

Better Instruction for Struggling Readers

In Manitoba, we still use the three cueing systems model to help children acquire basic reading skills. It was first proposed in the 1960s, and was a major part of Ken Goodman's *Whole Language* method. See the excerpt below for what is promoted in the Manitoba ELA curriculum:

Kindergarten to Grade 4 English Language Arts: A Foundation for Implementation

Implementation Overview: K-4

Literacy Learning Through the Six Language Arts - Part 3

Language Cueing Systems

Each of the language arts is governed by various cueing systems. Students make meaning by combining their background knowledge with their use of cueing systems. In order to communicate, students need to learn how to maximize their use of linguistic and textual cues.

Semantic Cues

Semantic cues refer to the meaning in language that assists in comprehending texts, including words, speech, signs, symbols, and other meaning-bearing forms. Semantic cues involve the learners' prior knowledge of language, text, and visual media, and their prior life experiences. Many of the conventions of visual media fall under the umbrella of semantic cues. Teachers can scaffold students' use of semantic knowledge by relating new concepts to concepts already familiar to the students. Gradually, students independently relate new information to what is known and personally meaningful.

Syntactic Cues

Syntactic cues involve word order, rules and patterns of language (grammar), and punctuation. For example, the position a word holds in a sentence will cue the listener or reader as to whether the word is a noun or a verb. Conversely, listeners and readers use their intuitive knowledge of grammar to predict what words are likely to appear next. Oral punctuation provides cues to meaning through rhythm and flow, pauses, inflection, and voice modulation.

Graphophonic Cues

Graphophonic cues involve the letter-sound or sound-symbol relationships of language. Readers identifying unknown words by relating speech sounds to letters or letter patterns are using graphophonic cues. This process is often called decoding. Decoding is not, as the word may imply, a mechanical process but an essential means of making meaning. Graphophonic cues are used to support semantic, syntactic, and pragmatic cues to help readers determine if a word is logical or makes sense. In early literacy development, some students over-rely on graphophonic cues and attempt to sound out every word. They need to be encouraged to think about what word would make sense and fit in the sentence pattern or context.

According to Dr. David Kilpatrick (2015), the *three cueing systems model*, based on the psycholinguistic guessing game theory of reading, does not address the needs of struggling readers. It may actually be counterproductive with such students. It simply reinforces the kinds of habits that naturally occur among children who struggle in reading. Both *Reading Recovery* and *Leveled Literacy Intervention* use the three cueing systems model. Explore the reasons below for why the three cueing systems model is insufficient to help struggling readers.

- **Weak readers, not skilled readers, rely heavily on context.** This is likely due to their limited pool of familiar words as well as their poor phonic decoding skills. About 75% of students will learn to read no matter how unhelpful the instruction. But if weak readers are encouraged to use weak-reader-style strategies (i.e., contextual guessing and not focusing on the precise spelling patterns within words), they will fail to become proficient readers.
- **Guessing words from context is not as efficient as phonic decoding.** While contextual guessing facilitates the identification of unfamiliar words, in most cases it is less efficient than sounding out unknown words. Skilled readers can identify unfamiliar words with a high degree of accuracy by sounding them out, even irregular words. By contrast, even proficient readers are not skilled at correctly guessing words from context. The accuracy rate is only about 25%. On the other hand, when skilled readers sound out unfamiliar words they have about an 80% to 90% accuracy rate.
- **Skilled word recognition does not require context.** The three cueing systems model claims that "semantic context" is the most prominent of the three cueing systems. However, literally hundreds of studies have demonstrated that skilled readers instantly and effortlessly recognize any one of the thousands of written words they know when those words are presented in isolation. For skilled readers, context is therefore not a primary factor in recognizing words. It is required to grasp the meaning of words with multiple meanings. Nevertheless, context is not required to recognize familiar words. Moreover, research indicates that when we see a word, the areas of the brain responsible for orthography (familiar spellings) and phonology (pronunciation) activate sooner than the areas responsible for the semantic system (meaning). Therefore, readers recognize a word's spelling and its pronunciation before recognizing its meaning.
- **Semantic errors are not a sign of better reading development than phonetic errors.** The three cueing systems approach relies heavily on "miscue analysis." It proposes that when a child misreads a word by substituting another word that is similar in meaning, this demonstrates a better use of context and signifies superior reading development than making a phonetic reading error. Yet, studies have consistently shown that poor readers are more likely to make semantic errors (i.e., words that fit the context but are not spelled like the word they are trying to read). As reading skills improve, the reading errors of weak readers become more phonetically oriented and less semantically oriented. This is precisely the opposite of what the three cueing systems approach proposes.

