

Effective Vocabulary Instruction

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Why is vocabulary instruction important?

Vocabulary is one of five core components of reading instruction that are essential to successfully teach children how to read. These core components include phonemic awareness, phonics and word study, fluency, vocabulary, and comprehension (National Reading Panel, 2000). Vocabulary knowledge is important because it encompasses all the words we must know to access our background knowledge, express our ideas and communicate effectively, and learn about new concepts. "Vocabulary is the glue that holds stories, ideas and content together... making comprehension accessible for children." (Rupley, Logan & Nichols, 1998/99). Students' word knowledge is linked strongly to academic success because students who have large vocabularies can understand new ideas and concepts more quickly than students with limited vocabularies. The high correlation in the research literature of word knowledge with reading comprehension indicates that if students do not adequately and steadily grow their vocabulary knowledge, reading comprehension will be affected (Chall & Jacobs, 2003).

There is a tremendous need for more vocabulary instruction at all grade levels by all teachers. The number of words that students need to learn is exceedingly large; on average students should add 2,000 to 3,000 new words a year to their reading vocabularies (Beck, McKeown & Kucan, 2002). For some categories of students, there are significant obstacles to developing sufficient vocabulary to be successful in school:

- **Students with limited or no knowledge of English.** Literate English (English used in textbooks and printed material) is different from spoken or conversational English. This can present challenges as these students try to make sense of the English they read, especially at the middle and high school levels.
- **Students who do not read outside of school.** The amount of time spent reading and the amount read are important. For example, a student who reads 21 minutes per day outside of school reads almost 2 million words per year. A student who reads less than a minute per day outside of school reads only 8,000 to 21,000 words per year (Texas Reading Initiative, 2002).
- **Students with reading and learning disabilities.** Weaknesses in phonemic awareness, phonics, and word analysis skills prohibit students from reading grade-level content material and the rich opportunity this offers for encountering new, content-related words that can only be found in written English.
- **Students who enter school with limited vocabulary knowledge.** At first-grade, high-performing students know about twice as many words as low-performing students, but that differential gets magnified each year, resulting in high-performing 12th grade students knowing about four times as many words as the low-performing 12th graders (Hart & Risley, 1995).

To overcome these obstacles, teachers need to engage the best kinds of vocabulary instruction and use technology that accommodates and supports that instruction.

The connection between vocabulary knowledge and reading comprehension

One of the oldest findings in educational research is the strong relationship between vocabulary knowledge and reading comprehension. Word knowledge is crucial to reading comprehension and determines how well students will be able to comprehend the texts they read in middle and high school. Comprehension is far more than recognizing words and remembering their meanings. However, if a student does not know the meanings of a sufficient proportion of the words in the text, comprehension is impossible. Vocabulary experts agree that adequate reading comprehension depends on a person already knowing between 90 and 95 percent of the words in a text (Hirsch, 2003). Knowing at least 90 percent of the words enables the reader to get the main idea from the reading and guess correctly what many of the unfamiliar words mean, which will help them learn new words. Readers who

do not recognize at least 90 percent of the words will not only have difficulty comprehending the text, but they will miss out on the opportunity to learn new words.

Differences between good and poor readers

Before entering school, word learning takes place through listening to those around us. Most of the words children hear that are spoken in school are words they already know, so the source for learning new words shifts to written context (from reading). Because written text does not offer features of oral language such as intonation, body language, and shared physical surroundings, it is more difficult to learn new words from reading (Beck, McKeown & Kucan, 2002).

Students vary widely in the word knowledge they bring to school. Their socioeconomic backgrounds and the language use in their homes and communities can significantly influence opportunities to expand their vocabularies. Some students have limited vocabulary knowledge as a result of a language-based learning disability. Good oral vocabulary (words we use in speaking and listening) is linked directly to later success in reading, and students who have more vocabulary knowledge in kindergarten become better readers than those who have limited vocabulary (National Institute for Literacy, 2001).

