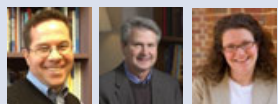


What's in a Word? Using Content Vocabulary to *Generate* Growth in General Academic Vocabulary Knowledge

Kevin Flanigan, Shane Templeton, & Latisha Hayes

Learners delve into the English language's powerful morphological system to enrich both content and general academic vocabulary knowledge. The key? Return to the "roots" of English.

According to experts, we are in the midst of an adolescent literacy crisis (Deshler, Palincsar, Biancarosa, & Nair, 2007). Approximately 70% of U.S. students in grades 4–12 struggle to read on grade level (Biancarosa & Snow, 2006). This means that only about one third of upper-grades students can read grade-level material with adequate accuracy, fluency, and comprehension to successfully tackle the increasingly sophisticated text that is part of the curriculum. Although there is no typical profile for these students and no single reason for their difficulties, many of them struggle with the vocabulary of content area learning (Carnegie Council on Advancing Adolescent Literacy, 2010). To better understand how challenging upper-level academic



Kevin Flanigan is an associate professor at West Chester University, Pennsylvania, USA; e-mail kflanigan@wcupa.edu.

Shane Templeton is a professor emeritus at the University of Nevada, Reno, USA; e-mail wst@unr.edu.

Latisha Hayes is an assistant professor at the University of Virginia, Charlottesville, USA llh6e@virginia.edu.

vocabulary can be, consider the following excerpt from a high school U.S. history textbook discussing President Abraham Lincoln's dilemma over Fort Sumter at the outset of the Civil War (Danzer, Klor de Alva, Wilson, & Woloch, 1998):

If he [Lincoln] ordered the navy to shoot its way into **Charleston harbor** and **reinforce Fort Sumter**, he would be responsible for starting **hostilities** between the North and the South, which might **prompt** the slave states still in the **Union** to **secede**. On the other hand, if he ordered the fort **evacuated**, he would be treating the **Confederacy** as a **legitimate** nation with the right to **evict** foreigners from its territory (emphasis added, p. 312).

In just these two sentences are at least 12 vocabulary words that could pose a challenge to a student who lacks a strong vocabulary knowledge. The five bold-faced vocabulary terms—*Charleston*, *Fort Sumter*, *Union*, *secede*, and *Confederacy*—are content-specific words usually taught and encountered in a U.S.

history class. The seven underlined words—*harbor*, *reinforce*, *hostilities*, *prompt*, *evacuated*, *legitimate*, and *evict*—are general academic vocabulary terms that could be found in almost any content area, in newspapers and magazines, and in more sophisticated reading material. A student who does not know the meaning of even a few of these words will struggle to comprehend these two sentences. Now imagine a student with an impoverished vocabulary being asked to read an entire section, chapter or textbook like this passage, day after day, month after month, year after year.

So Many Words, So Little Time

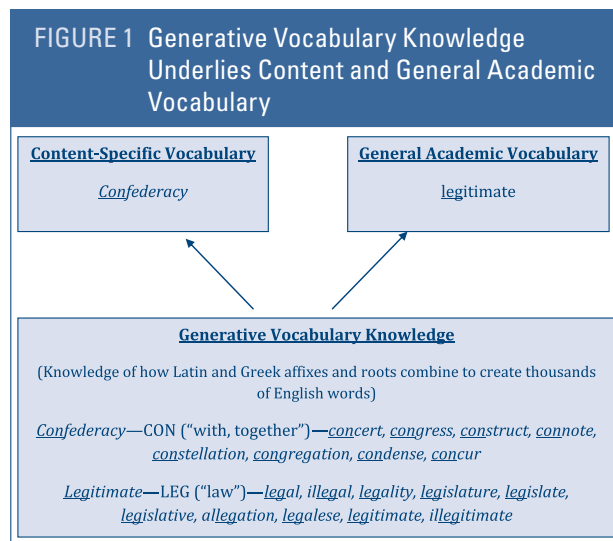
As the textbook excerpt illustrates, students need to know the meanings of many sophisticated words to succeed in the middle and high school curriculum. How many? The average reading vocabulary of a high school graduate has been estimated at 40,000 words (Nagy & Anderson, 1984; Stahl & Nagy, 2006). Not surprisingly, struggling readers can be thousands, perhaps even ten thousand words or more behind their normal-achieving peers (Stahl & Nagy, 2006). This vocabulary gap has potentially disastrous implications for students lacking the necessary foundational word knowledge to succeed in the upper-grade curriculum.

