



The Cornerstones of Reading Comprehension: Teaching for Vocabulary and Text Understanding

The central objective of reading is to comprehend what is being read. Though often viewed as only a facet of reading, related to but also distinguished from aspects such as fluency and phonemic awareness, most would agree with Durkin’s (1993) assessment that reading comprehension is the “essence of reading”—so crucial to future learning that lesson designs, strategies, and assessment tools should address and reflect reading comprehension as a part of every subject.

From the outset, it is clear that a child’s exposure and experience with books and reading are critical factors. However, this conventional piece of wisdom, for all its merit, was misconstrued for many years, resulting in calls to “just read” that echoed throughout schools in this and other nations. The data, analyzed in multiple research meta-analyses (Fukkink & de Glopper, 1998; Klesius & Searls, 1990; Rosenshine & Meister, 1994; Rosenshine, Meister, & Chapman, 1996; Stahl & Fairbanks, 1986) and in the extensive review *Teaching Children to Read* (National Research Panel [NRP], 2000), indicates that there is much more to helping children learn to read—there are numerous things we can do to further a reader’s arsenal of tools for full comprehension as she moves through the elementary years and beyond.

Cornerstones of reading comprehension

Analyses of research findings reveal that if a reader (student) is to become very good at comprehending (i.e., understanding and making meaning of) what he reads he must meet two principal learning requirements. He must: (1.) know words; and (2.) be able to reason with physical text. The former is referred to in related literature as *vocabulary*, and the latter as *text comprehension*. These words sound simple enough on the surface. However, as the *two cornerstone requirements of an area as complex and elusive as reading comprehension*, both harbor deep and intermingled implications in terms of how the reader processes and learns information, and significant challenges in terms of how we teach for this learning. Regardless, they are the most desired objectives if we seek to help students improve their reading comprehension. They likewise bear meaning that defines our instructional designs and our roles as designers and teachers. We turn first to the multitude of tiny brush marks—the words themselves—before turning attention to the bigger picture.

For over sixty years (Davis, 1942), we have had clear evidence that reading comprehension is primarily contingent on two related “skills” —word knowledge (vocabulary) and reasoning in reading (text comprehension).

Some things hold forth under time and scrutiny; the notion that word vocabulary is directly related to comprehension still remains virtually unchallenged.

Vocabulary for reading comprehension

Vocabulary, and our approach to vocabulary instruction, plays an important role in readers' abilities to understand the reading process and to effectively apply the complex skills necessary to understand what is read.

"Growth in reading power means ... continuous enriching and enlarging of the reading vocabulary and increasing clarity of discrimination in appreciation of word values" (Whipple, 1925, p.76).

Analyses of studies that dealt with reading vocabulary (i.e., vocabulary contained in reading and related to reading comprehension) revealed a variety of specific instructional strategies that produced effective gains in readers' acquisition and understandings of word meaning. These strategies can be generally classified into three categories. Instructionally, we should employ:

Multiple approaches toward acquiring and understanding word meanings. Explicit instructional approaches where the reader was directly given definitions and specific characteristics and uses of words often proved effective (Dole, Sloan, & Trathen, 1995; Rinalidi, Sells, & McLaughlin, 1997; White, Graves, & Slater, 1990). When the purpose of understanding vocabulary was to strengthen reading comprehension, gains were most pronounced when vocabulary instruction was tied to the specific materials being read, particularly when employed prior to reading (Brett, Rothlein, & Hurley, 1996; Carney, Anderson, Blackburn, & Blessings, 1984; Medo & Ryder, 1993; Wixson, 1986). Implicit approaches, such as providing numerous opportunities for the reader to gain exposure to the words she needed to learn, were similarly effective (see *incidental learning* in recommendation three). Likewise, research reviews have drawn distinctions between methods that focused on practice that improved a reader's *capacity* by helping to make reading automatic and those that encouraged the reader to *associate* or draw connections during reading between word clues or words they know and words they do not know. Both were effective, the former mostly evidenced through studies dealing with very early elementary and preschool children (see [Improving Reading Comprehension: Making the Oral Reading Connection in the Early Grades](#)), and the latter with students ranging in age from 8 to 15 (Levin, Levin, Glasman, & Nordwall, 1992; Margosein, Pascarella, & Pflaum, 1982; McGivern & Levin, 1983). Significantly, "multiple" strategies used in isolation (i.e., stacked, sequentially, one at a time, etc.) were in large part *not effective*. We must use multiple approaches that employ several or many strategies *in tandem or in support of one another* for significant learning gains to result. Computer and other multimedia methods were useful in this sense, by increasing both the speed and the variety (see second recommendation) of the reader's access to sources that utilized target words in special contexts (see third recommendation).

