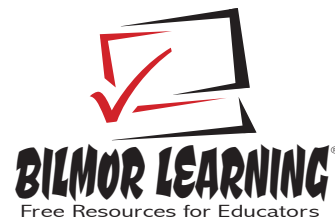


Scientific Reading Instruction



In 1999, the **National Reading Panel** was convened by Congress to review all the available research on how children learn to read (over 100,000 studies). The goals were to determine the most effective evidence-based methods for teaching children to read, to describe which methods of reading instruction were ready for use in the classroom, and to recommend ways of getting this information to schools.

In their final report (released in 2000), the Panel's analysis made it clear that the best approach to reading instruction was one that incorporated:

- Explicit instruction in **phonemic awareness**
- Systematic **phonics** instruction
- Methods to improve **fluency**
- Increased emphasis on **vocabulary**
- Ways to enhance **comprehension**

Here's a closer look at each of these essential components:

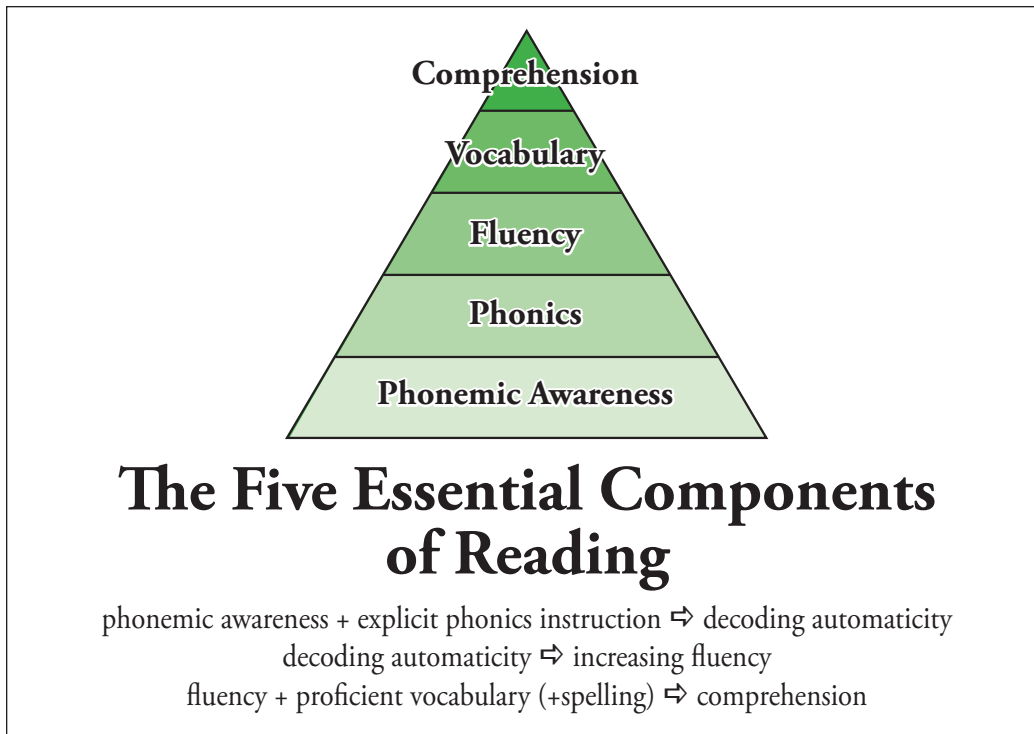
Phonemic awareness is the knowledge that spoken words can be broken apart into smaller segments of sound known as phonemes. Children who are read to at home, especially with material that rhymes, often develop the basis of phonemic awareness early on. However, children who are not read to often must be taught that words can be broken into smaller sounds.

Phonics is the knowledge that letters of the alphabet represent phonemes and that these sounds are blended together to form written words. Readers who are skilled in phonics can sound out words they haven't seen before, without first having to memorize them.

Fluency is the ability to recognize words easily, read with greater speed, accuracy, and expression, and with increased understanding of what is read. Children can gain fluency by practicing reading until the process becomes automatic.

Vocabulary is the body of words used in a particular language (in this case, English). Teaching new vocabulary words, either as they appear in text or by introducing new words separately, enhances a student's reading ability.

Comprehension is the capability of understanding what is read. One common reading comprehension strategy is to have students summarize what they have read in order to gain a better understanding of the material.



These five components identified by the National Reading Panel form the essential core of **scientific reading instruction**. (Note: Variations include “the science of reading,” “scientifically-based reading,” “science-based reading,” and similar programs.)

It’s important to note that later research (Mehta et al., 2005) indicates Spelling also plays a vital role in reading (beginning in about third grade). Contrary to the Panel’s assumptions, Spelling does not automatically improve as students become better readers. This “six component” approach has been gaining popularity in some states.

Finally, an additional key finding of the National Reading Panel was that “guided oral reading” is a very effective strategy, especially in the lower grades. **Guided Reading** is a structured approach to reading instruction, and adding an oral (read aloud) component allows students to get immediate guidance and feedback from the teacher or other skilled readers. This combination of practice and feedback has been shown to enhance reading fluency.

Note: Some proponents of Arkansas’ “Science of Reading” initiative have attempted to apply the research in a linear fashion, insisting that students must not be allowed to start reading books until they have mastered letter recognition and decoding. This interpretation is not supported by the research and ignores the importance of self-motivation in learning to read.

 Mehta, P. D., Foorman, B. R., Branum-Martin, L., & Taylor, W. P. (2005). *Literacy as a unidimensional construct: Validation, sources of influence and implications in a longitudinal study in grades 1–4*. *Scientific Studies of Reading*, 9(2), pp. 85–116.

National Reading Panel. (2013). Eunice Kennedy Shriver National Institute of Child Health and Human Development. Retrieved 9 April 2018.

National Reading Panel. (2000). *Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction*. Washington, DC: National Institute of Child Health and Human Development.