There is a significant gap in the vocabulary knowledge that some students bring to the primary grades, and that gap widens as students progress through the grades. Students who lack adequate vocabulary have difficulty getting meaning from what they read, so they read less because they find reading difficult. As a result, they learn fewer words because they are not reading widely enough to encounter and learn new words. On the other hand, students with well-developed vocabularies read more, which improves their reading skill, and they learn more words. Weak decoding skills (phonemic awareness, phonics and word study, fluency) also contribute to the gap between how much good and poor readers will read and encounter new vocabulary. Over time, poor readers fall further behind. Keith Stanovich (1986) termed this situation the "Matthew Effect" with "rich get richer, poor get poorer" consequences.

Unfortunately, research has shown that this gap continues to grow wider as students move past third grade. Jeanne Chall (1983) coined the term "fourth-grade slump" to describe the drop-off between third and fourth grade in literacy development that many teachers report.

The effect of weak decoding and fluency skills on reading and vocabulary development

A major reason for the "fourth-grade slump" may be a lack of fluency and automaticity (quick and accurate recognition, or decoding, of words and phrases). Lack of fluency tends to result ultimately in children reading less and avoiding more difficult materials (Chall & Jacobs, 1983, 2003). This has a major effect on their ability to develop new vocabulary. Research as a whole suggests that the differences in children's word knowledge are due largely to differences in the amount of text to which they are exposed (Stahl, 1999) and that students need to read gradually more difficult materials to improve vocabulary. Children with reading problems read less and vocabulary knowledge suffers. Without reading more challenging text, they cannot learn the vocabulary they need to be able to read further challenging text.

Effective Vocabulary Instruction: What the research says

In its analysis of the research on vocabulary instruction, the National Reading Panel (2000) found that there is no one best method for vocabulary instruction, and that vocabulary should be taught both directly and indirectly. Direct instruction means teaching specific words, such as pre-teaching vocabulary prior to reading a selection. It is estimated that students can be taught explicitly some 400 words per year in school (Beck, McKeown & Kucan, 2002). Another example of direct instruction involves the analysis of word roots and affixes (suffixes and prefixes). However, one cannot teach students all of the words they need to learn. Vocabulary instruction must therefore also include indirect instruction methods, such as exposing students to lots of new words and having them read a lot. Indirect instruction also includes helping students develop an appreciation for words and experience enjoyment and satisfaction in their use (Baumann, Kame'enui & Ash, 2003).

In its executive summary, the National Reading Panel summed up its findings as follows:

"The studies reviewed suggest that vocabulary instruction does lead to gains in comprehension, but that the methods must be appropriate to the age and ability of the reader. The use of computers in vocabulary instruction was found to be more effective than some traditional methods in a few studies. It is clearly emerging as a potentially valuable aid to classroom teachers in the area of vocabulary instruction. Vocabulary also can be learned incidentally in the context of storybook reading or in listening to others. Learning words before reading a text also is helpful. Techniques such as task restructuring and repeated exposure (including having the student encounter words in various contexts) appear to enhance vocabulary development. In addition, substituting easy words for more difficult words can assist low-achieving students".

Overview of Vocabulary Instruction Strategies

Vocabulary instruction experts all recommend a multi-component approach to developing vocabulary knowledge. Graves (2000) has advocated a four-part program that includes wide reading, teaching individual words, teaching word learning strategies, and fostering word consciousness. Stahl's model (1999) sees vocabulary instruction as an ongoing process that involves using different approaches:

1. Include both definitional information and contextual information about each word's meaning.
2. Involve children more actively in word learning.
3. Provide multiple exposures to meaningful information about the word.

The TRA (Teacher Reading Academy, 2002) professional development materials were developed by the University of Texas Center for Reading and Language Arts in Austin and distributed throughout the country through the federally sponsored Reading First program (part of the No Child Left Behind legislation). The TRA materials identify the following research-based components for effective vocabulary instruction:

1. Encourage wide reading
2. Expose students to high-quality oral language
3. Promote word consciousness
4. Teach word meaning directly
5. Teach independent word-learning strategies, including the use of context clues, the use of word parts, and the efficient use of the dictionary

The remainder of this chapter will address specific vocabulary instruction strategies.

