had benefited from each of the different programmes. They did also understand the frustrations of people and parents who found it hard to know which programmes and methods of support would benefit either themselves or their children most effectively.

Recommendation 9

The Committee recommends that the Welsh Assembly Government commissions an independent research project into different types of programmes in order to better identify which people are likely to benefit most from different types of assistance. This research study must be carefully planned to produce authoritative results and ethical issues given proper consideration. The research project should be developed in conjunction with the Assembly's Enterprise and Learning Committee.

The interventions to be evaluated should include:

- **multisensory / movement based programmes**
- **phonic based reading schemes**

- **use of tinted lenses and coloured overlays (in conjunction with testing by an orthoptist for visual problems).**

If the circumstances for the Dore Programme change and they are able to resume services to new clients, the Dore Programme should be included in the research project.

The Dyslexia Rapporteur Group was particularly impressed by the *Fast ForWord*® computer based products and the experience of these products in the Everett Public Schools for the following reasons:

- a group of around 30 children can each potentially access *Fast ForWord*® products on individual computers in one classroom at the same time. This is an effective and efficient way of providing support to greater numbers of children with dyslexia at the same time in comparison with many other methods,
- one specialist, trained teacher in the classroom is available to check on each child's progress while they are using the *Fast ForWord*® products and to assist with any difficulties,
- each child can access the *Fast ForWord*® software for around 50 to 60 minutes every day in the school environment for five days a week,
- the *Fast ForWord*® products are incremental and increase in difficulty as each child progresses,
- the game format makes the software accessible and maintains the child's interest. The children in the Everett Public Schools told the Rapporteur Group that they enjoyed using the software, and

- the *Fast ForWord*® Tracker provides detailed data so that each child's progress can be carefully monitored.

Recommendation 10

The Committee recommends that the Welsh Assembly Government commissions a separate, statistically robust, pilot study of the *Fast ForWord*® products to independently evaluate the results of this intervention.

10. Summary of Recommendations

Recommendation 1

The Enterprise and Learning Committee 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.

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 Committee therefore recommends that dyslexia screening tests in both English and Welsh are available to all children at the beginning of Year 2 who are identified as having greater reading, spelling or writing difficulties compared to their peers.

This must be followed by additional support and appropriate intervention by the end of the Christmas Term in Year 2 for those children who are identified as being at risk of dyslexia by the screening tests.

Recommendation 3

The Committee 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.

Recommendation 4

The Committee recommends that the Welsh Assembly Government, the Higher Education Funding Council for Wales and the individual institutions reassess the content of Initial Teacher Training courses to significantly improve Trainee Teachers understanding of additional learning needs and this should apply to all initial teacher training courses.

All trainee teachers (not just for those intending to teach in infant schools) should receive increased mandatory training to enable them to identify children who have additional learning needs.

All trainee teachers should also receive increased mandatory training in the provision of basic support for children who are achieving below the average for their cohort.

Recommendation 5

The Committee also recommends that the Welsh Assembly Government, reassess the training given to classroom assistants particularly as part of the Foundation Phase,

Ensuring that teaching the skills to support children with additional learning needs becomes a mandatory part of both the initial training for classroom assistants and a compulsory part of their continuous professional development to ensure that classroom assistants are equipped with the skills to provide this support effectively.

Recommendation 6

The Committee recommends that the Welsh Assembly Government reviews the training on support for dyslexia available to SENCOs and funds additional provision as required to ensure a more even level of expertise amongst all SENCOs.

Recommendation 7

The Committee recommends that the Welsh Assembly Government commissions research to consider the feasibility and potential costs of training a specialist teacher in every school to post-graduate level (level 4) in support of children with dyslexia.

Recommendation 8

The Committee recommends that screening, assessment and support for dyslexia should be equally available in both Welsh and English and that the Welsh Assembly Government should make additional resources available to meet the demand.

Recommendation 9

The Committee recommends that the Welsh Assembly Government commissions an independent research project into different types of programmes in order to better identify which people are likely to benefit most from different types of assistance. This research study must be carefully planned to produce authoritative results and ethical issues given proper consideration. The research project should be developed in conjunction with the Assembly's Enterprise and Learning Committee.

The interventions to be evaluated should include:

- multisensory / movement based programmes
- phonic based reading schemes
- use of tinted lenses and coloured overlays (in conjunction with testing by an orthoptist for visual problems).

If the circumstances for the Dore Programme change and they are able to resume services to new clients, the Dore Programme should be included in the research project.