What can upper elementary, middle, and high school teachers do? With all the demands placed on content area teachers, including the local, state, and national standards, along with the vast amount of domain-specific concepts and vocabulary in their respective content areas, little time remains for anything extra. Yet, given the high correlation between comprehension and vocabulary (Anderson & Freebody, 1981; Berninger, Abbott, Nagy, & Carlisle, 2010) and the importance that vocabulary knowledge plays in a student’s success, we cannot ignore its critical place in the curriculum. What can we do? Many teachers feel caught in a catch-22: so many words to teach, so little time to teach them.

The purpose of this article is to show how teachers can use the content vocabulary words they already teach as a gateway to improving their students’ overall vocabulary knowledge in a time-efficient, effective manner. The approach we describe here, referred to as *generative* vocabulary instruction, taps into one of the most powerful secrets to learning

vocabulary—that approximately 70% of English words contain Greek or Latin prefixes, suffixes, or roots (Nagy & Anderson, 1984). By teaching students how to tap into this deep-rooted system of meaning that underlies most English words, we help them *generate* a more extensive and deeply grounded vocabulary. Of course, generative vocabulary instruction should be part of a comprehensive, multifaceted approach that includes large amounts of reading in language-rich texts at the student’s independent or instructional level, direct instruction of important content-specific and general academic words, and a focus on engaging students in word learning (Graves, 2006; National Governors Association Center for Best Practices & Council of Chief State School Officers, 2010; Stahl & Nagy, 2006).

Figure 1 shows how, in a U.S. history class, generative vocabulary knowledge supports the learning of content-specific words (e.g., *Confederacy*) as well as general academic words (e.g., *legitimate*). In each case, knowledge of the affix or the root (*con-*, meaning “with or together”; *-leg-*, meaning “legal”) can greatly help in decoding and remembering a word’s meaning (the *Confederacy* was an alliance of the Southern states that left the Union and banded together; something that is *legitimate* follows established laws, rules, or standards). In addition, knowledge of the prefix or the root can help decode the meanings of many related words (e.g., *concert*, *congress*, *connote* and *legal*, *legislate*, *allegation*), potentially expanding the students’ vocabulary knowledge beyond the specific content vocabulary being studied.



Using Content-Specific Terms to Explore Vocabulary

So the question remains, how can a content-area teacher be expected to teach the vast amount of vocabulary in a particular subject (10 to 20 new terms or more per week) while building students' vocabulary knowledge of general academic words? The following vignette illustrates how generative vocabulary instruction might occur in a content-area class.

Mr. Ruiz and his 10th-grade U.S. history students are in the midst of a unit on the development and ratification of the Constitution. As he does periodically, Mr. Ruiz chooses a content term—in this case, *constitution*—for his students to explore more deeply and break down by prefix, suffix, and/or root. Because this approach is a regular practice in his class—he began setting the stage at the beginning of the year and steadily elaborated it over several weeks—his students are quickly able to “take off” word parts they already know, identifying the prefix *con-* (“with or together”) and the suffix *-ion* (“act or process of”) during the class discussion. Realizing that the root—the *-st/ sta-* (“stand”) in the middle of the word—is new for his students and will likely be difficult to identify, Mr. Ruiz introduces it. Then he guides his students in a decoding of the word *constitution*, explaining that “when our founders wrote the Constitution, they were literally standing together and stating what they believed.”

Next, Mr. Ruiz says:

OK, folks, a lot of powerful vocabulary words come from the *st/ sta* root. I want you to get in groups of

four to five and generate as many words as you can think of that have the root *st/sta* in them. As you do so, try to figure out how the meaning of your words and the meaning of the *st/sta* root, “stand,” are related; connecting words like this will help you remember them. We'll add each word to our root web on the board.

(See Figure 2 for an example of a partially completed *-st/ sta-* root web.) Some groups get started quickly, but others need prompting from Mr. Ruiz as he moves around the room, monitoring and guiding the students' explorations of the words. After about five minutes, the groups begin to share with the entire class.

