

Chapter 1

Getting to the Root of Word Study: Teaching Latin and Greek Word Roots in Elementary and Middle Grades

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Each Monday morning, Joanna Newton introduces her grade 2 students to a new word root. After a short discussion about the root, she tapes a sheet of butcher block paper to a counter, writes the root at the top, and places a bowl of markers next to it. Her students spend the next few days on the lookout for words that use the root. They know words from the root can appear when they read, listen, or talk to each other. They also know how to explore for new words in dictionaries and on the Internet. Each time they discover a word that fits, Joanna's students write it on the chart paper, always initialing the entry. On Friday morning, Joanna's class assembles to review the collected words. Each student explains where he or she found the word, what it means, and how the root "gives you a clue." Classmates listen carefully to these explanations, because they must decide whether the word is "real" or if they need more information to make sure.

This week the root is *tri-*. After *triplets* and *tripod*, one student, Niko (all names are pseudonyms), shares *tricentipede*. He explains that since a centipede is a bug with 100 legs, a tricentipede must be a bug with 300 legs! After considerable discussion, his classmates decide they need more evidence. They ask Niko to look for pictures of a tricentipede to prove whether or not one exists. He agrees to report back at the end of the day.

Well over half of English words—nearly 75% according to some estimates—are derived from Greek or Latin roots. Because Latin and Greek prefixes, bases, and suffixes have distinctive semantic features and consistent orthographic patterns, students who have cultivated an awareness of them can become adept at linking the pronunciation, spelling,

and meaning of many challenging words (Bear, Invernizzi, Templeton, & Johnston, 2000; Rasinski & Padak, 2008). They are thus able to coordinate sound and sense when they encounter new words.

The study of word origins and derivatives helps students grasp an essential linguistic principle: English words have a discernible logic because their meanings are historically grounded. This knowledge, used in conjunction with word analysis skills, empowers them as learners. Although no single approach to vocabulary development has conclusively been found more successful than another, researchers agree that a focus on Greek and Latin derivatives offers a powerful tool for teachers to nurture students' vocabulary development (Blachowicz & Fisher, 2000; Newton & Newton, 2005; Stahl, 1999). We believe this approach is also a powerful way to provide instruction that meets diverse student needs. English-language learners, for example, have been identified as the largest growing population in American schools (Flynn & Hill, 2005). Because so many of these children speak first languages semantically embedded in the Latin lexicon (e.g., Spanish), enhancing this linguistic connection can accelerate students' vocabulary growth (Blachowicz, Fisher, Ogle, & Watts-Taffe, 2006). Similarly, research in content area vocabulary has demonstrated the effectiveness of teaching Greek and Latin word roots, especially for struggling readers (Harmon, Hedrick, & Wood, 2005).

Moreover, as students move across grade levels, they face an "increased load of new words, new concepts, and multiple meanings" in school texts of increasing difficulty (Blachowicz & Fisher, 2000, p. 511). Nagy and Anderson (1984) estimated that in grade 5, students meet 10,000 new words in their reading alone and that school texts used in grades 3–9 contain approximately 88,500 distinct word families. Most of the new words they encounter in these texts will be of Greek and Latin origin.

Recently Blachowicz et al. (2006) called for a "comprehensive, integrated, schoolwide" approach to vocabulary instruction, one that encompasses more than a "list of words to teach at the beginning of the week" (p. 526). They urged teachers to make vocabulary a "core consideration" across grade levels and subjects, one that is based on a "common philosophy and shared practices" (p. 527). Salient components of such a program focused on fostering "word consciousness," the "intentional teaching of selected words," and teaching "generative elements of words and word-learning strategies to build independence" (p. 527). Blachowicz et al. (2006) emphasized the critical need for students to make "semantic connections among words," connections students can verbalize. They further noted that research that focuses on teaching structural analysis or

morphology has found this approach “generative in learning new words” (p. 530).

In this chapter, we present a systematic, strategy-based approach to vocabulary development based on the exploration of Greek and Latin roots as semantic units. While this approach is most effective when implemented across a school or district (Rasinski, Padak, Newton, & Newton, 2007), we present word roots and activities that individual teachers can easily use as the foundation for their classroom vocabulary instructional plan.

Vocabulary for “School” Literacy

Academic texts in general have a disproportionate number of words from Latin and Greek roots because 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, rather than Anglo-Saxon, origin. Moreover new technologies have brought us new words that expand the presence of Greek and Latin roots in the English lexicon (e.g., Internet, megabyte).

The context in which words are used provides another layer of complexity in “school” literacy. We use oral vocabulary to listen and speak, print vocabulary to read and write. Speech is contextualized language; “precision of word choice is seldom crucial in everyday conversation” (Nagy & Scott, 2000, p. 279). Written texts, on the other hand, tend to be decontextualized, so precision of word choice “is the primary communicative tool of the writer” (p. 279). Decontextualized language contains “richer vocabulary” (p. 279) and more unfamiliar words than spoken language (Cunningham, 2005). In school, most of the new vocabulary words children meet will be in decontextualized written texts, much of it in content area textbooks, so “exposure to such language is important for children’s vocabulary growth” (Nagy & Scott, 2000, p. 279).