Repetition and restructured exposure of readers to key word meanings. Instructionally, we ensure repetition by providing the reader with opportunities to repeatedly explore situations, texts, and contexts (see third recommendation) where key vocabulary words have similar and/or dissimilar meanings. The positive benefits of these types of well-planned repetitive exposures are clear (Daniels, 1994; Dole et al., 1995; Leung, 1992; Senechal, 1997). As we might

assume, repetition is especially effective when working with vocabulary items that are *likely* to appear in many contexts—a large factor in developing certain domain-specific understandings where this occurs more often than we might imagine (see [Modeling for Learning: Addressing Student Misconceptions](#)). Though many educators despair of the time consumed by this sort of repetition, they should also be aware of another key realization that stems from a synthesis of the student learning results—the highest gains in readers’ acquisition and understanding of vocabulary were made through instruction that involved multiple exposures in authentic contexts *that extended beyond single class periods*. In addition to its use in arranging new conditions for practice through repetition, effective restructuring—especially with low-achieving or at-risk students—often involved direct modification of the text materials being used (e.g., replacing hard with easy words or phrases, etc.) (Gordon, Schumm, Coffland, & Doucette, 1992; Kameenui, Carnine, & Freschi, 1982), for the purpose of transitioning toward understanding the meaning of more complex vocabulary used in original texts.

Learning through rich context. High-interest and relevant contexts contain and bestow special meaning to the key words that a reader needs to learn, and yield marked positive results (Dole et al., 1995; Kameenui et al., 1982; McKeown, Beck, Omanson, & Pople, 1985). Instructionally, in addition to directly supporting multiple instructional approaches and repetition/restructuring efforts, using rich context can encourage *incidental*—even serendipitous—vocabulary learning (e.g., learning through listening, as to a story, or a content-centered discussion in science) (Stahl, Richek, & Vandevier, 1991; Stewart, Gonzalez, & Page, 1997), the largest positive effect being specifically noted among (but undoubtedly not limited to) high-achieving readers in the 8- to 10-year-old range (Nicholson & Whyte, 1992). Additionally, interesting context is often highly motivational to the reader. It assists teachers in connecting vocabulary tasks to active engagement in content learning, touted in research literature from virtually every subject, and proven no less effective in improving acquisition and understanding of reading vocabulary (Daniels, 1994; Dickinson & Smith, 1994; Drevno, Kimball, Possi, Howard, Gardner, & Barbeta, 1994; Senechal, 1997). For a deeper analysis in one particular domain, read our article [Reading Comprehension and Historical Thinking: Classroom Realities in Building a Context Connection](#).

Age and ability level were a consideration in every case. Whether or not to use a strategy at a specific grade was not the issue so much as the manner in which it was used. An example is the appropriateness of the context or content selected for reading.

There are further age-related implications at the early elementary and preschool levels. Acquisition and understanding of word meaning begins for the very young “reader” with oral vocabulary. Words encountered in printed text are translated into speech by applying letter-sound correspondences. Text understandings are improved if the oral item is a known word in the learner’s oral

	<p>At the crossroads in grades K-2?</p> <p>Help your children transition. Read our article: Improving Reading Comprehension: Making the Oral Reading Connection in the Early Grades at (no spaces): http://www.designedinstruction.com/learningleads/oral-reading-comprehension.html</p>
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vocabulary. As such, the oral vocabulary provides the transition to the written form, and the reading vocabulary then supports the text comprehension process. Though the direct causal link is obscure, the research does show that the two are related. Read more in the article [Improving Reading Comprehension: Making the Oral Reading Connection in the Early Grades](#).