Recommendation 10

The Committee recommends that the Welsh Assembly Government commissions a separate, statistically robust, pilot study of the *Fast ForWord*® products to independently evaluate the results of this intervention.

Annex A: Activity by the Dyslexia Rapporteur Group

Meetings 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 Owen, Dyslexia Action Cymru,

Huw Roberts, Dyslexia Unit, Bangor University, on secondment to the Welsh Assembly Government,

Two meetings with adults / children with dyslexia and parents of children with dyslexia:

(a) video conference with the National Assembly's visitor centre in Colwyn Bay

(b) meeting in Tŷ Hywel, Cardiff Bay.

Visits to:

The Dore Centre, Cardiff: Nigel Maris, Bryan Allan and Scott Quinnell,

Deeside College: David B Jones, Principal and Carol Newsam, Independent Living Skills Programme Area Manager,

British Dyslexics: Roy Fielding,

Ysgol Bryn Coch, Flintshire, (a Dyslexia Friendly School): Sue Bell Jones, teaching services manager, and a team of specialist dyslexia professionals,

A demonstration of Fast ForWord ®, John Kerins (Neuron Learning) and Professor Ian Creese (Professor of Neuroscience, Rutgers University, New Jersey, USA),

The Dyslexia Unit, Bangor University: Ann Cooke and her staff,

Aberconwy Base for Children with Dyslexia (Janet Ryder undertook this visit on behalf of the Dyslexia Rapporteur Group),

Everett Public Schools, near Boston, Massachusetts: Peggy Blake, Director Everett Public Schools, John Kerins (Neuron Learning) and Professor Ian Creese (Professor of Neuroscience, Rutgers University, New Jersey, USA),

Harvard Medical School, Cambridge, Massachusetts: Dr Joseph Martin (former Dean of Faculty, Board Member of Scientific Learning), Dr Nadine Gaab.

Enterprise and Learning Committee meeting, 7 November 2007

- Professor David Reynolds, University of Plymouth,
- Professor Angela Fawcett, Director of the Centre for Child Research, Swansea University,
- Ann Cooke, Dyslexia Unit, Bangor University,
- Professor John Stein, Oxford University (written evidence only)

Annex B: Useful Websites

Disclaimer: The list is not intended to be a comprehensive list of all dyslexia related websites but just those that arose out of work of group. The National Assembly for Wales does not endorse any individual companies or products.

BrainGym in the United Kingdom <http://www.braingym.org.uk/>

The British Dyslexia Association <http://www.bdadyslexia.org.uk/index.html>

British Dyslexics <http://www.dyslexia.uk.com/index.html>

The Centre for Child Research, Swansea University <http://www.swan.ac.uk/research/centresandinstitutes/CentreforChildResearch/>

Department for Children, Schools and Families
Delivering Skills for Life: The national strategy for improving adult literacy and numeracy skills:
A Framework for Understanding Dyslexia
<http://publications.teachernet.gov.uk/eOrderingDownload/AFDD2MIG236.pdf>

The Dore Programme <http://www.dore.co.uk/>
<http://www.doresport.com/>

Dyslexia Action Cymru <http://www.dyslexiaaction.org.uk/default.aspx>
<http://www.dyslexiaaction.org.uk/Page.aspx?PageId=142>

Dyslexia Research Trust (Professor <http://www.dyslexic.org.uk/>

John Stein)

The <http://www.dyslexia.bangor.ac.uk/>
Dyslexia
Unit,
Bangor
University

Dyslexia <http://www.dyslexia-wales.co.uk/>
Wales

Every Child <http://www.everychildareader.org/>
a Reader

National Enterprise and Learning Committee meeting, 7 November
Assembly for Wales 2007, Support for Dyslexia (Agenda, Papers and Transcript)
<http://www.assemblywales.org/bus-home/bus-committees/bus-committees-third1/bus-committees-third-els-home/bus-committees-third-els-agendas.htm?ds=11%2F2007&submit=Submit>

The Enterprise and Learning Committee's Dyslexia Rapporteur
Group's Interim Report on Dyslexia

<http://www.assemblywales.org/bus-home/bus-guide-docs-pub/bus-business-documents/bus-business-documents-doc-laid/cr-ld6908-e.pdf?langoption=3&ttl=CR-LD6908%20-%20Report%20of%20the%20Enterprise%20and%20Learning%20Committee%20-%20%20Interim%20Report%20of%20the%20Dyslexia%20Rapporteur%20Group>

Neuron <http://www.neuron-learning.co.uk/home.htm>
Learning

(Fast <http://www.scilearn.com/>
ForWord
software)

