Research Regarding Phonics

Phonics defines the set of relationships between written letters and the spoken sounds that those letters represent. Closely related to phonics is "phonemic awareness", a child's understanding of the idea that spoken words can be broken down into constituent sounds.

During the 20th century, an enormous amount of scientific research was conducted on the subject of reading instruction. Several formal surveys of this research were conducted during the latter part of the century, and all of them reached the same conclusion:

- On three separate occasions, Jean S. Chall surveyed the entire body of reading research available up to the date of the survey (1967, 1983, 1996). The first of these studies was commissioned by the Carnegie Corporation and conducted at Harvard University. Chall concluded that comprehensive, systematic, phonics-first instruction was overwhelmingly supported by the vast majority of the research. Reference: *Chall, Jean S., "Learning to Read: The Great Debate", 1967, 1983, 1996.* Her final conclusion on p. 307 of the third edition was:

  "The research … indicates that a code-emphasis method – i.e., one that views beginning reading as essentially different from mature reading and emphasizes learning of the printed code for the spoken language – produces better results … The results are better, not only in terms of the mechanical aspects of literacy alone, as was once supposed, but also in terms of the ultimate goals of reading instruction – comprehension and possibly even speed of reading. The long-existing fear that an initial code emphasis produces readers who do not read for meaning or with enjoyment is unfounded. On the contrary, the evidence indicates that better results in terms of reading for meaning are achieved with the programs that emphasize code at the start than with the programs that stress meaning at the beginning."

- In the late 1980s, Marilyn J. Adams (at University of Illinois at Urbana-Champaign) was commissioned by the U.S. Department of Education's Office of Education Research & Improvement (OERI) to survey the entire body of reading research. She reached the same conclusion that Chall did, presenting her results in the form of a fully research-based textbook. Reference: *Adams, Marilyn J., "Beginning to Read: Thinking and Learning About Print", 1990*. Her final conclusion on p. 416 was:

  "In summary, deep and thorough knowledge of letters, spelling patterns, and words, and of the phonological translations of all three, are of inescapable importance to both skillful reading and its acquisition. By extension, instruction designed to develop children's sensitivity to spellings and their relations to pronunciations should be of paramount importance in the development of reading skills. This is, of course, precisely what is intended of good phonic instruction."

- In 2000, the National Reading Panel issued the following statement in its April 13, 2000 press release:

  "In the largest, most comprehensive evidenced-based review ever conducted of research on how children learn reading, a Congressionally mandated independent panel has concluded that the most effective way to teach children to read is through instruction that includes a combination of methods. The panel determined that effective reading instruction includes teaching children to break apart and manipulate the sounds in words

(phonemic awareness), teaching them that these sounds are represented by letters of the alphabet which can then be blended together to form words (phonics), having them practice what they've learned by reading aloud with guidance and feedback (guided oral reading), and applying reading comprehension strategies to guide and improve reading comprehension."

In another comprehensive survey of research regarding twenty- four widely used school reform models (commissioned by the National Education Association [NEA], the American Association of School Administrators [AASA], and others), only three models showed "strong evidence" of effectiveness. Only two of the three were applicable in elementary school (the third was a high school model), and both of these models featured highly structured, systematic phonics instruction; most of the other models did not feature such instruction. Reference: An Educator's Guide to Schoolwide Reform, 1999, published on line by the American Association of School Administrators.

In addition to these surveys, two ultra-large-scale government research projects also support the use of comprehensive, systematic phonics:

- In Project Follow-Through, the largest educational study every conducted in the history of education research, the U.S. Department of Education compared a systematic, comprehensive, phonics-based approach against eight other styles of teaching reading. The results indicated the overwhelming superiority of the phonics-based approach. The study was especially interesting because it was conducted in "real-world" classrooms rather than in the lab.

- The National Institute of Child and Human Development has spent 30 years conducting credible, large-scale scientific reading research. Perhaps no other organization is as strident as the NICHD in its consistent recommendations that teachers implement comprehensive, systematic phonics. Bonnie Grossen's summary of the NICHD research findings and the recent testimony of Dr. Ried G. Lyon (of the NICHD) to the U.S. Congress make for some interesting reading.

And finally the entire state of California inadvertently performed its own large-scale "research" during the late 1980s and early 1990s by dropping phonics statewide from its reading curricula in 1987. The resulting catastrophe precipitated several events:

- By 1994, when all of California's public school fourth-graders had been trained exclusively in a phonics-free environment, their performance had dropped to the very bottom of the national scores on the U.S. Department of Education's NAEP Reading Report Card (it tied with Louisiana for last place among 39 states tested).

- The state education superintendent of the time, Mr. William Honig, stepped down from his position. He has since written a book (*Teaching our Children to Read: The Role of Skills in a Comprehensive Reading Program*) explaining the enormity of California's mistake.

- The California State Board of Education has now revised its official reading policy, and California is just beginning its long, slow climb back up the ladder (in 1998 it ranked fourth from the bottom among participating states).

Conclusions of decades of research in reading (not just the "latest research" so often cited in the promotional material for many curricula) are summarized succinctly in the following set of recommendations:

- *Teach phonemic awareness explicitly.* Although there are some children who have an implicit understanding of phonemic awareness, almost all children benefit greatly from explicit instruction. Phonemic awareness is a prerequisite for successful subsequent phonics instruction.

- *Teach every letter-sound correspondence explicitly.* Research supporting this idea is simply overwhelming. Children who have been trained explicitly to decode words are far more likely to read successfully than children who have had limited training or no training.

- *Teach high frequency letter-sound relationships early.* Successful curricula tend to involve students in activities in which they can experience immediate and ongoing success. A successful phonics program gets children reading as soon as possible by teaching the highest frequency relationships early and presenting students with stories that consist of words containing only the relationships that have already been taught.

- *Teach sound-blending explicitly.* Students do not necessarily understand how to connect the phonemes in unfamiliar words. Students with explicit training outperform those who have had little or no training.

- *Correct every oral reading error.* All children, and especially children with reading difficulties, benefit the most when they receive corrective feedback regarding all reading errors, regardless of whether those errors influence the meaning of the passage (many meaning-emphasis programs encourage teachers to correct only errors affecting meaning).

- *Use code-based readers rather than ordinary literature during early instruction.* Any curriculum whose early reading experiences consist only of exposing children to ordinary literature will almost certainly induce a high failure rate, and consequently lead to initial discouragement and confusion among students. Programs which compensate for this failure by encouraging the use of context (i.e. guessing) actually hinder reading development. In contrast, curricula that induce and sustain a high level of success through careful, systematic design produce the highest levels of reading success and self-esteem.

To see a listing of research supporting each of the above assertions, please visit our Phonics Research Bibliography.