Kayla, one of the highest-achieving students, starts the discussion. “We thought of *stable*. That means to be, like, steady and strong. You know, something that's stable won't fall down.” Mr. Ruiz adds the word to the root web and asks, “OK, Kayla, and what does that have to do with the root meaning ‘stand’?” Kayla responds, “Well, this chair and desk are *stable*, they won't fall down. Umm...so if something doesn't fall,

FIGURE 2 Root Web of *-st/ sta-*



it must stand up!” Jeff, a student who plays football, offers the word *stance*, explaining how his teammates work on their *three-point stance* in practice. With some prompting, when asked how *stance* relates to the root meaning of “stand,” Jeff responds, “Well, it’s kind of how we stand and get in the right position, you know, for the next play.” Mr. Ruiz affirms Jeff’s answer and elaborates on this meaning of *stance*, discussing with the students that *stance* also has a more abstract meaning, referring to how you stand, or the position you take, on an issue, such as gun control or taxes.

Alex, a student who loves to play devil’s advocate, asks, “What about *stain*? You know, when you get something on your shirt, like mustard. That’s got *sta*- in it, but it doesn’t have anything to do with *stand*.” It quickly becomes apparent that no one, including Mr. Ruiz, can figure out how the meaning of *stain* is related to *stand*. Mr. Ruiz explains to the class that it’s OK not to be able to figure out every word right away, and that the *sta-* in *stain* might be a false root, a sequence of letters that is spelled like the root but is not related in meaning or origin. It’s important to be aware of these words as well. The class adds the word to the root web accompanied by a question mark to indicate further inquiry later.

As the class continues to add words to the web, Mr. Ruiz guides the discussion, continually emphasizing (a) the spelling and meaning connections among the words and (b) how the meaning of each word is related to the core meaning of the root “stand,” as illustrated in Figure 3. As the students start to run out of derived words, Mr. Ruiz begins to offer a few of his own, but he always asks the students first to see if they can make the connection. In this way, the class discusses such words as *unstable isotopes* (atoms that disintegrate, that are unable to stay standing) and *staunch* (a staunch supporter will stand by you). Mr. Ruiz concludes:

It’s pretty amazing to think that all of these words—*stand*, *constitution*, *statute*, *stable*, *unstable*, and *staunch*—are all derived from the same root, *st/sta*, and all share a common meaning of “stand.” It makes them all a lot easier to remember, doesn’t it?

By the end of the 15-minute discussion, Mr. Ruiz feels that his students possess an initial understanding of the root *-st/sta-* and of the 11 derived words in the root web. Although he understands that 15 minutes of instruction will not result in deep knowledge of

each word, he knows that word learning occurs along a continuum, and that this first step is critical. In addition, Mr. Ruiz thinks it important to point out that several of these words are high-utility general academic vocabulary terms—including *stable/stability/unstable*, *statistic/statistician*, and *status*—that his students are likely to see in contexts beyond his classroom, notably in science, English, and math texts as well as in newspaper and magazine articles.

Generative Vocabulary Instruction

We refer to the type of vocabulary instruction occurring in Mr. Ruiz’s class as *generative* because from just one root, such as *-st/sta-*, many different words can be generated (Bear, Invernizzi, Templeton, & Johnston, 2012; Templeton, Bear, Invernizzi, & Johnston, 2010). We explain that, because so many words are derived from a single root, “when you learn one word (or root), you learn *exponentially* more words!” The key concept underlying generative vocabulary instruction is the spelling–meaning connection (Chomsky, 1970; Templeton, 1983), which refers to the phenomenon in English that words that are related in spelling (such as *stand*, *staunch*, and *stable*) are often related in meaning, despite changes in sound.

