

FEATURE ARTICLES



What's IN a Word?

Teaching Vocabulary from the Inside Out

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First, my apologies to Shakespeare. In the title of this article, I've played with a famous quote from *Romeo and Juliet*:
"What's in a name? That which we call a rose By any other word would smell as sweet."
(Act 2, scene 2)

But think about it for a moment, and you'll see the connection to vocabulary learning. First of all, the word is not the thing. It's a label for the thing. This point is an important one for those who want to foster students' vocabulary development. Good word learning activities focus on the concepts that words label, concepts that are "inside" the words.

Here's another way to think about what's "in" a word. Most multisyllabic words in English contain parts that have meaning (like *multi-* in *multisyllabic*). These semantic units, whether prefixes, suffixes, or base word parts, become increasingly important as students encounter more sophisticated vocabulary. So good word learning activities should also focus on helping students identify and learn to use these parts within words.

Attention to both of these "in-word" issues can help teachers develop effective approaches to vocabulary learning. And we know that this is important. An extensive vocabulary helps us share our thoughts and feelings with others more effectively. Moreover, an extensive vocabulary is central to reading comprehension (National Reading Panel, 2000). In fact, decades of research has consistently found a significant connection between vocabulary knowledge, reading comprehension, and academic success (Baumann & Kameenui, 2002). In this article, I present several important principles of word learning and then describe effective learning activities for both concept development and instruction and practice in using word parts.

FIVE PRINCIPLES OF WORD LEARNING

Until very recently, most formal vocabulary instruction has been limited to the introduction of key words before

reading a new text. Yet the National Reading Panel (NRP; 2000) found that vocabulary is learned both indirectly and directly and that dependence on only one instructional method does not result in optimal vocabulary growth. We must do more. Attention to several important principles (Rasinski & Padak, 2004) can help teachers plan effective vocabulary programs.

1. Vocabulary instruction should be integrative (Nagy, 1988). To learn new words—really learn them—requires students to connect new and existing knowledge. Teachers must find ways to focus on this connection.
2. Vocabulary should be learned deeply through active processing and discussion (Stahl, 1986). Making connections or integrative word learning involves deep thinking and results in concept learning. Extended discussions can support this sort of learning.
3. Vocabulary instruction needs to include repetition (Blachowicz & Fisher, 2002; Nagy, 1988; Stahl, 1986). In order to learn new words or concepts, students must experience them in many contexts.
4. Words are learned best when presented meaningfully (Nagy, 1988) with attention to definitions (Stahl, 1986). Effective word learning entails using new words in meaningful contexts and thinking about them in meaningful ways. This enhances understanding and allows students to develop flexible control over word use. Attention to definitions adds power to this word learning.
5. Word learning is and should be both indirect and direct (NRP, 2000). We learn most vocabulary indirectly or spontaneously through discussion, reading, or listening (Lehr, Osborn & Hiebert, 2005). So teacher read-alouds and students' independent reading are legitimate aspects of a vocabulary program. Direct teaching of key words can be worthwhile, but students can only learn 8-10 new words each week in this manner (Stahl & Fairbanks, 1986). Yet, as Graves (2006) notes, just

because we can't teach all the words doesn't mean that we shouldn't teach any of them. The point here is to be judicious in the selection of words for direct focus.

VOCABULARY AND CONCEPT LEARNING

We ordinarily think of concept learning as an issue for older students. In fact, most researchers believe that children naturally add between 2,000 to 3,000 new words each year, yet by fifth grade they will meet 10,000 new words in their reading alone (Nagy & Anderson, 1984). Many of these words represent challenging and unfamiliar content area concepts. An extensive vocabulary helps students read fluently, comprehend, discuss what they have read, and learn.

Yet conceptual knowledge is equally important for beginning readers. Meaning does not automatically follow successful decoding if the concept related to the decoded word is not part of a child's vocabulary. Sadly, we know that students who begin school with smaller vocabularies are at academic disadvantages that most never overcome (Hart & Risley, 1995, 2003). Kamil and Hiebert (2005) view vocabulary as a bridge that connects the word-level decoding process and the broader cognitive process of comprehension. This is a useful way to visualize the importance of vocabulary for young readers.

For these reasons, vocabulary plans for all students should include attention to concept development. Variations on word sorts offer an engaging and effective way to do this. Word sorts offer opportunities for students to compare and contrast words and concepts in a problem-solving, collaborative atmosphere. These ways of thinking—problem-solving, finding similarities and differences, working collaboratively—have been identified as especially powerful learning activities (Marzano, Pickering, & Pollock, 2001). Here are brief descriptions of four types of word sorts. (For additional information about them, see Rasinski & Padak, 2004.)

1. **Open Word Sorts:** The teacher presents 12-20 words from a text students will read or from texts they have already read. Students make small word cards. Then they work in pairs or small groups to categorize the words in ways that make sense to them. When they have finished, students share their groups and reasoning with the rest of the class. If first used before reading, the teacher may want to ask students to reconsider their groupings after they have read.
2. **List-Group-Label:** This is a brainstorming activity that begins with the teacher identifying a topic, perhaps from a content area or theme the class will study or has studied. Students brainstorm all the words they can think of, and the teacher lists these words on the chalkboard or chart paper. Then small groups of students make small word cards for the

brainstormed words and organize them into groups. They can also add words to the groups if additional words come to mind. The groupings can be made into semantic webs. The activity ends with groups of students sharing their work.