Indirect Vocabulary Instruction

Wide reading: The more you read, the more vocabulary you learn

The amount of students' reading is strongly related to their vocabulary knowledge. Students learn new words by encountering them in text, either through their own reading or by being read to. Increasing the opportunities for such encounters improves students' vocabulary knowledge, which in turn improves their ability to read more complex text. "In short, the single most important thing you can do to improve students' vocabulary is to get them to read more." (Texas Reading Initiative, 2002). Students should read different types of text at different levels, including text that is simple and enjoyable, and some that is challenging. As noted above, students will not be able to comprehend text that has too many unfamiliar words (more than 10%); on the other hand, students will not encounter many new words if they read text that is below grade level.

Listening to reading aloud can be just as good a source of word meanings as reading, especially for students with learning disabilities. Stahl, Richek and Vandevier (1991) found that sixth-grade children learned word meanings from a read aloud at the same rate that children typically learned words from written context. They suggest that listening to stories can be a rich source of word learning, and listening may substitute for some of the reading that children with learning disabilities do not do.

Multiple exposure to words

The growth of word knowledge is slow and incremental, requiring multiple exposures to words (Hirsch, 2003; Stahl, 2004). This does not mean simply repeating the word and a definition or synonym, but seeing the word in different contexts. How are words learned incrementally over multiple exposures? Every time we encounter a word in context, we remember something about the word. As we encounter a word repeatedly, more and more information accumulates about that word until we have a vague notion of what it means. As we get more information we are able to define that word. "Vocabulary knowledge seems to grow gradually moving from the first meaningful exposure to a word to a full and flexible knowledge" (Stahl, 1999).

It is helpful for students to understand how they gradually learn words. Teachers should encourage students to actively construct links between new information and previously known information about a word. Being active and cognizant of this process will result in better memory about new words. Dale and O'Rourke (1986) proposed a model of four levels of word knowledge. This model should be shared with students so they can be more metacognitive (thinking about thinking) and metalinguistic (thinking about the structure of words) when learning new words:

1. I never saw it before
2. I've heard of it, but I don't know what it means
3. I recognize it in context – it has something to do with...
4. I know it

Students can use the following chart as a way to become more aware of the new words they encounter.

Student Knowledge Rating Checklist

| Vocabulary words | I can define | I have seen/heard | I don't know |
|------------------|--------------|-------------------|--------------|
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From Texas Center for Reading and Language Arts (2002). Teacher reading academy. Austin, TX: University of Texas at Austin and the Texas Education Agency.

When a student really knows a word, he knows more than the word's definition. He also knows how that word functions in different contexts. Knowledge of a word includes knowing how it sounds, how it is written, how it is used as a part of speech, and its multiple meanings (Juel & Deffes, 2004). Stahl (2003) makes the distinction between *definitional knowledge* (similar to that included in a dictionary definition), and *contextual knowledge* (understanding how a word's meaning adapts to different contexts). In order to fully learn a word and its connotations, a student needs multiple exposures to the word in different reading contexts.

Multiple exposure and importance of background knowledge

Background knowledge is a student's experience and knowledge of the world. Research has established that readers' existing knowledge is critical for them to comprehend what they read (Anderson & Pearson, 1984). More than vocabulary is needed to understand most texts. It is possible for a student to know all the words in a passage and still not make any sense of it if he has no prior knowledge of the topic. To make constructive use of vocabulary the student also needs a threshold level of knowledge about the topic. This enables him to make sense of the word combinations and choose among multiple possible word meanings (Hirsch, 2003).

People who know a great deal about a topic also know its vocabulary. "Word meanings are not just unrelated bits of information, but are part of larger knowledge structures." (Stahl, 1999). Reading comprehension