Scientific
Learning

Wales Audit Report: Good Practice in Special Educational Needs Funding,
Office October 2006
<http://new.wales.gov.uk/docrepos/40382/4038232/403829/4038>

[293/403829/wao-good-prac-special-needs1.pdf?lang=en](https://www.gov.wales/topics/educationandskills/policy_strategy_and_planning/schools/127044211-wag/?lang=en)

Welsh
Assembly
Government

Special Educational Needs Code of Practice for Wales

http://new.wales.gov.uk/topics/educationandskills/policy_strategy_and_planning/schools/127044211-wag/?lang=en

The Welsh
Dyslexia
Project

<http://www.welshdyslexia.info/>

Annex C: Policy in England

In December 2006 the Department for Children, Schools and Families (DCSF) announced that the *Every Child a Reader* initiative will be rolled out nationally, benefiting 30,000 children in England year on year from 2010-11. *Every Child a Reader* is a collaboration between charitable trusts, the business sector and government. The initiative is funding *Reading Recovery teachers* in inner-city schools, to provide intensive help to children most in need.

The roll-out, which begins in September 2008, will be managed by government through the Primary National Strategy, working in partnership with the *Reading Recovery National Network* at the University of London Institute of Education. The charitable funders, who helped set up the programme, will maintain an important role in the programme.

This policy was confirmed in *The Children's Plan, Building Brighter Futures* (page 11),⁴¹ when the Department for Children, Schools and Families announced that they would:

- spend £18 million over the next three years to improve the quality of teaching for children with special educational needs, including:
- better initial teacher training and continuing professional development;
- better data for schools on how well children with special educational needs are progressing; and

⁴¹ Department for Children, Schools and Families, *The Children's Plan, Building Brighter Futures*,

- a pilot scheme in which children with dyslexia will receive *Reading Recovery* support or one-to-one tuition from specialist dyslexia teachers.

And (on page 79):

As we have recently announced, we will also be providing additional funding to the British Dyslexia Association to enable them to provide information and advice for teachers and parents on best practice in identifying and supporting children with dyslexia.

Further information on the *Reading Recovery* pilots and the *Every Child a Reader Scheme* is available from a Department for children, schools and families press release:

http://www.dcsf.gov.uk/pns/DisplayPN.cgi?pn_id=2008_0086

and the *Every Child a Reader* website:

<http://www.everychildareader.org.uk/index.cfm>

Annex D: The Welsh Assembly Government Reference Group for Specific Learning Difficulties

An External Reference Group for Specific Learning Difficulties (including dyslexia) was established by the Welsh Assembly Government in March 2006. The group has representation from stakeholders from Local Education Authorities (LEAs), schools and the voluntary sector, as well as other professionals with expertise in the field.

To inform the work of the Reference group, the Welsh Assembly Government sent a questionnaire to all LEAs requesting information on their provision for children and young people with specific learning difficulties. The Welsh Assembly Government intends to use the results from the questionnaire to aid the development of guidance to schools and LEAs for meeting the needs of children and young people with specific learning difficulties.

The Enterprise and Learning Committee's Dyslexia Rapporteur Group met the relevant Welsh Assembly Government official who is responsible for the Reference Group to ensure that the work of the two groups was complementary.

Annex E: The Scottish Parliament's Cross Party Group on Dyslexia⁴²

The group comprises of 6 Members of the Scottish Parliament (MSPs) and over 50 interested non MSPs. The full group has met in September and December 2007, as well as in January and April 2008. The group has discussed many of the same issues as the Assembly's Dyslexia Rapporteur Group for example a definition of dyslexia, screening, early identification of dyslexia, co-morbidity, early years support, training needs, resources and the role of ICT. Some of these issues have been looked at in depth by sub-groups on behalf of the Scottish cross-party group.

The Purpose of the Group

The aims of the group are:

- to raise awareness of dyslexia,
- to promote good practice in education and the workplace,
- to support families affected by dyslexia.

According to their website, the Group will continue to call for the establishment of a rigorous, transparent system of accountability for provision to meet the additional needs of dyslexic learners that is easily accessible and readily understood by parents and young people, and to press for all teachers to be given relevant training that will enable them to deliver an appropriate, accessible curriculum to all dyslexic pupils that will lead to them becoming

⁴² Further information is available from the Scottish Parliament's website:
<http://www.scottish.parliament.uk/msp/crossPartyGroups/groups/cpg-dyslexia.htm>

successful learners, confident individuals, responsible citizens and effective contributors.

