IMPROVING COMPREHENSION THROUGH VOCAB

Effective instructional strategies in grades 4–8

By **Barbara Foorman**

Children tend to learn words incidentally by communicating with members of their speech community and by reading books. So, can direct vocabulary instruction be effective?

The answer is an unequivocal *yes*.

What is vocabulary instruction?

Vocabulary instruction means teaching the meanings of words in a language; that is, the semantics, which contrasts with the phonological (i.e., sounds) and with the orthographic form (i.e., spellings) of the words. Yet the meanings, pronunciations, and written forms of words are integrated in the mental dictionary (i.e., lexicon) in our brains—so learning new words and accessing stored words is aided by reinforcing these connections.

> *When introducing academic vocabulary, it is important to provide student-friendly definitions of the target word and to apply these definitions to the context of the text.*

For example, imagine a sixth-grade teacher previewing a science text containing the word *theoretical* in the sentence "Scientists have a theoretical explanation for the existence of black holes." The teacher explains that *theoretical* comes from *theory*, which is abstract reasoning based on a system of assumptions, accepted principles, and rules to predict, analyze, and explain the nature of things. Additionally, the teacher explains that *theory* is a base word that comes from Greek and Latin and asks students to identify the suffix in *theoretical* and how the spelling and pronunciation shift when the suffix *-(c)al* is added to the base. The students write *theoretical* and the sentence from the text in their vocabulary notebook while the teacher writes the word on a sticky note and adds it to the *-al* morpheme tree posted on the wall. The teacher has demonstrated evidence-based, integrated instructional practices that will promote not only vocabulary learning but also reading comprehension.

What are effective strategies for teaching vocabulary?

In 2014, the What Works Clearinghouse published the practice guide *Teaching Academic Content and Literacy to English Learners in Elementary and Middle School*. The systematic review of vocabulary studies up to that point revealed strong evidence for the following first recommendation: Teach a set of academic vocabulary words intensively across several days using a variety of instructional activities.

Academic vocabulary refers to the words used at school and in text. Academic vocabulary is typically broken into two categories: general vocabulary and domain-specific vocabulary. General vocabulary words, such as *argument*, *deliberate*, *environment*, *factor*, *hypothesize*, *investigate*, and *tangential* are used in writing across disciplines, whereas domain-specific vocabulary words are unique to a specific discipline. For example, *hypotenuse* is linked to mathematics and *atom* is linked to physics.

The practice guide recommends the following instructional activities to carry out this first recommendation:

- Choose a brief, engaging piece of informational text that includes academic vocabulary as a platform for intensive academic vocabulary instruction.
- Choose a small set of academic vocabulary for in-depth instruction.
- Teach academic vocabulary in depth using multiple modalities (writing, speaking, and listening).
- Teach word-learning strategies to help students independently figure out the meaning of words.

Selecting text with a small number of academic words related to a unit of study is critically important to meeting the objective of the first recommendation. A program for grades 4–8 that meets this objective is Word Generation. Word Generation contains engaging text with a variety of target academic words in thematic units that contain ideas that can be discussed from a variety of perspectives.

In grades 4–5, Word Generation introduces 5–10 words in social-civic texts in units lasting 10 days that integrate reading, writing, and discussion. In grades 6–8, Word Generation integrates academic vocabulary into six-week units in social studies and science classrooms.

As in other vocabulary studies in middle schools, researchers found significant impacts after one and two years on taught vocabulary in Word Generation classrooms compared to non–Word Generation classrooms. In the upper elementary grades, significant impacts on academic language skills, perspective taking, and deep reading comprehension were apparent after two years of Word Generation. Moreover, as in other vocabulary studies, effects were stronger in high-implementing Word Generation classrooms.

When introducing academic vocabulary, it is important to provide student-friendly definitions of the target word and to apply these definitions to the context of the text. For example, when reading a biography of Marie Curie, a student may come across the word *career* in the sentence "Marie decided on a career in medicine." A student-friendly definition of *career* might be: choice of how to make a living; one's work. In addition to defining the target word, nonexamples and concrete representations can be provided. A nonexample of *career* is play; a concrete representation might include a word map with synonyms, antonyms, examples, and nonexamples of *career*. Target words can be used in writing activities and games such as crossword puzzles.