We introduce spelling–meaning connections using words whose relationships are straightforward and clear: for example, *sign–signature* and *define–definition–definitive*, noting the consistency in

FIGURE 3 Relationship Between the Meanings of Derived Words and the Meaning of the Root

ST/STA Derived Word	How the Meaning of the Word Is Related to the Meaning of the Root
<i>Status</i>	The relative position or “standing” of someone or thing
<i>Substantial</i>	Something solid; it literally “stands under” (<i>sub</i> means “under”)
<i>Static</i> and <i>stale</i>	If something “stands” too long, it is <i>static</i> (not active or moving, stationary) and may grow <i>stale</i>
<i>Stall</i>	To delay someone, to keep them “standing”
<i>Stalwart</i>	Strong and brave; they will “stand up” for their beliefs
<i>Stance</i>	The position or manner of your body or argument; literally “how you stand”
<i>Circumstance</i>	<i>Circum</i> means “around,” the conditions or details that “stand around” an event or thing
<i>Staunch</i>	(adjective)—Firm, loyal, or steadfast; a staunch supporter will “stand” by you
<i>Staunch</i>	(verb)—To stop or prevent the flow of a liquid, usually blood; to make it “stay”
<i>Stable</i>	(adjective)—Something that is firm and steady, dependable, it will remain “standing”

spelling despite changes in sound. Students who have a firm grasp of this concept are better equipped to learn, remember, and make connections among the critical concepts and vocabulary of the upper-grades curriculum. In the following list, we identify other benefits of the aforementioned type of instruction.

- In just 20 minutes, Mr. Ruiz was able to introduce his class to 11 vocabulary words. Some were anchor words that most of his students probably already knew, including *stand* and *statue*. He could then use these to introduce novel words that the students probably did not know as well, such as *status*, *stalwart*, and *stance*, moving from the known to the new. Because these words are related in spelling and meaning, his students are much more likely to remember them and make connections among them. This type of vocabulary instruction provides a lot of bang for your buck. If time warrants, Mr. Ruiz can later delve more deeply into select words.
- Mr. Ruiz started with a content word that he was already teaching: *constitution*. By exploring this word, his students gain a deeper knowledge of a critical vocabulary term that is already part of his U.S. history curriculum.
- The students are learning not only more words but, just as important, how words work. This type of morphological knowledge—conceptualizing words as composed of units of meaning (that is, prefixes, suffixes, base words, and roots)—will enable them to learn new vocabulary words independently, store words more solidly in memory, and make connections among words.
- Many of the words derived from the root *-st/sta-* are high-utility words that students will likely encounter in other subjects. In fact, *stable*, *statistic*, and *status* are headwords on the Academic Word List (AWL; Coxhead, 2000), a compilation of the most common vocabulary terms found in college-level texts. Coxhead noted that a full 82% of the words on the AWL are made up of Greek or Latin meaning units. Thus, many of the words derived from a root are often important academic words that students are likely to encounter across the content areas and in more sophisticated texts.
- When students are given the keys to unlock this system of meaning in English, they feel in control of their own learning, because they're coming to understand that the vocabulary system in English makes sense. Nothing is more motivating than experiencing this level of control.

Principles for Generative Vocabulary Instruction

As the aforementioned examples illustrate, generative instruction should move from the concrete and familiar to the more abstract and unfamiliar (Flanigan, Hayes, Templeton, Bear, Invernizzi, & Johnston, 2011; Templeton et al., 2010). Teachers should *model and demonstrate* these generative processes and then *guide* students in their exploration of these patterns, with the goal of students *applying* this knowledge in support of independently learning new words in their reading. Use the following three principles to guide your generative vocabulary instruction in the content areas.

Begin by examining how prefixes and suffixes, or *affixes*, combine with familiar *base words*. Even if students have been exposed to prefix/suffix instruction in earlier grades, it is important that these most frequently occurring affixes be revisited in later grades before moving on to the exploration of new affixes. Let's take the example of a high school history class learning about the Compromise of 1850. A teacher could guide the students into breaking the word *compromise* into its prefix, *com-* (meaning “with or together”), and its base word, *promise*, guiding the students to see how a compromise is a promise people make with another person or group. Presumably, two parties wouldn't make this “promise together” unless they both felt they were getting something out of it.

As students begin to feel comfortable with the process of how affixes and base words combine, move on to examining how familiar and new affixes combine with Greek and Latin roots. Begin with familiar words that contain roots, such as *microphone* and *inspection*, in which the meaning that results from the combination of the meaningful parts is straightforward and clear (*microphone* = a device for picking up small sounds and amplifying them; *inspection* = the process of looking into something). Then, explore root + affix combinations that are less straightforward, such as *circumspect* (“look around”; *spect* = *look* and *circum* = *around*). Guide students to an understanding of how the present meaning of *circumspect* (“to be cautious”) evolved from the original meaning: When you are in a new situation, you often behave in a cautious or circumspect way—you first look around to figure out what's going on before you move forward and become involved.

