



Reading the Right Way : What research and best practices say about eliminating failure among beginning readers

BY BILL HONIG

Teaching children to read is the key to subsequent educational success and should be the most important priority of elementary school.

Yet in many inner-city, suburban and rural schools, large and growing numbers of children are reaching upper elementary levels unable to read and understand grade-appropriate material--as many as 70 to 80 percent in some inner-city schools and 30 percent in some suburban schools. The magnitude of this problem causes not only innumerable personal tragedies but also significantly drives instruction down and jeopardizes the future of our public schools.

What is most frustrating is that much of this reading failure could be prevented if schools just applied what is known about beginning reading instruction. While the field of reading seems mired in contentious debate--principally pitting phonics against whole language as the best instructional approach--a powerful and persuasive consensus has developed among educational, cognitive and medical researchers, as well as our best teachers, about the causes and cures of reading failure.

Ripe for Improvement

These ideas have been successfully implemented in thousands of classrooms in diverse settings with spectacular results. They draw from the whole language movement but also include organized skill development components such as phonemic awareness, phonics and decoding. As such, effective reading programs use elements from both traditions that have proven successful while discarding those that have proven ineffective.

Although this comprehensive approach is not driving reading instruction in most classrooms, teachers are hungry for information about specifics and willing to apply them in their classrooms and schools. Reading instruction is ripe for improvement because teachers daily face children who are not learning to read, and they realize a gap in instruction exists. In such situations, administrative leadership is crucial.

Before change can occur, administrators need a detailed knowledge of the reading process so they don't get taken in by specious advice.

Although for most children the reading battle is lost in kindergarten and 1st grade, the best place to begin the search for remedies is to observe students who have difficulty reading in upper grades. In the course of working with school districts nationwide to improve reading performance, I have asked more than 10,000 teachers to describe such students. They uniformly state (consistent with the research) that reading-deficient children in the upper primary grades exhibit:

- poor decoding skills (students struggle with too many individual words and don't know how to effectively tackle a new word);
- weak vocabulary;
- the inability to read strategically and actively;
- poor spelling;
- too few reading opportunities outside of school; and
- poor motivation, lack of confidence or avoidance behavior, all stemming from experiencing too much reading failure.

Rule of Thumb

Recent research has developed a powerful explanatory theory of why poor readers exhibit these behaviors. The theory is based on the two ways that proficient readers gain meaning from text: (1) from the *word*--the vocabulary concept underlying an individual word and (2) from the *passage*--from stringing those words together and thinking about their meaning.

This research shows that in proficient reading, word recognition is primarily an automatic, unconscious and rapid process. Conversely, passage understanding is primarily an active, engaged, thinking process of weaving individual words into a meaningful whole, thinking about what the author is saying and connecting it to other ideas.

If readers take too much time and mental effort decoding individual words, they can't attend to passage meaning. The rule of thumb is this: A student should recognize 18 or 19 out of 20 words automatically or reading comprehension suffers, a construct referred to as automaticity. Additionally, by sixth grade if students are reading below 100 to 120 words a minute, they probably cannot attend to meaning properly. The 1992 National Assessment of Educational Progress showed that more than 40 percent of American 4th-graders read too slowly to understand what they were reading.

A balanced reading program should include strategies to develop both automatic word recognition *and* passage comprehension. Many reading programs used in schools fall short of this balanced approach. They de-emphasize the word side and the tools by which students become automatic with a growing number of words and over-rely on the passage side. These inadequate programs are based on the theory that the arduous instructional task of developing word recognition skills for many children can be avoided or minimized because the passage can supply word meaning. Vast amounts of research and experience now dispute this view.

One strand of studies, focusing on computer eye research, has disposed of the claims that proficient readers skip a large number of words. Actually, studies suggest, they read virtually every word and see all the letters in each word. (Try skipping a *not* in expository text.)

Other studies show that using context can help decode words only about 10 to 25 percent of the time and this rate is too slow for fluency. It is the poorer readers who rely on context-based decoding strategies. Finally, studies have demonstrated that using indirect methods first (such as context) and waiting to directly instruct those who fail to intuit the alphabetic system significantly decreases the odds that those struggling students will learn to read properly.

In 1st grade, recognizing individual words contributes about 80 percent of meaning. (The words and concepts of the story are simple and if the words are recognized the meaning of the story is apparent.) In later grades, other factors increase in importance such as strategic reading ability or the ability to discuss what has been read, but recognizing individual words still remains crucial to reading for understanding.

Decoding Skills

Becoming automatic with a growing number of words depends on knowing how to use the alphabetic system to decode words. (Decoding is the ability to read through a word from left to right, generate the sounds that are connected to all the letters or letter patterns in that word and manipulate those sounds until they connect to a word in the student's speaking vocabulary.) This finding is one of the most validated in reading research and equipping each child with the ability to decode simple words should be a major goal of kindergarten and early 1st-grade reading instruction.

First-grade decoding ability predicts 80 to 90 percent of reading comprehension in 2nd and 3rd grade and still accounts for nearly 40 percent of reading comprehension by 9th grade!