3. **Prevoke** (sometimes also called *Prereading Predictions* or *Predict-o-Gram*; see Billmeyer & Barton, 1998): The teacher selects 12-20 words or short phrases from a text that students will read. Students form pairs or groups of three and make a set of word cards containing the selected words. The teacher also prepares a 2- or 3-column chart for students to use in sorting the words. For younger children, columns might be labeled "people" and "places"; older students may work with columns labeled "problem" and "solution" or "setting," "plot," and "theme." Discussion follows the initial sorting. Students may re-sort the words after they have read.
4. **Possible Sentences** (Moore & Moore, 1986): This prereading content area activity begins with the teacher selecting about a dozen key words from a text, which are listed on the board. Students work in pairs or small groups to combine the words into sentences they might expect to find in the text. These are listed, and their veracity is discussed before students read. After reading, students reconsider their sentences, changing them if desired based on the text.

Good concept development activities, like those described above, help students comprehend while they learn new words. Stahl and Kapinus (1991), who found Possible Sentences more effective in both vocabulary and comprehension learning than semantic mapping, explain the relationship like this:

the group discussion appears to improve learning by having students more actively process the information about the to-be-learned words....Students think more deeply about the relations between the new words and the words they already know. These links lead to learning. (p. 43)

Vocabulary and Word Parts

Well over half of English words – nearly 75% according to some estimates – are derived from Greek or Latin. In the fifth grade, for example, 4,000 of the 10,000 words students meet are derivatives of familiar words, most of them of Greek and Latin origin (compound words and words with prefixes and suffixes). Moreover, from grades 3-9, school texts contain 88,500 word families or words and their derivatives (Nagy & Anderson, 1984).

For this reason alone, a focus on word parts, especially those of Greek and Latin origin, offers a powerful tool for teachers to nurture students' vocabulary development (Bear, Invernizzi, Templeton & Johnston, 2000; Blachowicz & Fisher, 2000; Newton & Newton, 2005;

Rasinski & Padak, 2001; Stahl, 1992). In addition, new words added to the English language in this technological age, as well as words associated with scholarly, scientific, and technical advances, are most often of Greek or Latin origin. Consequently, as students progress through school, they encounter more and more words of classical origin.

Elsewhere, my colleagues and I have described ways to address this aspect of vocabulary learning in great detail (Rasinski, Padak, Newton, & Newton, in press). In brief, teaching about word parts involves helping students learn to a) dissect words by separating them into their meaning-based parts and b) compose words based on the parts. These complementary strategies, word dissection and word composition, help students learn how word parts affect meaning.

After instruction designed to focus students' attention on a particular word part, vocabulary games can provide the extra meaningful practice students need to think deeply about their new knowledge. Here are a few such games:

Word riddles: The teacher selects several words with a related word part. For half of these, the teacher develops simple riddles for students to solve. For the other half, students work with partners to write riddles for classmates to solve. Here are two examples:

We are opposites.

One of us means "carry in."

One of us means "carry out."

We describe goods and services that countries sell or buy.

Each of us has two syllables. (import, export)

I am a verb.

I have four syllables.

I mean "to make lighter, to make less severe or easier to bear."

Medicine can help me to feel less pain. (alleviate)

WORDO: This variation of Bingo begins with a 3 X 3, 4 X 4, or 5 X 5 grid, size depending on students' ages. Students select a "free space" and mark it on their grids. The teacher selects words under study, writes them on the board, and asks students to put them on their grids in any order they wish. Then the teacher calls a clue for each word (definition, synonym, the word in "dissected" form, etc.) Students determine the word and mark it with a slip of paper, a dry bean, or another marker. When a student has all the words in a row, column, diagonal, or four corners, he or she calls out "WORDO." The teacher checks these words and declares that student the winner. Then students can clear their sheets and play another round.

Analogies: The teacher develops several analogies for students to solve. These can be made easier by

providing word banks of responses. Before their initial experience with analogies, students should understand what they are—statements about how words or concepts are related to each other, usually written as A is to B as C is to D (or sometimes A: B :: C: D). Here are samples, all using the se- word part:

_____ : segregation :: desegregate: _____

_____ : sequestered :: secure: _____

Secluded: _____ :: _____ : secretion

(word bank: desegregation, seclusion, secreted, secured, segregate, sequester)

Word Puzzles: Puzzlemaker.com, which is maintained by DiscoverySchool.com, offers an easy site for making word searches or crossword puzzles (called criss-cross puzzles). Either the teacher or groups of students can make these puzzles, which can then be cut and pasted into word processing documents.

CONCLUSION

Vocabulary is only one of the essential aspects of reading instruction identified by the NRP (2000), but it's important. Students will find a classroom environment that features collaboration and problem-solving a wonderful place for playing with words, for manipulating them and using them in a variety of ways. By thinking about word learning from the "inside out," teachers can create interesting, effective, and challenging learning activities. And this can make all the difference.

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