This last example brings us to the third principle of generative vocabulary instruction: guiding students

as they take “the route back to the root.” Our students won’t necessarily make the connection between the meaning of a derived word—like *circumspect*—and the meaning of the roots—“look” and “around”—unless we guide them to do so. In the *-st/sta-* example discussed earlier, when Mr. Ruiz discusses with his students how the meaning of a word like *stalwart* (strong and brave) is related to the meaning of the *-sta-* root (a stalwart person will stand up for his or her beliefs), he is helping his students to crack the system of meaning that is inherent in the English language. His students are much more likely to remember these particular words, and to learn them more deeply, because they see how all share a core spelling and meaning. Just as important, Mr. Ruiz is teaching his students *how to think* about words.

Morphological Knowledge— What’s the Foundation?

We hope these examples have demonstrated the *generative* power of learning productive roots in specific content areas or domains. Still, you might be asking, “Is there any evidence to show that this information is beneficial to know in the long run, much less whether students will actually *apply* it?” Yes—in fact, morphological knowledge is critical in the development of vocabulary knowledge, particularly of the academic vocabulary across curricular areas beginning in grades four and above (e.g., Berninger et al., 2010; Coxhead, 2000; Nagy, Berninger, & Abbott, 2006; Templeton, 2012). Several studies have demonstrated that morphological knowledge

- is highly related to, and makes a unique contribution to, comprehension, over and above general vocabulary knowledge (Berninger et al., 2010; Carlisle, 2000; Mahony, Singson, & Mann, 2000). Wolf (2007) insightfully observed that “morphological knowledge is a wonderful dimension of the [student’s] uncovering of ‘what’s in a word,’ and one of the least exploited aids to fluent comprehension” (pg. 130).
- when taught explicitly, can make a significant difference in the abilities of students—including struggling readers—to decode novel words that contain taught roots and affixes (Baumann et al., 2002; Henry, 1993; Reed, 2008).

This last point is particularly important, and should be especially encouraging, for educators who teach vocabulary. In fact, it is one of the most important findings in the last few decades in the research on morphology. It means that we don’t have to teach every single word to our students, one word at a time, *if we teach them how words work*. For example, if we teach a student (a) that the prefix *mal-* means “bad, badly, or evil” and (b) how prefixes such as *mal-* combine with base words, such as *malfunction*, the student is much more likely to independently figure out other untaught *mal-* words, like *malcontent* (badly, or not, content). This is exactly the type of word knowledge that will put our older students in the driver’s seat in terms of their independent vocabulary learning. It is also the type of knowledge that will enrich students’ word consciousness (Lubliner & Scott, 2008; Stahl & Nagy, 2006), that is, their interest in and motivation to learn and apply knowledge about words.

Generative Vocabulary Instruction Across Content Areas

The type of instruction occurring in Mr. Ruiz’s history class can, with a little preparation, occur across the content areas. That is because most content-specific and general academic vocabulary words contain a Greek or Latin prefix, suffix, or root. For a sense of how generative vocabulary instruction might work in other content areas, see Figure 4.

One of the greatest benefits of teaching vocabulary generatively—by affixes and roots—is that, with a little guidance, students can start to make connections *across the content areas*. Moreover, we have found that once our students start, they usually can’t stop. As one of our students told us, “I see roots everywhere now!”

FIGURE 4 Examples of Generative Vocabulary Instruction Across Content Areas

Content Area	Content Vocabulary Term and Affix/Root	Derived Words
Math	<u>Centimeter</u> METER—“measure”	Kilometer, speedometer, diameter, thermometer, tachometer, altimeter
Civics	<u>Democracy</u> CRAT/CRACY—“rule”	Democrat, plutocracy, autocrat, bureaucrat, theocracy, aristocrat
English	<u>Malice</u> MAL—“bad, badly, evil”	Malevolent, malignant, malfunction, malpractice, malady, malaise, malinger, malapropism
Science	<u>Gene</u> GEN—“producing”	Genetics, genesis, geneology, generation, genetic diversity, phylogenetics, genius, gene encoding

That is because these Latin and Greek meaning units occur naturally across the English language, across domains, content areas, and, particularly important for older students, *outside the school walls*. Precisely because this system of meaning is so prevalent, these cross-curricular connections need not be forced or awkward, nor should they require a lot of planning or teaching time.