Because learning new words in content area subjects often requires learning new concepts as well, students face additional challenges. Most content area words, for example, are “low-frequency” and “do not appear in other contexts” (Harmon et al., 2005, p. 263). Furthermore the same words may represent dissimilar concepts in different content areas: consider a “revolution” in history or in science. In addition, key content area vocabulary is often a building block for more advanced conceptual knowledge. Unlike primary-level students who can use context to determine the general meaning of a word, older students must learn

new conceptual vocabulary with enough precision to scaffold other concepts.

Although teaching and learning vocabulary for school success is a daunting prospect, decades of research have identified general principles that can guide instructional planning. In the next section, we discuss curricular issues and answers provided by research.

Research-Based Guidelines for Planning Instruction

Blachowicz and Fisher (2000) found that two decades of research has determined that vocabulary acquisition depends on active student engagement that (a) fosters an “understanding of words and ways to learn them,” (b) personalizes word learning, (c) immerses students in words, and (d) provides them with “repeated exposures” to new words through “multiple sources of information” (p. 504).

Researchers also agree that teachers need to employ a variety of methods that enhance the depth and breadth of students’ word knowledge (Blachowicz et al., 2006; Lehr, Osborn, & Hiebert, 2004), but they offer less clear-cut guidance regarding the specific words or word parts that would make up an effective vocabulary program. Most agree, for example, that some direct instruction of key words is important, but generating a widely accepted list of specific grade-level words to teach has proven elusive (Kamil & Hiebert, 2005).

Several vocabulary lists have been developed based on the frequency with which words appear in grade-level text. Marzano, Kendall, and Paynter (2005) pointed out that, although “vocabulary words are commonly thought of in terms of grade levels, there is little agreement as to what a grade-level designation signifies and how to assign grade levels to words” (p. 129). Some have called for a list of basic words that are morphologically connected to other words. Morphological analysis is an important strategy because it allows students to make connections among semantically related words or word families (Nagy, Anderson, Schommer, Scott, & Stallman, 1989; Nagy & Scott, 2000). Biemiller (2005) argued that even different student populations learn words “largely in the same order” (p. 225) and called for teaching a corpus of common root word meanings, even in primary grades.

Rather than focus on specific vocabulary words, we identify specific Greek and Latin roots that can be taught as core semantic units. These roots can be presented using the same four instructional principles highlighted above. Currently many teachers do present roots as a meaningful

strategy for vocabulary instruction; we expand its presence in the curriculum by recommending selected roots of high utility.

Our approach includes teaching generative elements of words and word-learning strategies in ways that give students the ability to learn new words independently. By separating and analyzing the meaning of a prefix, suffix, or other word root, children can often unlock the meaning of an unknown word. If we teach students that the word *tri-* means *three*, for example, they can use that information to figure out *tricycle*, *trio*, and *triplets*. When introducing the concept of *photosynthesis*, we can easily point out its roots: *photo* means *light* and *syn* means *with*. As children grapple with the complex process of how light (*photo*) is combined with (*syn*) carbon dioxide and water to make sugar, knowledge of these word roots will support their efforts.

Knowing that words can be broken down into meaning units is a powerful strategy for vocabulary development. Until recently, teaching word roots was a strategy reserved for upper grade or content area classrooms. But a growing body of research tells us that this strategy should be introduced early. In fact, by the second grade, students should be adept at using word roots as a vocabulary strategy (Biemiller, 2005).

In the next section, we share design principles that can be used to select, evaluate, or create effective vocabulary instruction. We also recommend instructional routines based on “gradual release of responsibility” (Weaver, 2002), which begins with teacher-led discussion that scaffolds increasingly independent learning. The routines were developed for a comprehensive vocabulary program, “Building Vocabulary from Word Roots,” aimed at fostering word awareness, metalinguistic knowledge, and ultimately, students filled with curiosity and joy about words (Rasinski et al., 2007).

Guidelines for Planning Instruction

First, instruction should include planned teaching of selected word roots with multiple kinds of information provided (e.g., semantic, structural) (Blachowicz et al., 2006). Research tells us that children can only learn 8–10 new words each week through direct instruction (Stahl & Fairbanks, 1986) because learning requires repetition and multiple exposures. Yet as Graves (2005) noted, just because there are many more words than we can teach doesn’t mean that we shouldn’t teach any of them. Some direct instruction is useful. Learning key word parts enables students to master new words that are semantically connected. In this way instruction

becomes efficient—by learning one word part, students have clues to meaning for all the words that contain it. So, we recommend that teachers begin the week by inviting students to “meet a root” like Joanna did with her second graders: Select a root to introduce and discuss through direct instruction. (See p. 17, this chapter, for specific instructions for this activity.)

Because word learning is a matter of knowing “how” (procedural) rather than knowing “that” (declarative), students need strategies for determining word meaning that will help them become metacognitively and metalinguistically aware; they must understand and know how to manipulate structural features of language (Nagy & Scott, 2000). Classroom-based studies of elementary students have demonstrated the effectiveness of focused instruction in the strategies of word parts and context clues (Baumann, Font, Edwards, & Boland, 2005). Thus the second stage of the instructional cycle is to design many opportunities for students to combine and create new words from the roots they meet.

