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LITERACY

# THE SCIENCE OF LEARNING TO READ



**BY LEADING EDUCATIONAL EXPERT**

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# The Science of Learning to Read

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You are likely wondering, as are many educators, about the science of reading and how do I know if the program I'm using is responsive to the science of reading. The science of reading is based on a cumulative and evolving set of evidence that is derived from studies built upon the scientific method. This evidence is useful in making decisions about what to teach and also in many cases, how to teach.

There isn't one study that conclusively establishes the evidence about how youngsters learn to read. That just isn't the way that scientific knowledge develops. Instead, in a painstaking and cumulative fashion, studies over time converge on evidence that gives us increasing confidence about how youngsters learn to read.

So, if the science of reading is cumulative and evolving, how do you know if the reading program you are using is aligned with what is known about the science of reading? Some of the knowledge about learning to read is indisputable and would be expected to be a critical part of every reading program. There are several critical features to consider:

- The science of reading has established that there are critical elements of reading instruction that contribute to the successful acquisition of reading. Sometimes these elements are referred to as "the big five"—phonological/phonemic awareness, phonics, fluency, vocabulary, and comprehension. However, these are not the only elements that contribute to reading success. Evidence also supports the reciprocal connection between learning to read and learning to spell and write.
- The emphasis on the critical elements of reading instruction may vary based on the differential needs of the reader. However, the vast majority of learners benefit from organized, deliberate, and explicit instruction in the critical elements of reading.
- The science of reading has established that the explicitness of instruction is associated with beneficial outcomes for students. This explicitness includes modeling new skills, giving students ample practice with feedback, and providing structured opportunities for review and practice.
- The ultimate goal of reading—reading comprehension—is a product of both word decoding and linguistic comprehension—both are required for youngsters to acquire meaning from text.

- ✓ Teaching youngsters phonological awareness combined with letter knowledge improves word-decoding skills. Teaching students explicitly to apply phonics rules improves their word-decoding skills. Students also need to know or acquire the meaning of these words and to understand them in texts (i.e., linguistic comprehension).

Now, there are many other issues surrounding reading instruction that are often thrown under the umbrella of science of reading but are less well established. What are some prevailing practices that are less well established or refuted?

- ✗ Telling students to “guess” a word or “look at the picture” to figure out how to decode the word. We want students to acquire and use word reading practices such as phonics, recognizing consistent word patterns, and recognizing high-frequency words to read and not to use unreliable practices such as guessing or using pictures to read the words. Rather than using pictures to read words, use pictures to build background for what students are reading, spark interest, and facilitate acquisition of meaning.
- ✗ Assuming that there is a single right way to organize the sequence of phonics rules “or a set amount of time that is needed” to ensure that students are effective and efficient word decoders.

In summary, the science of reading is a set of evidence we have accumulated about learning to read that must be hardwired into the program.

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## Research

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