- **One of the three cues in the three cueing model is not related to word reading.** In the model, one of the three cues used to identify words is syntactic information. Yet research has shown that syntactic skills do not distinguish good word-level readers from poor word-level readers. Syntax is essential for comprehension, not for word-reading development.

Instead of the three-cueing systems model, Dr. Kilpatrick advocates for developing “orthographic mapping” in struggling readers, which facilitates the development of fluent word recognition skills. He states that the *Phonics Approach* to beginning reading instruction has consistently demonstrated superior outcomes in word-level reading and reading comprehension as compared to the *Whole-Word* and *Whole Language* approaches. Nevertheless, while phonics helps weak readers identify unfamiliar words, it does not by itself necessarily promote instant word recognition, nor does it close the gap between weak readers and their peers in a sizable proportion of cases. Even multisensory phonics methods, such as the traditional *Orton-Gillingham* and *Wilson* methods, display mixed results in research. They may help to establish better decoding skills, but fail to show significant gains in word recognition and reading fluency.

Instead, after examining interventions that produce marked gains in reading of 12 to 25 standard score points for struggling readers, Dr. Kilpatrick discovered three essential ingredients to effective reading interventions. Together, they facilitate “orthographic mapping” (i.e., the means by which readers turn unfamiliar written words into familiar and instantly recognizable sight words). Every successful intervention contained the following three elements: (1) they corrected the student’s phonological awareness difficulties (e.g., blending & segmenting) and taught phonemic awareness to the advanced level (e.g., manipulating phonemes within words, such as deleting, substituting, and occasionally reversing phonemes), (2) they provided phonic decoding instruction and/or reinforcement, and (3) they provided ample opportunities to apply these developing skills to reading connected text (i.e., authentic reading).

To help prevent reading problems, efforts must begin early on at Tier 1. For example, the National Reading Panel (2000) found that training kindergartners and first graders in phonemic awareness skills, along with explicit and systematic phonics instruction, substantially reduced the percentage of students who displayed reading difficulties. Subsequent reports in other parts of the world had similar findings. In addition, Ehri (2014) found that teaching sound-letter associations is easier for students when using embedded picture mnemonics (e.g., *Itchy’s Alphabet* and *Letterland* are two programs that use this). In addition, Dr. Kilpatrick’s *Equipped for Reading Success* program may be advantageous to teach phonological awareness skills up to the advanced level because it is based on all of the latest brain research on how to promote orthographic mapping.

For Tier 2 and 3 interventions, programs that have shown good results include the *Lindamood Phoneme Sequencing Program* (LiPS), *Phono-Graphix* (www.phono-graphix.com), *Discover Reading* (www.readingfoundation.com), and *Read-Write-Type* (www.talkingfingers.com). Dr. Kilpatrick reviewed the literature on orthographic knowledge and did not find it predicted reading achievement. Nevertheless, he did not examine any research on enhancing orthographic working memory, which makes more of a difference according to research by Dr. Virginia Berninger. Moreover, as an extension of the LiPS program, Nanci Bell (co-founder of the Lindamood-Bell Learning Centers) found that her *Seeing Stars* program was better for developing word recognition and reading fluency. The program includes advanced sound/symbol imagery with air-writing to boost orthographic processing in working memory, phonetic decoding, and extensive sight word training.

References

Bell, Nanci (2013). *Seeing Stars: Symbol Imagery for Phonological and Orthographic Processing in Reading and Spelling* (2nd Ed.). Avila Beach, California: Gander Publishing.

Ehri, L. C. (2014). Orthographic Mapping in the Acquisition of Sight Word Reading, Spelling Memory, and Vocabulary Learning. *Scientific Studies of Reading*, 18:5–21.

Kilpatrick, D. A. (2015). *Essentials of Assessing, Preventing, and Overcoming Reading Difficulties*. Hoboken, New Jersey: John Wiley & Sons.