Using context clues, for example, is a frequently used reading strategy for determining the meaning of an unknown word. Although context in reading has many dimensions, it most often refers to figuring out the meaning of an unknown word by getting help from the words, phrases, sentences, or illustrations surrounding it (Harris & Hodges, 1995). Assistance from context may be semantic, based on the meaning of the preceding or following passages, or structural, based on grammatical or syntactic markers within a word or sentence. Using context clues is an especially important strategy for vocabulary development because, as we noted earlier, many English words have multiple meanings. Identifying which meaning is the best fit depends entirely on context. Learning how to use the surrounding semantic context, whether grammatical, structural or oral, helps children expand vocabulary. Most vocabulary-related school tasks assume that students already have this kind of knowledge, but that is frequently not true. It is important to teach students to read and reason the meaning of new words through the use of context clues.

Students should be immersed in words and given frequent opportunities to use new words in diverse oral and print contexts to learn them on a deep level (Blachowicz & Fisher, 2000, 2006). Discussion, reading, writing, and listening are thus important components of a vocabulary program. Related to this principle is another: the importance of wide reading. The more students read, the better.

Vocabulary instruction must foster word consciousness, an awareness of and interest in words (Graves & Watts-Taffe, 2002). Words themselves

are interesting, and our ultimate goal is to create lifelong word lovers. Activities like word exploration (etymology) and word play (puns, riddles) are central to vocabulary development. Crossword puzzles, word scrambles, riddles, and tongue twisters are fun, but they are also good vocabulary practice. Time during which students play and explore word games on their own or with others is time well spent. The final step in the instructional model is to extend and enrich students' vocabulary by encouraging them to become word sleuths, a habit that they may well carry with them throughout (and beyond) their school years.

Don't forget that teachers can also stimulate such habits by sharing their own love of words. Each of us has favorite texts that we turn to because the words move us to laughter or tears. Reading these aloud to students and talking about the power of words is an effective practice. Teachers can also whet students' appetites by sharing interesting word histories and then showing students how to explore the origin of lots of words themselves. Posted lists of websites or print resources for students to investigate themselves can help make word learning and word play a priority in the classroom as well.

Dictionaries and other reference works can add interest to a vocabulary program. Although most students begin to learn about reference tools in the primary grades, they may not know the enormous variety of electronic and print dictionaries now available. They may know the concept of synonym and antonym, but they may not know how to use a thesaurus. (Some of the electronic ones available are really fun to use!) Practice with reference tools will help students learn to use them automatically.

In the next section, we suggest a list of specific roots to use as a foundation on which to build your vocabulary program.

What Roots Are Worth Teaching?

Tables 1.1 to 1.3 present the most useful word roots aligned with language arts and content area vocabulary for primary, intermediate, and middle school students. We recommend that this three-level sequence form the focus of instruction in Greek and Latin word parts. This instructional sequence teaches selected roots while also cultivating metalinguistic awareness. It is based on three principles: (1) words have an internal semantic logic, (2) words are made of units that contain meaning, and a semantic (meaning) relationship exists between units, (3) a word's meaning can be unlocked through analysis of its semantic units.

Table 1.1. Level 1 roots for primary/elementary students

Building words from familiar vocabulary

Prefixes

<i>co-, con-</i>	with, together
<i>de-</i>	own, off of
<i>ex-</i>	out
<i>in-</i>	not (“ <i>negative</i> ”)
<i>pre-</i>	before
<i>re-</i>	back, again
<i>sub-</i>	under, below
<i>un-</i>	not (“ <i>negative</i> ”)

Bases

<i>audi-, audit-</i>	hear, listen
<i>graph-, gram-</i>	write, draw
<i>mov-, mot-, mobil-</i>	move
<i>port-</i>	carry
<i>vid-, vis-</i>	see

Numerical bases

<i>bi-</i>	two
<i>tri-</i>	three

Suffixes

<i>-able, -ible</i>	can, able to be done
<i>-er</i>	more
<i>-est</i>	most
<i>-ful</i>	full of
<i>-less</i>	without

The roots recommended in Tables 1.1 to 1.3 are neither mandatory nor exhaustive. They were drawn from a broader sequence developed for a comprehensive vocabulary program based on Greek and Latin word roots (Rasinski et al., 2007). That sequence was generated by (a) identifying those Latin and Greek roots that appear most frequently in the English lexicon, (b) determining which roots have most utility at primary, upper elementary, and middle school levels, and (c) identifying what metalinguistic information is essential and when it should be taught. In addition, six teachers, grades 2–8, have been working with us in the development of the lists and the teaching strategies that are described in the next section of the chapter. Each reports that students are successful with and enjoy the activities.