Why should the ability to sound out a pseudo-word like *mot* in mid-1st grade and *lote* or *blar* by late 1st be so predictive of later reading ability? (A pseudo-word assures that the child has not seen and memorized the word and so is a true test of decoding ability.) The reason has to do with storing words efficiently in memory for subsequent rapid retrieval.

Thoroughly decoding a word the first few times it is read forces a reader to connect information about the unique pattern of each of the letter/sound combinations to the meaning of the word. When a word is read, the letters of the word are stored in one part of the brain, the sounds in another and the meaning of the word in another so it is

necessary to establish neural connections among these parts. Subsequent successful readings strengthen these mental connections and quicken the retrieval process until it occurs automatically. Additionally, early readers who want to read for meaning independently need a strategy for figuring out words that they have not yet seen in print.

Theories that questioned the importance of alphabetic decoding of individual words have not withstood scientific and empirical scrutiny. Furthermore, the children's inability to figure out the sounds of printed words is implicated in most cases of reading deficiency. Compared to full alphabetic screening of a word, no other method produces fast enough retrieval for the huge numbers of words in English--there are too many words to memorize without using the generative nature of the alphabetic system. Contextual cues are essential for increasing vocabulary, resolving ambiguity in decoded words or confirming a decoded word ("Does it make sense or does it sound right?"). But context-driven decoding even aided by partial alphabetic clues is too slow and unreliable to serve as a fluent decoding tool.

For example, a recent large-scale study in New Zealand found that 1st-graders who use sounding-out strategies for new words as opposed to context-based strategies (skipping the word, reading to the end of the sentence etc.) read significantly better in 2nd and 3rd grades than do poorer and second-language learners. These more vulnerable children tended to use the less-effective context-based method.

Extensive research and practical experience has demonstrated that learning to read does not come as naturally to most children as learning to speak does. It needs to be taught. As many as 50 percent of children will intuit the alphabetic system from the instructional strategies now in vogue--exposure to print and print activities and mini-lessons in the context of reading a story. However, many students need an organized program that teaches phonemic awareness, letter sound correspondences and decoding skills to learn to read. This need is especially true of the dyslexic, low socioeconomic and second-language children who fail under our present emphasis on indirect strategies.

Moreover, many 1st-grade students may seem to be progressing because they are memorizing words. Yet many remain unable to decode words and will subsequently suffer reading problems. Thus, every student needs to be evaluated to determine if he or she understands and can use the alphabetic system. Finally, almost all students' learning will be accelerated or consolidated by helping them understand the alphabetic system.

Decoding ability, vocabulary level and spelling are extremely highly correlated with reading comprehension. Pedagogically, they are connected. The best method for building vocabulary is to read extensively, and children cannot read extensively, especially when text becomes conceptually and structurally more difficult in 3rd and 4th grade, unless they have become automatic with a large number of words and proficient at decoding and learning new words. Similarly, learning spelling patterns helps accelerate decoding and developing automaticity with written words.

A vast amount of research also has shown that learning decoding and independent reading of simple non-predictive text in 1st grade is developmentally appropriate. (Approximately 95 percent of children are mature enough to learn basic phonemic awareness and letter recognition in kindergarten and phonics and decoding in 1st grade.) These studies also found that if students are not taught these skills early, most will never recover. Only one out of eight children reading below grade level by the end of 1st grade will ever read grade-appropriate materials, though expensive and well-designed intervention can beat these odds.

Decoding gives students a sense of success, confidence and independence in figuring out and remembering a new word. This independence leads to real, not pretend, reading: Students know they can look at a previously unread simple text and read it. Non-decoders seldom experience this success and continually experience frustration in attempting to read.

Researchers estimate that nearly half of special education students would not need that expensive program if they were taught initially to read properly. Unfortunately, few schools make the ability to decode a primary objective in 1st grade, check to see which children can do it and then help the ones who can't.

Instructional Implications

To acquire the ability to decode a simple word by mid-1st grade, students must have reached basic levels of phonemic awareness (the ability to hear and manipulate the sounds in spoken words), recognize letters and have acquired basic concepts in print, preferably by the end of kindergarten. Then, by mid-1st grade, they learn about half of the basic letter/sound correspondences (at least the consonants and short vowels and a smattering of blends, long vowels and more complex vowels) and the patterns of words using these sounds. They also master a core of high-frequency words and phonograms, how to map sounds to letter/letter patterns in sequence in written words (blending or sounding out) and how to apply this knowledge in figuring out a word that has not been read before but is in the student's speaking vocabulary.

Many students figure out how to sound out or blend after a few attempts; many others find this skill difficult and need several months to master this skill. In late 1st and 2nd grades, students need to extend their letter-sound knowledge to the more complex patterns and learn to use larger orthographic patterns when they sound out a word.