Let's take the example of the Latin prefix *mal-* from Figure 4. A student who was explicitly taught this prefix might encounter it in social studies (economic *malaise*), history ("with *malice* toward none, with charity for all," from Abraham Lincoln's second inaugural address), science (a *malignant* tumor, a *malfunctioning* machine), or English (*malapropism*). Figure 5 includes examples of how a single affix or root can appear across multiple content areas and may be encountered or applied in a student's life outside school.

A highly motivating activity that we have used to promote this type of cross-curricular vocabulary work is "It's All Greek (and Latin) to Me!" (Flanigan et al., 2011), a morphological variation of the excellent Word Wizard activity developed by Beck, McKeown, and Kucan (2002). In this activity, class periods (or groups within a class) compete with one another to see who can find the most Latin- and Greek-derived words, or situations in which these words apply, during a week or unit of study. Students can earn points in three ways:

1. Find a word that was studied outside the class—From Figure 5, a student who had learned about *demagogues* in a history class might have heard a politician referred to as a *demagogue* on the news.
2. Find a word that was not explicitly studied but was derived from the taught affix or root—For example, a student who had studied an author's use of *pathos* in English, learning that the Greek root *-path-* means

"suffer, disease, feeling, or emotion," might encounter the word *empathy* in conversation at home or the words *pathologist* or *pathogen* in a science class.

3. Find a situation or personal experience outside the classroom to which a derived word can apply—This type of connection is often the most creative and, for students, humorous way to earn points. The last column of Figure 5 contains some examples. The student who had studied *-path-* might apply the word *apathetic* to her brother's attitude toward homework.

Students do not earn points unless they can explain how the word's meaning applied to the situation or context in which they encountered it. In the example for *apathetic*, the student would have to

FIGURE 5 Affixes/Roots Occurring Across Content Areas and "Outside the School"

Affix/Root	Derived Words Found Across Content Areas	Derived Words Found "Outside the School"
DEM—"people"	<i>Social Studies</i> — <i>demagogue</i> , <i>democracy</i> , <i>demographics</i> <i>Science</i> — <i>epidemic</i> , <i>endemic</i> , <i>epidemiology</i> , <i>pandemic</i>	"There was a raging flu spreading throughout our neighborhood. It was a real <i>epidemic</i> ."
SYN/SYM—"together, with"	<i>Math</i> — <i>symbol</i> , <i>symmetry</i> , axis of <i>symmetry</i> , line of <i>symmetry</i> , <i>asymptote</i> <i>Science</i> — <i>syndrome</i> , <i>synapse</i> <i>English</i> — <i>synergy</i> , <i>synthesis</i> , <i>syntax</i> , <i>synchronicity</i> <i>Social Studies</i> —crime <i>syndicate</i>	"I saw a TV show last week about families who lost their homes because of the terrible flooding. I have so much <i>sympathy</i> for the children."
PATH—"suffer, disease, feeling, emotion"	<i>English</i> — <i>pathos</i> , <i>antipathy</i> , <i>apathetic</i> , <i>empathy</i> <i>Science</i> — <i>pathologist</i> , <i>pathogen</i> , <i>osteopath</i>	"My brother looked totally bored doing his homework last night. He looked real <i>apathetic</i> ."
SUB—"under, lower"	<i>Social Studies</i> — <i>subjugate</i> , <i>Sub Saharan Africa</i> , <i>subcommittee</i> , <i>subsidize</i> <i>Math</i> — <i>substitute</i> <i>Science</i> — <i>subterranean</i> , <i>subatomic</i> particle, <i>sub zero</i> , <i>subclass</i>	"Last summer, we went to see Luray caverns, <i>subterranean</i> caves in the Blue Ridge Mountains of Virginia."
ARCH—"rule, chief"	<i>Social Studies</i> — <i>absolute monarchy</i> , <i>anarchy</i> <i>English</i> — <i>archetype</i> , <i>matriarch</i> , <i>patriarch</i>	"Everyone in our family goes back to my grandmother for advice and always looks up to her. She is the <i>matriarch</i> of our family."

explain that *apathetic* means “showing little emotion or interest”: “My brother was watching TV and simply glanced at his homework on his lap from time to time. He definitely was *apathetic* about his homework.”