The level 1 roots can be introduced in the primary grades. This list emphasizes familiar Latin prefixes and suffixes with only a handful of

Table 1.2. Level 2 roots for upper elementary students

Building school vocabulary

Prefixes

<i>a-, ab-, abs-</i>	away, from
<i>di-, dif-, dis-</i>	apart, in different directions, not
<i>pro-</i>	forward, ahead
<i>tra-, tran-, trans-</i>	across, change

Assimilating prefixes

<i>ad-</i>	to, toward, add to
<i>con-, com-, col-</i>	with, together
<i>in-, im-, il-</i>	in, on, into (directional)
<i>in-, im-, il-</i>	not (negative)

Parallel Latin and Greek prefixes**Latin Greek**

<i>contra-, contro-, counter-, anti-</i>	against
<i>circu-, circum-, peri-</i>	around
<i>multi-, poly-</i>	many
<i>super-, sur-, hyper-</i>	over
<i>sub-, hypo-</i>	under, below

Bases

<i>cred-, credit-</i>	believe
<i>cur-, curs-, cours-</i>	run, go
<i>dict-</i>	say, tell, speak
<i>duc-, duct-</i>	lead
<i>mis-, mit-</i>	to send
<i>pon-, pos-, posit-</i>	put, place
<i>scrib-, script-</i>	write
<i>terr-</i>	earth
<i>fac-, fic-, fact-, fect-</i>	do, make

Parallel Latin and Greek bases**Latin Greek**

<i>aqua-, hydro-</i>	water
<i>ped-, pod-</i>	foot, feet

Suffixes

<i>-arium, -orium</i>	place for, container for
<i>-ify</i>	to make
<i>-or, -er</i>	one who does
<i>-ose, -ous, -eous, -ious</i>	full of

Latin bases. As students move into the upper elementary grades, the level 2 list presents more bases, particularly those that students will encounter in science. Some of these bases have parallel Greek and Latin roots for

Table 1.3. Level 3 roots for middle school students

Expanding word flexibility

Prefixes

<i>auto-</i>	self
<i>inter-</i>	between, among
<i>post-</i>	after
<i>ob-</i>	(assimilates) up against, in the way
<i>per-</i>	through, thorough
<i>tele-</i>	from afar

Bases

<i>solv-, solut-</i>	free, loosen
<i>sent-, sens-</i>	think, feel
<i>tend-, tens-, tenu-</i>	stretch, thin
<i>trac-, tract-</i>	pull, draw, drag
<i>ven-, vent-</i>	come
<i>volu-, volut-, volv-</i>	roll

Parallel Latin and Greek bases**Latin Greek**

<i>am(a)-, amat-, phil(o)-</i>	love
<i>fort-, forc-, dynamo-</i>	power, strong
<i>lumen-, luc-, luc photo-</i>	light
<i>nat-, natur-, gen-, gener-</i>	be born, give birth, produce
<i>nov-, neo-</i>	new
<i>omni-, pant-</i>	all, every
<i>spec-, spect scop-</i>	look at, watch
<i>viv-, vit bi(o)-</i>	live, life
<i>voc-, vok-, voice phon-</i>	voice, call

“Flexing” suffixes

<i>-ate</i>	do
<i>-ation</i>	state or condition
<i>-ant, -ent</i>	in the process, having the characteristics of
<i>-ance, -ancy, -ence, -ency</i>	state or quality
<i>-crat</i>	ruler
<i>-cracy</i>	one who believes in rule by
<i>-ologist</i>	one who studies
<i>-olgy</i>	study of
<i>-phobe</i>	one who fears
<i>-phobia</i>	fear

the same concept. The Latin *aqua* and the Greek *hydro*, for example, both mean *water*; students can easily grasp them simultaneously. As they move into middle school, students encounter bases that represent more complex concepts they will be meeting in mathematics and science. In

addition, the concept of flexibility when approaching word roots, which we call “flexing,” is addressed. Level 3 presents a list of these roots. (See Figure 1.1 for metalinguistic concepts emphasized at each level.)

Begin the study of Greek and Latin roots by using compound words to introduce children to the notion of roots as semantic units that have meaning. Word dissection activities, which we call divide and conquer when working with students, are designed to help students identify semantic units and build a connection that unlocks a word’s meaning (Newton & Newton, 2005). The logic of this activity is mathematical: Just as $1 + 3 = 4$, *pre* + *view* = *preview* or look beforehand.

Once students have understood how to dissect familiar compound words, they learn about prefixes that attach to whole words; eventually they also learn about assimilated prefixes, or those that change spelling

Figure 1.1. Metalinguistic concepts

Level 1: Primary/elementary

Building words from familiar vocabulary

- Teach the three kinds of “roots”: prefixes (directional, negative), bases (core meaning), and suffixes (word ending).
- Teach the strategy of word dissection (divide and conquer) to build awareness of word parts as semantic units that generate meaning.
- Emphasize familiar prefixes and suffixes; introduce bases in words students already know.
- Heighten awareness that the divided units contain both meaning and sound. This shifts students from a phonological to a semantic unit approach.

Level 2: Upper elementary

Building school vocabulary

- Teach the concept of assimilation of prefixes.
- Emphasize Greek and Latin prefixes and bases with parallel meanings.
- Heighten awareness of Latin-based content vocabulary in literature, history, social studies, and of Greek-based words in science and technology.

