

LOW P.A. CAN



READ O.K.

Stephen Krashen argues that phonemic awareness training cannot be a prerequisite to reading: many children with low and even no phonemic awareness succeed in learning to read, and some adults with considerable reading ability show low phonemic awareness.

Phonemic awareness (PA), the ability to divide a word into its component sounds, is considered by many to be necessary for reading development. PA, it is argued, is the foundation skill for phonics, which in turn is the foundation for reading. This view is certainly not held by all researchers, but is implicit in state policies that mandate universal PA training. In this paper I argue that this strong position must be incorrect: many children with low PA appear to have no problems in learning to read, and the results of one study suggest that even children with no measurable PA at all can learn to read.

Fink's study (Fink 1996) of adults who read very well but who have poor 'skills' show us how they did it: through massive amounts of interesting, comprehensible reading.

Low PA can read OK

Bradley and Bryant (1985) reported that of a group of 316 children, 25 performed especially poorly on a test of PA (one standard deviation below their expected score, based on a test of verbal skills) at ages four and five. Of these, only seven turned out to be poor readers (scoring one standard deviation below their expected reading score, based on IQ) three years later. Thus, 72% of those with low PA were not delayed in learning to read.

Similarly, Wimmer et al. (1991) noted that most children with low PA at the start of Grade 1 read well when tested seven months later. There were some children with low PA who did not make good progress, but few children were in this category. Wimmer et al. did not utilise tests of reading comprehension.

Consider, however, children's performance on the test of 'non-word reading' (nonsense word reading):

	Mean	Range
Low PA group (n = 19)	9.8	3 – 12
High PA group (n = 11)	11.7	11 – 12

The high PA children scored nearly perfectly on this test. But the low PA group did quite well, and only four low PA students had scores of less than 10 out of 12. Thus, 79% (15/19) of the low PA children read quite well. Wimmer et al. also reported that 'five children with a complete lack of PA at the beginning of grade one read at least 11 of the 12 non-words correctly ...' (p. 229). These results suggest that these low PA children had actually 'cracked the code' and were not simply 'pseudo reading,' that is, only recognising words as whole units.

It could be argued that the children in these two studies were lucky enough to get some PA instruction after they were tested. But another study shows that children with little or even no PA can read.

Stuart-Hamilton (1986) intended to compare reading strategies of five-year-old children who had developed some phonemic awareness with those who had not. Stuart-Hamilton selected 20 children of his sample of 154 who did well on a test of PA (onset-rime), and another 20 who scored zero.

It is important to emphasise that the children who scored zero on the PA test really had no PA. For those who did poorly, 'remedial measures' were taken by the tester (p. 273). This included 'employment of different terms in explaining the task, the breaking of the task into sub-components (e.g. asking the child to identify just the final letter of one word), and working through an example with him or her ...' (p. 273). Children who scored zero were impervious to this help. Thus, a score of zero meant complete failure to perform.

Those who scored zero on the PA test were then matched for reading ability with those who did well on the PA test; reading ability was measured by a word recognition test and by teacher ratings of progress in learning to read. Because they were matched, the groups were equivalent on word reading. Teachers rated the reading progress of high

PA students as 'above average' (3.43 on a 1 to 5 scale, where 3 = average) and zero PA students as slightly below average (2.83). What is significant is that Stuart-Hamilton was able to find 20 students in a group of 154 (13%) who had no measurable phonemic awareness but were who able to perform adequately on a word reading task and were judged by their teachers to be making near-normal progress in learning to read!

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Adults who read well with low 'skills'

Several studies have been published describing successful readers who had low 'skills'. Campbell & Butterworth (1985) describe a spectacular case. Their subject, R.E., was a university student who 'reads as least as well as her fellow undergraduates' (p. 436); she graduated from London University with second-class honours in psychology and performed above average on standardised tests of reading. She had great difficulty in reading nonsense words, and while she knew the names of all the letters, she had difficulty making the sounds corresponding to the letters. She also performed poorly on tests of phonemic awareness and phonemic segmentation, using orthographic instead of

phonological strategies (for example, when counting the number of sounds in a word, she was influenced by the number of letters). Campbell & Butterworth conclude that 'Since R.E.'s word reading and spelling are good, strong claims based on the necessity of a relationship between phonemic segmentation and manipulation skills, on the one hand, and the development of skilled reading and writing, on the other, must be weakened' (p. 460).¹

If some children learn to read with low or no PA, how did they do it?

How they did it: The importance of a good diet

A study by Fink (1996) is particularly informative because it describes how reading ability developed in those with low levels of 'skills'. Fink studied 12 'professionally successful' men and women who had been considered dyslexic when younger. The group included a Nobel laureate and a member of the National Academy of Sciences, and they were successful in fields 'that required high levels and huge amounts of reading' (p. 271). Nine of the 12 had written and published a considerable amount of

'creative scholarly works' (professional papers and texts) and the other three 'wrote on a daily basis for their professions' (p. 276)

All reported that they had had considerable difficulties in learning to read; most developed 'basic fluency' in reading three to four years later than their peers, between ages 10 and 12. Although all were competent readers as adults, they still had problems with 'basic skills,' including PA: 'all 12 dyslexics grappled with profound problems with letter identification, word recognition, and sound analysis' (p. 273). Clearly, these 'problems' did not prevent them from developing high levels of literacy.

