Minutes of the All Party Parliamentary Group (APPG): Dyslexia and Specific Learning Difficulties

Thursday 16th September 2021

4pm – 6pm

Phonics – and what does the evidence tell us?

In Attendance:
Sharon Hodgson MP – Chair
Lord Addington – Vice Chair
Henry Smith MP – Vice Chair
British Dyslexia Association – Secretariat

4pm Welcome From Sharon Hodgson MP

Sharon Hodgson welcomed everyone, introduced herself and the other parliamentarians present to the meeting and explained why the topic was relevant. Sharon pointed out that the long-standing schools minister, Nick Gibb MP, was replaced in the recent reshuffle.

Why this topic?

Hodgson explained that the recent Initial Teacher Training (ITT) Consultation and the Reading Framework published by the Government in July both propose Systematic Synthetic Phonics (SSP) as the only way to teach reading.

Of particular concern, Hodgson highlighted, is that there seems to be no room for teacher adaptation and the implication that when children fail to learn to read it must be that teachers are not teaching SSP correctly. New primary and secondary school teachers embarking on new ITT courses outlined in the consultation will be instructed not to deviate from this method.

SSP is problematic for neurodiverse children, especially those with Dyslexia.

4.05pm Introduction from the BDA

The BDA explained that the meeting was to be recorded and referenced a number of social media links.

4.10pm Developmental Dyslexia & Phonics Tuition: Going Beyond "Synthetic Phonics"

Professor Usha Goswami CBE

Usha is Professor of Cognitive Developmental Neuroscience at the University of Cambridge and a Fellow of St John's College, Cambridge. She is also founding Director of the Centre for Neuroscience in Education and a fellow of the Royal Society since May this year.

Most recently, Usha has been studying the neural mechanisms underpinning language encoding, and relationships to the rhythmic structure of infant- and child-directed speech.

Goswami thanked the BDA for raising the topic and began by noting that children come to school at various levels of learning in reading- perhaps seven years into their life in Scandinavian countries and that children with dyslexia struggle with oral language processing, seemingly because of rhythmic timing problems in the brain.

Therefore, there is a lot of research evidence that we have to offer more than synthetic phonics to our learners. To teach these children, you must be informed by these difficulties.

The causal pathway of learning a language moves from spoken language systems harnessed in the first years of learning a language through phonology, which is knowledge implicitly known through your learning development. This informs reading and emerges through childhood in first languages. When we talk to babies we rhythmically emphasise the parts of words to make ourselves clearer- so when we know the language we hear discrete words but that is only because our brains have learned what those discrete words are.

A way into this is to learn the structure of syllables and the distinction between 'strong' and 'weak' syllables. Strong syllables are sounds like 'gar' and weak syllables are sounds like 'den' (GAR-den). Babies can identify strong and weak syllables but as they age, children seem to be able to split any syllable into onset and rime subcomponents. This appears to happen across

languages before children can read. Therefore, most children arrive at school knowing where their syllables are and are able to quickly learn to read via synthetic phonics, though this depends on age and progress.

The issue with dyslexia is that children are not as equipped with the syllabic skills that their non-dyslexic peers have when they reach school.

An approach rooted in phonetics does not work fantastically in English. If you are taught a phonic rule, like 'A says "ah"' [pronounced ARR], that works in 'transparent languages' like German, but that is not consistent in English- The sound of the a in Hand contrasts with the sound of the a in harm.

Goswami highlighted a game (which emerged from research she contributed to from the EU) which is designed to teach via rhyme method. The game is called Grapho Game, and Goswami noted that the use of Grapho Game would be excluded under the proposed legislation. It particularly helps boys or those with individual education plans. Further helped those who might not have a particularly good vocab. Moreover, because English is an outlier, an SSP approach is inappropriate.

Questions including:

Where is Grapho Game accessed?

Either on the Centre for Neurodiversity in Education Cambridge website or readily available via google. https://www.graphogame.com/index.html

Is there an optimal age for starting this work?

In English, the first year of reading instruction is slightly unhelpful. Children learn at different rates.

What is available for older people?

The challenge is not making the tasks seem childish but rather offering a way around the challenges- it would be nice to have an adult version of the game.

Sharon Hodgson asked if her son's relative speech delay is a first sign.

Goswami said it is rarely the first sign for dyslexia, usually things are OK until school but Sharon's son displayed signs of aural Difficulties. For some this will be dyslexic, about half of dyslexic children will be fine at age of five in terms of aural difficulties and half will not. There is research looking for an earlier marker now.

How does this fit with a morphographical approach in other countries?

Morphography means the breaking down words into graphemes. Goswami suggested this might have a relation to the meaning of word codes in English. We

use it for communication but our language is not at the level of meaning, other languages are. Depends on nature of phonology of the language.

Can this be dealt with in teacher training?

