Fact Sheet 1

'Phonological Deficit Theory' and dyslexia identification

The 'phonological deficit hypothesis' implies that if one can detect children with poor phonology and remedy that then everything else will be OK. However, this paradigm has certain weaknesses and whilst recognising the relevance of the Phonological Deficit Theory, Lucid has taken a more complete approach in producing its software.

The main weaknesses of the 'Phonological Deficit Theory' approach are:

1. Most Educational Psychologists, specialist dyslexia/SpLD teachers, and many researchers in the field recognise that there is **MORE to dyslexia** than simply difficulties in phonology. Many dyslexic children have problems other than with phonology and some dyslexic children do not perform poorly on tests of phonological processing. But the phonological deficit hypothesis is a popular one because it is scientifically 'elegant' (or simplistic, according to one's perspective).

2. By assessing ONLY poor phonology you will be **missing a significant proportion** of dyslexics, who will go on to present greater problems later in schooling and require more intensive support at that stage. The UK Code of Practice calls for early identification of ALL special needs.

3. If you are going to screen children to find those with poor phonology you must use a scientifically **valid** and **reliable** test of phonological processing.

4. Programmes to provide **intervention in phonological processing do not always work**. See, for example, the major longitudinal study by the School of Education, University of Birmingham, in which it was found that there were no significant differences in later reading or writing of children who had received early phonological training compared with children who had not received early phonological training. The study also questioned the feasibility of identifying young children at risk of reading difficulties purely on the basis of poor phonological awareness. (See Layton, Deeney, Upton and Tall, Journal of Research in Reading, 1998, vol 21(1), pp 36-52.)

5. Our view is that to reliably identify dyslexic children you need to look at the **full profile**, taking into account not only phonological processing ability, but also **other significant indicators** of later difficulty, such as poor **auditory working memory** and **auditory discrimination** difficulties. If children have **visual memory** problems then that will also impact on their learning to read and write. On the other hand, if they have visual memory strengths (as many dyslexics do) they will be likely to persist with visual strategies in reading and fail to acquire effective phonic skills, which creates difficulties for reading and writing later on.

This is also supported by recent research findings (e.g. see Johnston and Anderson, Memory, 1998, vol 6, 143-163).

Conclusion

Teachers need to know about all these factors and adapt their teaching accordingly. This approach is more complex than the simplistic approach of: identify problems with X, fix X, problem solved (where X = phonology, but could in principle be any single factor). Literacy is a highly complex cognitive activity, and it is highly improbable that assessing and remedying one factor (phonology) is going to address the problem of dyslexia.

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