To help students independently figure out the meaning of words, look at context clues, word parts, and cognates. For example, in a fifth-grade lesson from Word Knowledge Instruction, students read a short passage containing target words ending in *-sion*. One word in the passage was *persuasion*, meaning "the act of convincing someone to do something." The context clue was that the main character in the story was giving his mother reasons why she should allow him to go to bed later. The teacher explains that the word part—the suffix *-sion*—is added to the verb and base word *persuade* to give the noun *persuasion*. For the Spanish-speaking students in her class, the teacher points out that *persuasión* in Spanish and *persuasion* in English are cognates and share the same Latin root. In Spanish, the

verb *persuadir* is changed to the noun *persuasión* by dropping *-dir* and adding the suffix *-sión*.

To help students remember the target words ending in *-sion*, the teacher asks them to write the base word plus suffix, complete sentences using the target words, match the targets with their synonym, write sentences using the target words, and complete a crossword puzzle containing the target words.

Challenges to learning new vocabulary

The researchers who conducted the studies on the effective strategies described above encountered a common problem: Students learned the target words in familiar text, but learning did not improve comprehension of new text.

There are several reasons for this. First, words' multiple meanings (semantics), pronunciations (phonology), and written forms (orthography) need to be taught and integrated in activities that are engaging and active and require deep processing if target vocabulary words are to transfer to understanding new text. Teachers will want to check students' writing carefully to see that spellings, definitions, and sentences are correct. Students may be able to read the target word correctly aloud (i.e., decoding) but struggle with correctly writing the word in isolation and in sentences (i.e., encoding).

Second, students have multiple vocabularies—the receptive or recognition vocabulary they encounter while reading and the expressive or productive vocabulary they use in speaking or writing. Teachers will want to connect words encountered while reading with those discussed in conversation and used in writing.

Finally, wide reading is a necessary but not sufficient tool to connect reading vocabulary to improved comprehension. Teaching effective vocabulary strategies ensures that this connection *causes* reading comprehension to improve. ◼

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ILA DIGITAL EVENT

Barbara Foorman hosted an ILA Intensive in January on Assessing and Addressing the Needs of Young Readers. The Intensive featured keynotes from **Donna M. Scanlon**, **Julie A. Washington**, and **Sharon Vaughn**, as well as sessions from **Stephanie Al Otaiba**, **Steve Amendum**, **Laura Ascenzi-Moreno**, **Young-Suk Kim**, and **Kathleen Rastle**. To register for on-demand access, visit **ila.digitellinc.com/ila/sessions/1422/view.**

FURTHER READING

■ Baker, S., Lesaux, N., Jayanthi, M., Dimino, J., Proctor, C.P., Morris, J., Gersten, R., Haymond, K., Kieffer, M.J., Linan-Thompson, S., & Newman-Gonchar, R. (2014). *Teaching academic content and literacy to English learners in elementary and middle school* (NCEE 2014-4012). National Center for Education Evaluation and Regional Assistance (NCEE), Institute of Education Sciences, U.S. Department of Education. ies.ed.gov/ncee/wwc/Docs/practiceguide/english_learners_pg_040114.pdf

■ Beck, I., McKeown, M., Kucan, L. (2008). *Creating robust vocabulary*. Guilford Press.

■ Foorman, B., Herrera, S., Dombek, J., Wood, C., Gaughn, L., & Dougherty-Underwood, L. (2020). *The impact of word knowledge instruction on literacy outcomes in grade 5*. (REL 2020-083). U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Southeast. ies.ed.gov/ncee/edlabs/regions/southeast/pdf/REL_2021083.pdf

■ Texas Center for Learning Disabilities. *Five research-based ways to teach vocabulary*. texasldcenter.org/teachers-corner/five-research-based-ways-to-teach-vocabulary

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