In short, yes. Teaching young children is where a) a teacher needs the most support and b) where we can get the most development for policy and children.

------- Sharon handed over the chair to Lord Addington -------

4.35pm Timing, Sequencing & Children's Reading Difficulties

Professor John Stein FRCP FMedSci

John is Emeritus Professor of Physiology at Magdalen College. A trustee and Chair of the Dyslexia Research Trust which he co-founded, Scientific Adviser to the BDA and President of Oxfordshire Dyslexia Association.

John's research derives from an initial interest in how vision controls movement in animals, patients with movement disorders, dyslexic children, and antisocial offenders.

Stein thanked the BDA for allowing us to talk and thanked Usha Goswami. The overall aim, Stein stressed, is to convince others that teaching children to read involves far more than SSP. Stein's talk focused on 'seeing' difficulties; if you cannot see the words properly then you will struggle to learn to read, just as if you cannot hear the words properly. Stein found that many dyslexic children struggle with timing Only once children are able to thus sequence can they then grasp that the spoken word is made up of a series of other parts (phonemes, elementary sounds etc.)

Letter sequencing involves timing when the visual attention alights on each letter. Then the visual sequence of the letters or groups can then be turned into sounds. There is a special brain system, called a *magnocellular* system, which sequences this timing. There are magnocellular cells in the retina which have high sensitivity to low contrast, flicker and motion. They guide shifts of visual attention and eye movements. There is overwhelming evidence that these cells' development is impaired in poor readers and dyslexics.

Stein then guided the meeting through a comprehensive review of evidence for his claims, including some recommendation that action video games can

improve visual function via magnocellular timing function and that coloured glasses can improve magnocellular function.

Questions including:

What interventions, if any, would help teachers to address this issue?

Some of them are very simple- like using coloured glasses or filters for some children. Opportunity cost is low for things like this, no need for teachers to learn neuroscience; just profit from the results. Video games, too, are useful. A participant added that overlays have been useful for them.

5pm Phonics: what does the research tell us?

Dr Sharon McMurray MBE

Sharon is Principal Lecturer in Education at Stranmillis University College, Belfast. Sharon draws on extensive teaching experience of over 20 years in a wide range of schools including both preparatory and mainstream primary, a school for children with moderate learning difficulties and a unit for children with dyslexia.

Her research provides robust evidence of the importance of ensuring that children learn to read and spell through an integrated approach to develop orthographic, phonic, and morphemic knowledge from the very beginning.

McMurray presented her research from mainstream primaries, prep schools, school for children with moderate learning difficulties, a dyslexia unit and an outreach unit.

McMurray noted that in transparent orthographies, dyslexics are hard to identify. Phonics at grapheme to phoneme level are sufficient in transparent languages. But SSP expects children to blend up to six phonemes in words, when those with dyslexia struggle with more than two.

There is now robust evidence, according to McMurray, that phonics should be taught at orthographic level as well as alphabetic. Since onset and rime patterns are so critical for reading, they must be taught, linking into the visual pattern which can only be read at whole world level- phonics cannot be limited to phonemes when English is taught. McMurray found that SSP can be learned so well that it can impair the development of orthographic knowledge in a significant minority of children when it is used as the primary method for teaching reading.

Moreover, phonics must include phonics at orthographic levels to encompass children insensitive to orthographic patterns; must be explicitly taught. Orthographic knowledge also includes knowing if a word 'looks' right. Further,

orthographic difficulties cannot be picked up in early years, preschool or up to year one because of limited experience of print.

McMurray noted that SSP is a contributor to failure for dyslexics because of the focus of taking each sound in turn, which embeds the difficulties dyslexics face establishing unitised authographic patterns. It also leaves the DfE open to claims for compensation because they deny access to alternative teaching approaches to meet dyslexics' needs.

Additionally, McMurray assessed the 2021 core criteria for education's claim that children who are at risk of falling behind should be offered extra practice, not a different approach from SSP. McMurray said this would not meet the needs of those who are falling behind and might constitute evidence of active discrimination.

Questions From:

What are the consequences for schools who deviate from SSP?

McMurray suggested that there is a large warning signal if a child is not succeeding with SSP. Teachers' hands have been tied.

Usha Goswami:

Goswami asserted that the three presenters tried to show unity of message in the meeting, as this is a particularly important matter.

What should the approach be for those under six? Is there cumulative damage?

McMurray was asked about mental approaches to those before the age of six, with mention of cumulative damage. This becomes fractured educational access, parents are trying to buttress the failing schools system.

Would sticking to one system guarantee failure?

We already know that some children don't learn in the same way as others- some never need SSP.

5.38pm Closing Remarks from Lord Addington

Lord Addington stressed the importance of the conclusions of the meeting. That the Government have made a mistake which needs correction.

5.40pm Meeting Closed