As mentioned, we also like to guide students through the process of applying their root knowledge to decoding the word’s meaning, or what we like to call “taking the route back to the root.” In the *apathetic* example, we would guide the students to see that the prefix *a-* (a variant of *an-*, the prefix that occurs in front of consonants) means “not, without.” So, *apathetic* means “without emotion.” This is exactly the type of working knowledge of morphology that will not only help our students remember words and learn them more deeply, but also enable them to decode the meanings of novel words they encounter in the future.

Figure 5 provides examples that show how a single affix or root can be found across the content areas and beyond.

Resources for Teachers: Roots and Words

You don’t have to be a Greek or Latin scholar to teach vocabulary this way. The following four-step procedure is helpful in identifying the roots and derived words that would work best in your classroom.

1. Identify your list of content vocabulary terms for the upcoming unit of study. For a U.S. history unit on the Constitution, this list could include the terms *Constitution*, *Federalists*, *Bill of Rights*, *Judicial Review*, and *James Madison*, among others.
2. Identify high-utility prefixes, suffixes, or roots in your content vocabulary words. For some words, doing so will be easier than you think. Common prefixes—such as *con-* (“with, together”) in *Constitution*, or *jud-* (“judge”) in *judicial review*—will often jump out at you. For less obvious words, dictionaries such as *The American Heritage Dictionary* contain etymological information, which includes identifying the affixes and roots that make up a word as well as the origins of a word. Also valuable are online dictionaries, allowing you to quickly look up your content words and make a list of possible high-utility prefixes, suffixes, and roots for the words you decide to examine.

3. Generate and evaluate the derived words from the prefix, suffix, or root. You should evaluate the affixes and roots both for quantity (how many derived words stem from this prefix, suffix, or root) and for quality (how useful and appropriate are the derived vocabulary words for your students). From Mr. Ruiz’s example, *-st/sta-* was a good choice because 13 words were generated from the root, and many of these words—*status*, *stalwart*, *stable*—were exactly the types of high-utility, sophisticated vocabulary terms that middle and high school students will encounter across the content areas. Several excellent resources (e.g., Flanigan et al., 2011; Templeton, Johnston, Bear, & Invernizzi, 2009; Templeton et al., 2010) and a true classic, *The Origins of English Words* (Shipley, 1984), allow you to move from the affix or root to the derived words. It is often eye-opening to see how many words are derived from a single affix or root. In addition, online resources (such as onelook.com) can generate hundreds of words that contain the affix or root you input.
4. Decide on one or two terms that will provide your students with several more high-quality words and serve as an effective vehicle for teaching them how words work.

What’s in a Word?

The curricular demands placed on middle and high school content teachers are many; the time allotted to teach it all is scarce. Just trying to keep up with the content vocabulary terms in each chapter or unit of study can feel like treading water. Because vocabulary knowledge is critical for student success in the upper grades, vocabulary instruction that targets words beyond a teacher’s specific content area must be manageable and worthwhile if teachers are to spend their valuable time on it.

Generative vocabulary instruction, as described in this article, has the potential to effectively teach students many powerful words as well as to reveal how words work. By capitalizing on the power of the spelling–meaning connection, teachers can use their content vocabulary terms as jumping-off points for robust instruction in vocabulary that can support student learning in all content areas. This type of instruction saves time because (a) it starts with content words that are already part of the curriculum; (b) it

teaches words that “hang together” as a whole because they are all related in spelling and meaning, as opposed to the traditional “one word at a time” approach that many of us experienced in school; and (c) it naturally lends itself to making connections across content areas because it is based on the way the English language is organized. Generative vocabulary instruction can also pay great dividends in creating independent learners who are excited about acquiring and using words. In Shakespeare’s classic tragedy *Romeo and Juliet*, Juliet asks, “What’s in a name?” For content teachers selecting vocabulary to teach, we should ask, “What’s in a word?” If you choose the right word, for both you and your students the answer can be “a lot.”

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