Teaching Academic and Discipline-Specific Vocabulary

Excerpt from Transformational Literacy

Researchers agree that a vocabulary deficiency is one of the primary causes of the achievement gap. It seems obvious that students who know more words are better able to comprehend texts and disciplinary content, yet most schools do not have a systematic focus on teaching vocabulary (National Governors Association Center for Best Practices, Council of Chief State School Officers, 2010, appendix A, p. 32). The best vocabulary learning is contextualized—students learn related sets of words from reading, listening, talking, and writing about topics and concepts. The more vocabulary a student is exposed to during learning, the more likely it is for that student to become a better reader. Conversely, the better a student is at reading, the more likely it is for him or her to learn vocabulary.

Isabel l. Beck, Margaret G. McKeown, and Linda Kucan (2013) describe three tiers of vocabulary words. In the first tier are the words found in everyday speech and commonly learned through conversations and in school in early grades (e.g., friend, nice, winter, community). Unless a student is an English language learner, it is unlikely that instruction in tier-one words is needed.

In the second tier are the words most often found in texts, particularly academic texts of all types (e.g., relative, vary, formulate, calibrate). These words, also known as academic vocabulary, are much less likely to be found in everyday speech, even the speech of college-educated adults. Helping students learn this type of vocabulary is critical to college and career readiness.

In the third tier are the discipline-specific words most often found in informational passages rather than in literature. They are specific to a field of study (e.g., morphology, acropolis, ventricles) and key to understanding a new concept within the text. Because of their specificity, tier-three words are often explicitly defined in text and repeatedly used. Students tend to learn these words when studying a particular topic, but their utility is somewhat limited. They are highly relevant to the learning at hand, but they aren’t often transferrable to the next unit or text.

<table>
<thead>
<tr>
<th>Three Tiers of Vocabulary</th>
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<tbody>
<tr>
<td><strong>Tier One: Basic Vocabulary</strong></td>
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<tr>
<td>• Words found in everyday speech that rarely need teaching</td>
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<tr>
<td><strong>Tier Two: Academic Vocabulary</strong></td>
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<td>• High-frequency words that are found in academic texts across a variety of domains but that are unlikely to occur in everyday speech</td>
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<tr>
<td><strong>Tier Three: Discipline-Specific Vocabulary</strong></td>
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<tr>
<td>• Low-frequency words specific to a particular field of study and often found in informational texts about that subject</td>
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It is simple to recognize the importance of teaching discipline-related vocabulary while reflecting on a particular topic of study. For example, a teacher helping students grapple with the importance of protecting a watershed knows that students need to know and be able to use science words such as habitat. But what is less clear and more central to student development is the need to address the academic vocabulary found in watershed-related texts. Consider the following short passage from the website of the nonprofit organization The Center for Watershed Protection:

During the land development process, forests are cleared, soils are compacted, natural drainage patterns are altered, and impervious surfaces, such as roads, buildings, and parking lots, are created. These changes increase the amount of polluted runoff that reaches our local waterways. As a result, stream banks begin to erode, critical in-stream habitats are washed away or filled in with sediment, downstream flooding increases, and water becomes too polluted to support sensitive fish and bugs or recreational activities. (Center for Watershed Protection, nd)

To fully comprehend this passage, students must know the contextualized meaning of the words altered, impervious, and sensitive. (Certainly the author of this passage does not mean to suggest the fish are crying!) Therefore, the Common Core emphasizes the teaching of tier-two (academic) vocabulary in addition to tier-three (discipline-specific) vocabulary.

Vocabulary learning can be incidental—the result of reading closely, using morphology, using context clues, and writing about and discussing complex texts—or it can be explicitly taught. Both are valuable in terms of addressing students’ vocabulary development needs.

**Support Incidental Vocabulary Learning**

Incidental vocabulary instruction occurs when tuned-in readers notice new words and words used in new ways. The word sensitive in the watershed passage might be learned incidentally when a reader stops to think, “Huh? Sensitive? Do fish have their feelings easily hurt? It must mean something else here, like their bodies can’t stand the pollution.” Incidental vocabulary learning can also occur when teachers support the use of word-solving techniques to help readers notice new words or words used in new ways. For example, when reading the watershed passage with a class, a teacher might ask, “Did you see the word impervious used to describe roads, buildings, and parking lots? I know the prefix im- means not, so not pervious. If I told you the root word pervious comes from the Latin for through, could you use the context of roads, buildings, and parking lots to figure out what impervious means?”

A steady diet of incidental vocabulary learning can occur when teachers help students read and reread challenging texts, and it is an efficient way to ensure students learn more academic vocabulary than they already know.

**Teach Some Vocabulary with Direct Instruction**

Direct vocabulary instruction occurs when teachers use strategies and protocols, such as Interactive Word Walls (see “Strategy Close Up: Interactive Word Wall” for more information), vocabulary notebooks or journals, Frayer model graphic organizers (see figure 7.2), concept definition maps, drawing or acting out words, flash-cards, and other word exploration and storage techniques to help learners understand and remember new words.
Deciding what words to teach, either directly or indirectly, is an important aspect of helping students develop vocabulary. Read the students’ text closely yourself and think about the following points:

- What words are critical to students’ understanding of these texts?
- What words are they likely not to know?
- Which words should I teach them before reading (be cautious here—don’t rob them of the opportunity to practice learning words from context)?
- Which words can they learn by inferring from context?
- Which words present the opportunity to teach word parts (prefixes, root words, suffixes)?
- Which words can just be mentioned and which should they store through a strategy for long-term use?
- Which words can I use to help students develop webs of word meaning? (For example, teaching the word *altered* provides the opportunity to teach *alternate* and *alteration*.)

One way to teach vocabulary is through text-dependent questions. Teachers can ask questions pertaining to vocabulary usage in text, and they can also use vocabulary words in their questions.