Level 3: Middle school

Expanding word flexibility

- Teach suffixes that add flexibility to a base (e.g., create, creation; democracy, democratic; biology, biologist).
 - Emphasize bases, especially Greek and Latin bases with parallel meanings representing concepts important in content area vocabulary.
 - Heighten awareness of long words that begin with two or more prefixes (independent; unconventional) and of the use of cognates as a strategy for deducing the meaning of a new word.
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when attached to certain bases. Students also develop concepts about bases and suffixes, including ways in which suffixes affect the meaning of base roots. All this is accomplished using grade-level appropriate vocabulary. Teaching activities scaffold students to understand and then use word parts to identify unfamiliar vocabulary.

To go beyond surface or “passive” understanding of word parts, students need instructional routines based on a variety of activities (Rasinski et al., 2007). Fifteen or 20 minutes of concentrated word work several times each week should suffice. At the end of this sequence of instruction, students will have amassed an impressive number of words that are appropriate for their grade levels in school. As important, they will have mastered a number of strategies for additional vocabulary building that they can apply as lifelong word learners.

Instructional Activities

The activities described below, several of which are adapted from Newton, Padak, and Rasinski (2008), help students learn to take words apart (word dissection) and to generate new vocabulary using word parts (word composition). In addition, we describe several word games that provide active and enjoyable practice. Independent reading, writing, and discussion opportunities complement the vocabulary curriculum.

Divide and Conquer Chart

Teachers may want to introduce and practice this routine (Rasinski et al., 2007) with familiar compound words or prefixes. Once students become comfortable with the procedure, they can apply it as they explore new words in a variety of learning contexts.

Purpose

To help students understand that words are often made up of recognizable “root” parts that can help them unlock the meaning of an unfamiliar word

Materials

- A list of about 10 familiar compound words or a list of words that carry the same prefix or root
- A divide and conquer template that has been prepared in advance and duplicated for each student (a four-column chart with blanks to correspond to word parts of focus; see Figure 1.2)

Figure 1.2. Divide and conquer template example

Whole word	First word	+	Second word	=	Whole word means
playground	play	+	ground	=	ground where we play
bedroom	bed	+	room	=	room where a bed is
sunlight	sun	+	light	=	light from the sun

Procedure

1. Review the concept of “compound words” or prefixes by asking students to explain what they are (a single word that contains two or more complete words; a unit added to the front of a word that affects its meaning).
2. Write the word *birthday* on the board. Ask someone to explain what *birthday* means. Now ask another student to identify what two words are in *birthday*. Ask how each of those words contributes to the meaning of the word *birthday* (e.g., a *birthday* is the day of your birth.)
3. Show students the list of words. Read the list of words together orally. Now ask students to choose a word on the list and to tell what two words it contains and what it means. As students offer explanations, reinforce that the meaning of each compound word is built from the semantic relationship between the two units. (Here is a tip: The second word in a compound word usually describes the main idea. The first word gives a detail about the main idea.)
4. When all words on the list have been discussed, tell students that they have just used a strategy called divide and conquer. Explain that words are made up of word parts or meaning units called roots. Tell students that they can often figure out an unknown word by “dividing and conquering” its parts or roots.
5. Write these three compound words that use the word *book*: *bookcase*, *bookshelf*, *bookmark*. Ask students to divide and conquer each of these words. (A bookcase is a “case for books”; bookshelf is a “shelf for books”; bookmark “marks the book” where the reader left off). As students offer explanations, note how the word *book* always has the same meaning. Remind students that the new word can be figured out by connecting the meaning of each word’s root.

6. Distribute the divide and conquer template with the list of words with the same prefix or other compound words. Students will have a list of 10 words that can be used for a variety of extension activities that use art, drama, or writing.

Word Spokes

This strategy (Rasinski et al., 2007) works well as a follow-up to divide and conquer and can be done individually or as a group or partner activity.