How had they reached such a high level of development despite their 'profound' deficits in skills and decoding? They all became 'passionate' and dedicated readers, reading a great deal in areas that they found to be interesting. This 'passionate' reading, according to Fink, helped them develop a great deal of familiarity with certain topics and certain styles of writing, which allowed them to take more advantage of context when reading.

Fink's explanation gives the reader the impression that these 'recovered dyslexics' had travelled a somewhat different road, taking greater than normal advantage of context. Fink concludes that different children learn to read in different ways, and that high interest reading should be incorporated along with other approaches.

It could also be argued, however, that these readers took the normal path: motivated reading in an area that is of interest to the reader, which is often 'narrow' reading that gradually expands as readers' interests grow (Krashen 1996). Interestingly, the same diet appeared to work very well for normal readers who started to read later than usual, home-school children who were resistant to standard reading instruction when younger (McQuillan 1998).

Conclusions

About three-quarters of children who test low in PA appear to have no serious problems in learning to read. In addition, the 'low PA/poor reader' group is about 2% of the general population of children (from Bradley & Bryant 1985; only 7 of the 25 who scored low on the PA test had problems in learning to read and 316 children were tested; $7/316 = 0.02$). Even if PA training were effective, this is hardly a convincing argument to prescribe massive and universal PA training.

There is, however, good reason to doubt the effectiveness of PA training. Controlled studies reveal that PA training has a strong effect on tests of PA but very little impact on reading comprehension (Krashen 1999a, Coles 2000). What does have a clear

impact on reading comprehension ability is real reading, a conclusion consistent with Fink's results as well as the results of many other studies (Krashen 1993, 1999b).²

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Notes

1. For additional cases, see Bruck (1980, 1990), Gallagher, Laxon, Armstrong & Frith (1996), Cossu, Rossini & Marshall (1993), and Elbro, Neilson & Petersen (1984). Gombert (1994) provides another possible case of an adult reader with low skills, one of seven 'literate' subjects tested who 'totally failed' a test of PA (p. 258), but who improved on a test of initial consonant deletion after a small amount of training.

If, as some have claimed, PA and phonics are the result of reading, not the cause, the only serious deficit these readers have is that reading has not resulted in substantial development of these 'skills,' typically manifested in sub-par spelling, and somewhat slower reading speed, and, of course, the inability to deal with nonsense (Bruck 1992).

2. Shankweiler, Lundquist, Steubing, Fletcher, Fowler, Dreyer, Marchione, Shaywitz & Shaywitz (1998) identified a group of children with relatively higher reading comprehension ability than decoding ability, and concluded that these children need 'extra help to strengthen word attack skills through a program that promotes phonological awareness' (p. 91), quite a different path from the one Fink's subjects followed. While these children read higher than expected, based on their decoding ability, they were not 'good readers': This group may be a younger version of the subjects described in Fink (1996, 1998). If so, it is no surprise that their scores in reading comprehension are somewhat, but not drastically, depressed. Their scores may simply be a result of slower development, caused by a lack of real reading; recall that readers studied by Fink (1996) did not learn to read fluently until they were between ages 9 and 12. The subjects in Shankweiler et al. were between ages 7.5 and 9.5. If this is true, what they need is a diet of good reading, not more 'skills'. Shankweiler et al. do not inform us about how much leisure reading these children have done, but we can be sure that they have all had at least some exposure to decoding instruction.

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A Note on Visual Literacy

Visual information is everywhere. Television, computer screens, signs, symbols, books, magazines, movies, and even body language provide visual messages, which must be read in their own ways. How does a visual image communicate its intended message? What makes it effective? And what is the best visual structure to use in a given situation? Although there are no easy answers to questions like these, understanding visual literacy will help guide us in working with visual images with students. Skill in representing ideas visually is one that evolves over time.

Vicki Leishman, an honours student in Graphic Design from Western Australia, sent us details of the International Visual Literacy Association (IVLA) web site www.educ.kent.edu/vlo/intro/index.html from which these notes are taken. Vicki's research interest concerns the extent to which visual literacy is treated as a 'key' skill within the literacy curriculum. We expect to publish a longer article from her in 2002.

Visual literacy is the ability to understand, create, and use visual images. It has three parts – visual thinking, visual communication, and visual learning.

- Visual thinking is the ability to transform thoughts, ideas, and information into all types of pictures, graphics, or other images that help communicate the associated information.
- Visual communication is when pictures, graphics, and other images are used to express ideas and to teach people.
- For visual communication to be effective, the receiver must be able to construct meaning from seeing the visual image.
- Visual learning is the process of learning from pictures and media, and includes the construction of knowledge by the learner as a result of seeing the visual image.

An excellent resource into the nature and practice of visual rhetoric is *Reading Images – The Grammar of Visual Design*, by Gunther Kress and Theo Van Leeuwen 1996, 288 pages, Routledge. In the introduction Kress and Van Leeuwen mention their three mentors – Rudolph Arnheim, Roland Barthes and Michael Halliday – and one can see the heavy influence. However, this work really comprises a completely new theory and it posits a new way of seeing and understanding visual text. Heavy but worthwhile!