Four major deficiencies in reading instruction prevent students from learning how to decode:

- Nearly 20 percent of our students do not develop threshold levels of phonemic awareness in kindergarten. (This means they can not distinguish the discrete sounds in words and manipulate and sequence them, which is necessary to connect sounds and letters in words.) And, these children were not diagnosed and given assistance.
- Students were not taught enough about the main letter/sound correspondences and thus did not learn the alphabetic system.
- About a third of our students have difficulty in learning how to read through a word or how to sound it out and have not been taught how to do it.
- Students have not had the opportunity to practice reading a large number of words based on the beginning letter/sound patterns in text. As a result, they have not become automatic at recognizing those words.

Phonemic Awareness

One critical breakthrough in the reading field in the past decades is how important being able to hear and manipulate the discrete sound parts of words--phonemic awareness--is to learning to read. Most phonemic awareness is learned in the process of learning how print maps to sound in phonics instruction. However, threshold levels are necessary to learn phonics. If a child cannot tell what the last sound in *cat* is, that child is going to find it impossible to connect that sound with the written symbol *t* or to read through a word while keeping the letters and sounds in proper sequence.

Most children acquire basic phonemic awareness in kindergarten by such activities as rhyming and sound-word games. Unfortunately, about a sixth of our children have phonological wiring problems. Without assistance of about 12-14 hours (about 20 minutes a day) during the latter third of the kindergarten year, they will not acquire basic phonemic awareness. Many of these children end up in special education or Title I programs because they never were taught properly at the outset, and many others flounder with their reading problems remaining undetected. The implications are obvious--kindergarten programs must identify and assist those children who, without intervention, will have an extremely difficult time learning to read.

One reason for the growth of the whole language movement was the reality that many children never seemed able to learn phonics and decoding. Educators naturally were inclined to find other ways for them to learn to read. As mentioned earlier, these other ways (predictions using context and first-letter cues) are too slow and inaccurate to replace phonological decoding, and teaching children to rely on them produced large numbers of poor readers. Now we know that one key reason why many of these students didn't learn to decode was that they could not hear and abstract the sounds. The obvious solution is to ensure that children are properly prepared to learn phonics and decoding.

Phonics Instruction

Most children need an organized program that directly teaches the basic consonant/vowel combinations and that follows principles of linguistic sequencing. Such a program introduces words based on short vowel patterns and simple consonants in early 1st grade and then follows with the more complicated vowel marker patterns (*e* controlled, *r* controlled and vowel combinations and consonant blends and digraphs, such as *ch*). Those basic high-frequency words that cannot be sounded out also need to be taught in some sequence.

The sound/symbol correspondences (and high-frequency words) that have been taught must be practiced and reinforced extensively in connected or decodable text. These materials contain good stories but are designed to contain large numbers of words easy enough for children to read because they represent the patterns previously taught. For example, changing the gingerbread man with its difficult "g" sound to the pancake man, which reinforces short and long "a" sounds. The problem is this: Many materials in use for teaching reading in 1st grade are highly predictable in their vocabulary with too few decodable words. Thus, the materials are not effective for developing independent decoding skills. The opposite problem is no better; literature books that contain too many difficult words are too hard for many children beginning to read.

Finally, activities that allow students to spell and manipulate words by sorting and changing them (change *sit* to *set* to *sat*) are an essential part of the curriculum for beginning readers. Just allowing students to look at and play with the structure of words will help many students to understand the alphabetic principle.

Studies have shown that programs incorporating these elements (as well as reading to children, discussions and language-rich activities) are about twice as effective as the more indirect or unfocused methods now in wide use.

Massive Retraining

The other major reasons for the growth of whole language approaches that de-emphasized decoding were the sterile, unproductive nature of much phonics instruction (worksheets and paucity of connected text), and the lack of motivational and authentic reading experiences accompanying skills instruction. The decoding instruction being advocated today is much more akin to a thinking phonics program that strives for understanding of the alphabetic principle and uses engaging activities to help students learn it.

Secondly, in the latest synthesis, decoding instruction is only part of a broader language arts curriculum that does stress reading to children, writing, shared reading activities and discussion of literature.

None of these ideas will be simple to implement. They call for the use of the right materials, restructuring of schools around these ideas and massive retraining of teachers. (A high percentage of those who have graduated from university teacher training programs in the past 10 years have minimal understanding of linguistics, spelling and teaching the alphabetic code.) Without aware and dedicated leadership, this problem will not be corrected.

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Put reading first: The research building blocks for teaching children to read. Jessup, MD: National Institute for Literacy at ED Publications. Ball, E. W. (1993). Reading the right way: What research and best practices say about eliminating failure among beginning readers. *School Administrator*, 9, 6-15. Juel, C. (1988). Practice daily to improve IELTS reading skills with IELTS reading Practice Test for IELTS Academic and IELTS General Training Test takers. Of course, it is normally the best of the bunch that are reviewed in the pages of *The Director*. But from time to time, Kennedy is moved to use *The Director's* precious column inches to warn readers off certain books. Her recent review of *The Leader's Edge* summed up her irritation with authors who over-promise and under-deliver. He is among the handful of writers whose work, she believes, transcends the specific interests of the management community. Caulkin also agrees that Drucker reaches out to a wider readership.