Text understanding for reading comprehension

Recent research findings strongly suggest that good reading comprehension does not result from a passive process—it is not enough to simply read more. Rather, reading comprehension is dependent on thoughtful interaction between the text and the reader. In this, the teacher plays an essential and active role in developing and implementing specific strategies that help the reader maximize her understanding, and her *ability to choose and use strategies* that fit her needs and the requirements of given texts.

“From the middle elementary years through the rest of their lives as students, children spend much of their time reading and learning information presented in text. The activity of reading to learn requires students to comprehend ... text” (Stevens, Slavin, & Farnish, 1991, p.8)

The act of comprehending another person’s printed thoughts is not a simplistic undertaking. We create meaning from detailed and analytical *interaction* with text. We create mental representations based on that interaction (Kintsch & van Dijk, 1978). Both the text itself and our prior knowledge influence those representations (Anderson & Pearson, 1984). The purpose should be to understand—to actively create this representation and put it to use (Pressley & Afflerbach, 1995).

It is a call for explicit instruction in cognitive strategies focused on text comprehension. The goal? Self-awareness and self-regulation on the part of the reader—the ability to discern his own progress in reading a text for a particular purpose, to choose and implement comprehension strategies that might prove effective, to determine their effectiveness, and to modify as needed. The teacher’s role? To guide students toward achieving that level of independence. Instructionally, we should seek to provide procedural guidance that helps students to effectively employ cognitive strategies in order to better understand what they read. Toward attaining that result with a given reader, the National Reading Panel (NRP, 2000, p. 4-40) suggested that we should employ instruction in cognitive reading strategies such as:

1. The development of an awareness and understanding of the reader’s own cognitive processes that are amenable to instruction and learning
2. A teacher guiding the reader or modeling for the reader the actions that the reader can take to enhance the comprehension processes used during reading
3. The reader practicing those strategies with the teacher assisting until the reader achieves a gradual internalization and independent mastery of those processes (Palinscar & Brown, 1984; Pressley, Almasi, Schuder, Bergman, & Kurita, 1994).

In their review of 203 studies dealing with text comprehension, the National Reading Panel (NRP, 2000, pp. 4-5, 4-42) identified 16 categories or varieties of instruction in cognitive strategies such as those described above. The team further claimed a scientific basis for concluding that 7 of these (eight if the category “multiple strategies” is included) were effective in improving comprehension for normal readers, as follows alphabetically:

Comprehension monitoring
Cooperative learning
Graphic organizers
Question answering
Question generation
Story structure
Summarization

You may be interested in **Research Précis**, related to the above cognitive strategies:

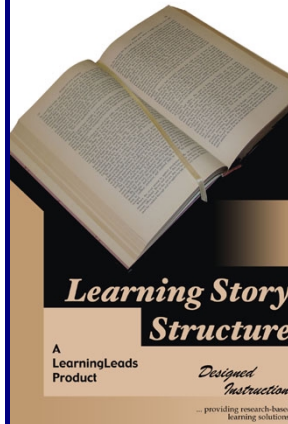
[Edition 03-1 Reading Comprehension: Question Generation](#)

[Edition 03-2 Reading Comprehension: Combining Question Generation and Multiple Strategies](#)

Visit the [Reading Comprehension](#) overview page for LearningLeads™ at:
<http://www.designedinstruction.com/learningleads/reading-comprehension.html>

Work with readers at grades 3-6?

What does the research say about the cognitive strategy instruction categories **story structure**, **graphic organizers**, and **question answering**? Get what the analyzed data tells us In **Search of Story Structure: Teaching Readers Cognitive Strategies for Story Comprehension** at:
<http://www.designedinstruction.com/learningleads/story-structure.html> (no spaces)



Or, put the data to work in **Learning Story Structure: An Instructional Guide for Improving Reading Comprehension**.

You get the detailed teacher's guide, instructional masters, student handouts, and assessment tools and rubrics. All you need is a good story!

Go to (no spaces):
<http://www.designedinstruction.com/learningleads/learning-story-structure.html>

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