Purpose

To develop students' word analysis skills by manipulating word roots

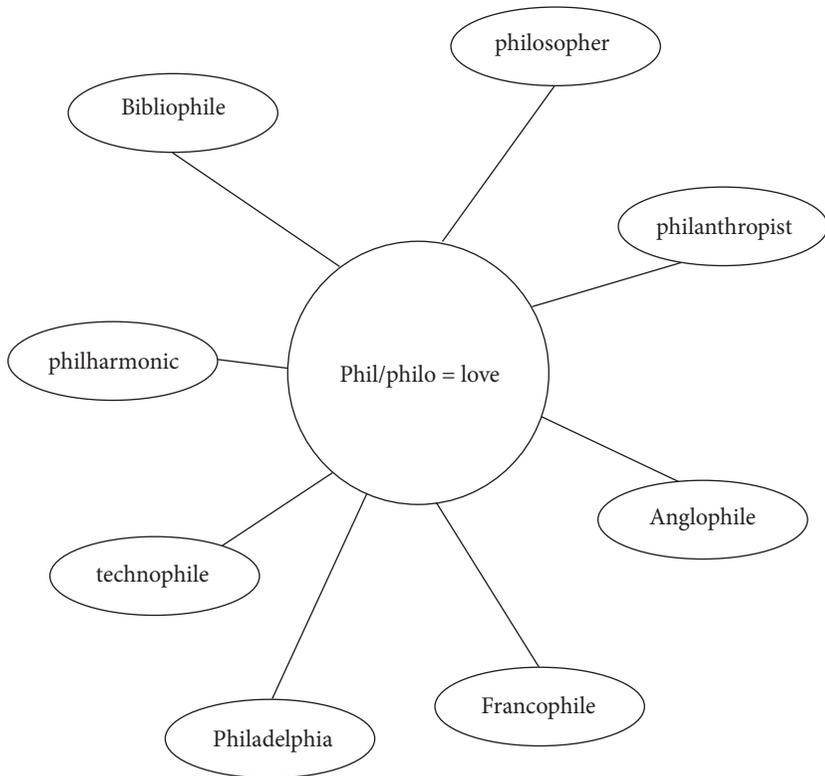
Materials

- An age-appropriate list of familiar prefixes or word roots
- A word spokes template (a circle with several spokes attached to it, much like a bicycle tire; see Figure 1.3 for an example) that has been prepared in advance and duplicated

Procedure

1. Begin by reviewing the concept that sometimes words are made up of recognizable root parts that provide clues to word meaning. Write the prefix *re-*, or choose another familiar prefix. Tell students that *re-* almost always means *back* or *again*, and that they can figure out the meaning of lots of *re-* words by keeping that in mind. Tell them that they are going to build many *re-* words in an activity called word spokes.
2. Put a blank word spokes template on an overhead transparency. Write the prefix *re-* in the center circle, and tell students that they must "speak" out five or more different words that have the prefix *re-*.
3. As students call out words, write a different *re-* word in each spoke. Emphasize the *back* or *again* aspect of the words students provide.
4. Students can then do their own word spokes with roots they choose or you can assign roots. If students work on the same root, point out the variety of words and ways in which the root can be used. If students work on different roots, ask why they chose their words, how the words mean *back* or *again*, and so forth. Talking about the words directly and using the words in classroom conversation are good ways to give students practice using them.

Figure 1.3. Word spokes: *Phil/philo*



The Figure 1.3 provides an example of word spokes using the Greek root for love—*phil/philo*.

Odd Word Out

One way to make the meaning of a word clear is to compare how it is similar to or different from other words. Word composition activities such as this are particularly important because research indicates students are often able to recognize more words (passive vocabulary) than they generate (active vocabulary) through oral and written communication (see Nagy & Anderson, 1984). This quick teacher-constructed activity, odd word out (Rasinski et al., 2007), asks students to choose which word does not fit and then to explain why. This can be used as a small-group discussion activity; whole-group conversation should follow.

Purpose

To help students learn to manipulate root parts and generate new vocabulary

Materials

- Several sets of three words that share a word part
- Sets can be written on the chalkboard or chart paper. Alternatively, a worksheet such as the one presented in Figure 1.4 can be developed

Procedure

1. Select three or four words, two or three of which share some characteristic. Words could be related semantically or syntactically. Words could also be related by the presence or absence of word parts. Consider this example:

Cat Dog
Ant Tiger

The odd word could be *ant*, because an ant is not a mammal, because it has more than four feet, or because the word *ant* begins with a vowel. The odd word could also be *tiger* because it's not a three-letter word or because it has two syllables. The groups of words you select for odd word out will often have multiple answers, which promotes children's thinking about the many ways in which words can be related to one another.

2. Present one set of words. Ask students to talk with partners to determine which word in the set could be the odd word out. Encourage them to generate as many ways as possible to eliminate one word.
3. Invite students to share their ideas. Praise the diversity in thinking.

Figure 1.4. Odd word out template example

Look at the four words. Write the one that doesn't belong on the line. Then write how the other words are the same.

precook preheat
premixed pretest

The word that doesn't belong is pretest. The other words are the same because they have to do with cooking.

4. The remaining sets of words can be addressed in a whole group or with students working in pairs.

Be the Bard

William Shakespeare was one of the greatest wordsmiths in history. He invented words, including an estimated 8% of all the words he used in his writings. Many of the words he invented, such as *bedroom*, *skim milk*, *besmirch*, *exposure*, *hornbook*, *fairyland*, *unquestioned*, *madcap*, *noiseless*, and *marketable* were simply the combination of already existing words and word roots.

Shakespeare is surely a good model for any student of English words. If Shakespeare had permission to invent words, students can be given, from time to time, license to do the same. Students we have worked with in the past have invented words such as *matermand* (a mother's order), *teleterra* (a distant land), *terraphile* (someone who loves the earth; an ecologist).

One student came to class one day with a new word that he couched in the form of a riddle for this classmates. He posed his invented word *autophile* and asked his fellow class members what they most likely have in their pockets or purses if they were an autophile; the choices were a wad of money, a set of car keys, or a mirror. Most of the class immediately called out "a set of car keys" (a lover of cars or automobiles) to which this student responded "Wrong!" The correct answer was a mirror. Since the root *auto* refers to self, an autophile is someone who is in love with him or herself, a narcissist. Such a person would love to spend time looking at his or her reflection in a mirror. The class was surprised and delighted by the answer, but also posed the question, why are cars often called autos or automobiles? The discussion that followed was rich and engaging.

