



Research Review

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Developmental dyslexia in adults: a research review

Synopsis

The *Skills for Life* strategy is committed to addressing the needs of learners with learning difficulties such as developmental dyslexia. The term 'dyslexia' is problematic: there are many definitions, with varying degrees of overlap. For the purposes of this review, 'dyslexia' has been interpreted widely, to embrace most if not all of the ways in which the term has been used by scientists and educationalists.

This is a *research* review. It was undertaken to establish the evidence base for developmental dyslexia in adults. It began by searching electronic data bases, exploring library holdings, and following citation trails. This process identified a large number of potentially relevant book chapters and papers published in peer-reviewed journals, which were then read critically.

The review draws attention to a range of methodological and interpretational problems in the literature, with particular respect to sampling and research design. It presents a detailed account of phonological awareness. Four explanatory theories of dyslexia are summarised and their implications for teaching practice are assessed. Three alternative perspectives on developmental reading difficulties are described. The language in these accounts reflects, where necessary, the terminology used in their sources.

Key Points

The research review found that:

✘ There are many reasons why people find it

difficult to learn how to read, write and spell. Some causes of reading difficulty are located within society and some are located within the individual.

✘ There are many definitions of dyslexia but no consensus. Some definitions are purely descriptive, while others embody causal theories. It appears that 'dyslexia' is not one thing but many, in so far as it serves as a conceptual clearing-house for a number of reading skills deficits and difficulties, with a number of causes.

✘ There is no consensus, either, as to whether dyslexia can be distinguished in practice from other possible causes of adults' literacy difficulties. Many 'signs of dyslexia' are no less characteristic of non-dyslexic people with reading skills deficits. In our present state of knowledge, it does not seem to be helpful for teachers to think of some literacy learners as 'dyslexics' and of others as 'ordinary poor readers'.

✘ Learning to read in an alphabetic system helps, and is helped by, the development of phonemic awareness.

✘ Reading fluency is a complex process, and research is needed for this process to be better understood.

✘ The most inaccurate readers are not the most likely to be dyslexic, as most scientists use the term.

✘ Teachers of both initial reading and adult literacy need to be well-informed about language and its acquisition.

- ✘ The teacher's aim must be to impart declarative knowledge (or knowledge that) and to ensure that the learner transforms it into procedural knowledge (or knowledge how) in order to be able to draw upon it without conscious attention.
- ✘ Reading interventions need to address both the cognitive and the emotional needs of adult students.
- ✘ Adult literacy learners need to be taught how their writing system works.
- ✘ The research does not indicate that 'dyslexics' and 'ordinary poor readers' should be taught by different methods. However, the methods promoted as specialist interventions for dyslexic people are well suited for mainstream teaching, which is how they originated.
- ✘ Good practice in this field rests almost entirely on professional judgement and common sense, rather than on evidence from evaluation studies. The review found no experimental evidence comparing the group outcomes between dyslexic adults and the wider population of adults with reading skills deficits.
- ✘ Many people who have difficulty in learning literacy skills can be helped by a curriculum that is both structured and explicit, with methods that reinforce their learning. However, a minority of learners do not respond to structured and explicit reading intervention programmes, and ways of helping them have yet to be developed.
- ✘ Students will not become proficient without repetitive practice.
- ✘ Computer-supported instruction can make repetitive practice acceptable to adult students.
- ✘ Findings from research with middle-class groups of mother-tongue speakers may create misleading expectations about the needs and abilities of learners in adult literacy classes.

Background and rationale of research

The research was undertaken as part of the NRDC's programme of research reviews into key aspects of adult basic skills teaching and learning. The aim was to identify ways in which adult literacy practitioners could better meet the special needs of some of their students.

More generally, it was intended to establish a sound theoretical basis for adult literacy teaching and learning. The review was based on a robust analysis of the scientific research literature on developmental dyslexia as it affects adults. It was then the aim to establish what implications, if any, the literature holds for teaching adults with literacy needs.

Research team

Dr Michael Rice (University of Cambridge, formerly Senior Research Officer, NRDC Institute of Education) carried out the research, under the supervision of Professor Greg Brooks (University of Sheffield), who edited the report.

References and further reading

The report is itself the main reference. Over 600 books, articles, and other studies are referenced. Appendix 9 lists thirty-six sources of particular relevance to literacy teachers. Other Appendices include a catalogue and analysis of different definitions of dyslexia, and an analysis of items of dyslexia and other behavioural checklists.

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May 2004 in PDF and Word formats from
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