



EVIDENCE-BASED PRACTICES

Mastering the alphabetic principle, the ability to map speech to print, is the focus of the three articles reviewed in this issue. The three articles support two basic concepts: (1) acquisition of the alphabetic principle is highly dependent on a student's phonological awareness, and (2) systematic and direct instruction in phonics is necessary for student reading proficiency. The reviews briefly examine the research that identifies the skills needed for a student to develop letter recognition, letter-sound relationships, and spelling skills, the three components of the alphabetic principle.

Literature Reviews

Liberman, I. Y., Shankweiler, D., & Liberman, A. M. (1989). *The alphabetic principle and learning to read.* Reprinted from "Phonology and reading disability: Solving the reading puzzle," *International Academy for Research in Learning Disabilities Monograph Series*.

This analysis examines fifteen years of research on the correlations between reading difficulties and beginning readers' deficits in mastery of the alphabetic principle. Mastery of the alphabetic principle, a system that maps speech to print, is dependent upon one's strength in phonological awareness. The authors assert that the letters of the alphabet are not merely sounds, but representations of the phonological segments the sounds of the letters communicate. Further research on reading suggests that preliterate children, who have not attained an understanding of the internal phonemic structure of words, do not automatically understand and apply the alphabetic principle. In addition, future proficiency in reading, writing, and spelling is dependent upon awareness of phonological structures. However, longitudinal studies have shown that children who initially exhibited weak phonological awareness responded positively when provided with appropriate instruction. Those children who have difficulty in the phonemic structure of words and in the application of the alphabetic principle tend to be deficient in short-term memory and sentence comprehension. Direct instruction is crucial for beginning readers who display difficulty in phonological awareness and alphabetic principle.

Foorman, B. R., et al. (1998). *The role of instruction in learning to read: Preventing reading failure in at-risk children.* *Journal of Educational Psychology*, 90(1), 37-55.

This article reports the results of a study of almost 300 Title I students that examined the degree of explicit instruction necessary for at-risk students to learn the letter-sound and spelling relationships of the alphabetic principle. Three instructional approaches were studied: direct instruction in letter-sound correspondence practiced in decodable text, less direct instruction in systematic spelling patterns embedded in connected text, and incidental instruction in the alphabetic code embedded in text. The Open Court reading series (1995) that emphasized phonemic activities and phonics rules was used as the decodable text. Embedded text groups used lists of spelling words and library books that incorporated these words accompanied by whole-class activities such as shared, choral, and echo reading along with comprehension and word family activities.

Classroom Implications

- Frequently assess phonological awareness skills in kindergarten and first grade, and provide daily explicit instruction when there are deficits to help students relate sounds to letters of the alphabet.
- Use manipulatives and concrete representations of syllables, phonemes, and letters for teaching early reading skills.
- Use teaching methods that include more intensive, direct, and systematic training in phonological structure and help students know how sounds relate to the way words are written.
- Provide one-on-one direct instruction in phonological skills and alphabetic principle to students who did not benefit from whole-class instruction.
- Provide direct instruction in letter-sound correspondence to all children.
- Align tutoring programs for students with reading deficits to the explicit classroom instruction in the alphabetic principle.

Results showed that students receiving direct instruction in the alphabetic principle improved their word-reading skills at a significantly faster rate than those receiving indirect instruction through exposure to literature. This was true even for those having lower levels of phonological awareness entering into the study. For those students who continue to have difficulties, one-on-one instruction aligned with the content and approach used in the classroom appears to be beneficial.

National Institute of Child Health and Human Development. (2000). Report of the National Reading Panel. Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction: Reports of the Subgroups (Chapter 2, Part II). [Online]. Available: www.nichd.nih.gov/publications/nrp/ch2-II.pdf

An essential part of learning to read is learning letter-sound correspondences/spelling patterns and then applying this knowledge. Systematic phonics instruction is one way to teach this process. Explicit phonics instruction uses a planned sequence of phonics elements in teaching and practice. Whole-language, basal, and sight word programs are examples of programs that do not teach phonics explicitly and systematically. The Panel examined 38 studies that looked at programs of both types and their effectiveness in teaching the alphabetic system and using it to decode. Systematic phonics programs (some highly structured employing teacher scripts) begun in kindergarten or grade one, rather than alternative approaches, enabled students to make the greatest gains. While this type of phonics instruction made a significant difference in skill development among young at-risk readers, it had little impact on older disabled readers. The same was true for the impact of this instruction on spelling skills. The Panel recommended selecting and using programs that focus on utilizing sound-letter relationships in daily reading and writing for students in kindergarten and grade one.

- Scripted systematic programs are effective.
- Employ a systematic approach, especially for at-risk students, when teaching the alphabetic principle; incidental teaching will not be as effective for students in kindergarten and grade one. Teachers may have to carefully examine commercially available programs and select one to augment the reading program already in place.
- Use phonics instruction programs that have a cumulative scope and sequence and provide many opportunities for modeling and practice.

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