Purpose

To build or reinforce conceptual knowledge by inventing and defining new words and concepts using word roots already learned

Materials

- A list of at least 10 roots that have been previously taught

Procedure

1. Give students the task of inventing new words by combining previously taught words and then devising definitions for the words.
2. Provide a list of word roots previously taught. Review them with the students.

3. Show students how to invent a new word, like Shakespeare did, by combining two or more of the roots already taught. Share a word or two that you have made and explore the definition of the word with students.
4. Ask students to work alone or with a partner to invent two or three words and be ready to provide a definition for the word.
5. Allow time for discussion of words.

Word Theater

This versatile strategy (Hoyt, 1999), based on the popular game charades, uses pantomime and oral language to make word meanings concrete. It works especially well as a partner or small group activity.

Purpose

To build or reinforce conceptual knowledge by acting out the meaning of a new or familiar vocabulary word

Materials

- A list of at least 10 words containing the word part of focus that can be dramatized easily

Procedures

1. List the words on the chalkboard or on chart paper so that everyone can see them. Tell students that they will pick one word and then work with a partner to act out its meaning, but without speaking.
2. Ask students to find a partner. Each child should read the list of words to his or her partner. When both partners have read the list to each other, they should choose a word. Tell them they have two minutes to decide how to get the word's meaning across by acting it out.
3. Ask each team to act out its word while other students try to guess which word they have chosen. Make sure the list of words is visible, so that students can keep reading and rereading the words as they try to figure out which one is being pantomimed. As students look for connections between the acting and the word list, they will better understand the concepts each word represents.

Variation

The word skits (Rasinski et al., 2007) game works well with students who are both experienced in pantomiming words and comfortable working

in small teams (3–4 students per team). Each team chooses one word and writes its definition on an index card. Working together, they create a skit or situation that shows the meaning of the word. The skit is performed without words. Classmates try to guess the word being shown. Once the word is correctly identified, the definition is read out loud.

Individual and Collaborative Activities

Individual and collaborative activities that use words in creative ways, including word games, are another important component of vocabulary instruction. Although they focus on practice, they are fun, which promotes interest in words. Moreover students need to encounter new words or word parts in multiple ways to learn them.

Root of the Week

This activity is a great way to get students to pay attention to words in their daily reading, writing, speaking, and listening.

Purpose

To focus attention on words that share a prefix or root word

Materials text

- Teacher-selected root (prefix, suffix, or base)
- Chart paper and markers

Procedure

1. Ask students to be on the lookout for words they encounter that contain the specific root of the week.
2. Post a chart with the root in bold letters at the top. Number each line.
3. Tell students that whenever they discover a word with that root, they should add it to the list. Tell them to (a) write the word, (b) circle the word part, and (c) write where the word was found.
4. At the end of the week, review the list. Students love hunting for these words, so you may find your class filling more than one sheet each week. Find a spot in the room to collect all the charts. As the weeks pass, you will have many lists of words you can use for different purposes.

Wordo

A vocabulary version of bingo, Wordo (Rasinski et al., 2007) is a wonderful way for students to play with new words they are learning.

Purpose

To experience an age-appropriate group of words through simultaneous use of oral and written language

Materials

- A list of 12–16 words
- A Wordo card for each child (a 3×3 or 4×4 matrix; make sure boxes are large enough for students to write in)

Procedure

1. Write the words you have chosen on the board.
2. Pass out a Wordo card to each student. Ask each student to choose a free box and mark it. Then have them write one of the words in each of the remaining boxes. Students choose whatever box they wish for each word.
3. Call a clue for each word. The clue can be the definition for the word, a synonym, an antonym, or a sentence with the target word deleted. (For very young children, or those playing for the first time, you may want to simplify the process by saying the word and then asking them to mark it.)
4. Students need to figure out the correct target word, then put an *X* through it. (If you want to clear the sheets and play again, use small scraps of paper or other items to mark the squares.)
5. When a student has four *X*'s or markers in a row, column, diagonal, or four corners he or she can call out "Wordo!"
6. Check their words and, if correct, declare that student the winner. Then have students clear their sheets and play another round of Wordo. The winner of the first game can be the one to call out clues.

Variation

Word bank Wordo uses students' personal word banks on which individual words are written, one per card, which simply changes how the Wordo cards are developed.

From their word bank of word cards previously or currently being taught, have students select any group of 9, 16, or 25 cards. Have the

students arrange their cards into a 3×3 , 4×4 , or 5×5 matrix, face up, in front of them. That matrix becomes the Wordo card. From here the procedure follows the same routine in steps 3–6 of the previously described Wordo game. When a student finds a word that is called or that is a correct answer to a clue given by the teacher, they simply turn the word over, leaving the blank side of the card face up. A complete row, column, diagonal, or four corners of blank cards results in a Wordo win.

To play another game, students simply turn all their word cards face up again and, if so desired, rearrange their order to form a new Wordo game card. No matter how it is played, Wordo is an engaging game that allows all students to practice the words and word roots they need to know. Wordo can also be used as a review activity with words from other subject areas such as spelling, social studies, science, and math.

Card Games

Card games such as Memory or Concentration or Go Fish are engaging independent activities that also work well with word bank cards.

Purpose

To provide reinforcement in a fun atmosphere

Materials

- A set of word cards—these can be duplicates of the same words, words and definitions, or pairs of related words (e.g., *look, looks, looking, looked; return, rewind, rethink, refund*)

Procedure

1. If necessary, remind students how to play the games. Memory, for example, begins with students shuffling the word cards and then placing them face down into a grid.
2. One student selects two cards, turns them over, and says each word. If they match, the student keeps them and takes another turn.
3. If they do not match, the student turns them back over, and the second student takes a turn.
4. The game continues until players have matched all the words in the grid.

Twenty Questions

The vocabulary version of this popular game (Newton, Padak, & Rasinski, 2008) uses oral language and personal connections to deepen conceptual knowledge. If you want to build a little competitive spirit, divide the class into two teams for this activity.

Purpose

To ask questions that will help students figure out a “mystery” word

Materials

- A list of words containing a word root of focus, or a paper bag with at least a dozen words on slips of paper

Procedure

1. If students have never played twenty questions, review the following rules for them: Indicate the list of words. Tell students that one of them will get to be “It.” That student will choose a word that classmates will try to guess by asking yes-or-no questions. If no one can figure out the word after 20 questions have been asked, then the student who is It reveals the word.
2. Remind students that the person who is It can only give a yes or no answer to the questions. You may want to scaffold this by taking the first turn as It yourself. Otherwise, invite someone to begin. Then let students take over, asking questions until someone has guessed the correct word.
3. If someone guesses the correct word, that person becomes It and gets to choose the next word.
4. Repeat the process. This game can take as much or as little time as you choose. It’s a quick filler or Friday afternoon wind-down activity.

Root Word Riddles

Who doesn’t enjoy the brain-teasing process trying of solving a riddle? This strategy (Rasinski et al., 2007) invites students to create and guess riddles with words from the same root. Students get to think creatively as they try to guess a word by connecting semantic clues. This works well as a partner or team activity.

Purpose

To broaden students' knowledge of vocabulary words from the same root

Materials

- A list of 6–10 words from the targeted root or word part
- Chart paper
- Paper and a pencil for all students

Procedure

1. Begin by reviewing the meaning of the root. Read the list of words together. Ask students to explain what each word means. Make sure their explanation includes the meaning of the root.
2. If students have not created riddles before, share some riddles with them; there are many good books of riddles to choose from. Spend some time not only solving riddles, but talking about how riddles are constructed. Ask students what types of clues seem particularly helpful.
3. Pick a word from the list and tell students you will create a riddle for them to guess. Tell them you are going to give them three clues. Write out the first clue. Make sure to begin it with the words “I mean....” Then write out a second and third clue. (Example of clues for the word “invisible” might include the following: I mean something you cannot see. My opposite is “visible.” I have four syllables. What am I?)
4. Ask students to pick a word from the list and make their own riddle to share with others.
5. Spend some time swapping riddles. When students have written riddles about the same word, point out the variety of clues and ways in which the word can be described. Note how each of the words shares a certain meaning based on its common root.

Conclusions

Primary grade teachers find that rimes, phonograms, or word families (e.g., *-at*, *-it*, *-ock*, *-um*) are superb vehicles for teaching word decoding or phonics. Word study and phonics scholars almost universally endorse the use of word families as an effective method for teaching phonics. Knowledge of one word family can help a reader decode many words.

For example, knowledge of the *-am* word family can help a reader sound out many one syllable words such as *ham, jam, slam, ram,* and *cram*. The same word family can also help a reader sound out more sophisticated multisyllabic words such as *Alabama, hamster, ambulance, camera,* and many more.

In a sense, Latin and Greek roots are like the next level of word families, with one major exception: Knowledge of Latin and Greek roots not only helps readers sound out words, it also provides readers with critical cues for determining the meaning of words containing the roots (e.g., knowing that the prefix *sur-* means “more of something, or beyond,” the meaning of words such as *surtax* and *surreal* becomes much more accessible and transparent).

Reading and language scholars are increasingly recognizing the importance of Latin and Greek roots in teaching reading. The challenges for teachers are to identify appropriate roots to be taught to children at various ages and to develop and implement engaging instructional activities that will not only help students learn the roots and important English words, but also take delight in the meaningful connections of words in our wonderful language and get a sense of how so many words in English were formed. We hope that in this chapter we have made some initial steps in this direction and have whetted your appetite for making Latin and Greek word roots a regular part of your instructional routines in reading and language arts. Fin!

Questions for Discussion

1. How do you currently teach vocabulary to your students? What principles or guidelines do you follow? Are you satisfied with your approach? Are students learning the vocabulary that you present deeply and fully? How do you know? Do your students find vocabulary learning engaging and enjoyable?
2. Should an effective vocabulary program focus on general vocabulary, content area vocabulary, or both? Why?
3. One of the keys to effective vocabulary instruction is to provide students with multiple opportunities to see, say, write, and hear new words. List several authentic ways to accomplish this.
4. How might you use the principles outlined in this chapter to differentiate instruction for students with advanced vocabularies?

For students with seemingly small vocabularies? For students learning English?

5. How can you elicit support for your vocabulary program from parents and others in the child's home environment?

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