WORDS, WORDS EVERWHERE, BUT WHICH ONES DO WE TEACH?

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The CCSS emphasize the importance of teaching vocabulary but say nothing about selecting the words to be taught. This article provides a detailed procedure for selecting words to teach.

Ruby Meadows (all names are pseudonyms) was frustrated again, as she all too often was when she surveyed the vocabulary of a text her class was about to read and tried to decide which words to teach. Her class was about to read a chapter in Island of the Blue Dolphins, and as she was rereading the chapter, she had underlined words that seemed likely to challenge her students. Unfortunately—and this is what happened all too often—she had underlined nearly 50 words! She could, of course, attempt to teach all 50, but that would be far more than students were likely to learn and the attempt would bore them, bore her, and leave little time for other activities with the novel. So, guided by the realization that she could only teach a small number of words, she began the task of deciding which ones to focus on.

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We sympathize with Ms. Meadow’s frustration over selecting which words to teach from a selection students are reading and believe that she is not alone in that frustration. Having just completed a project in which we worked closely with teachers in identifying words to teach from the selections their students were reading (Baumann, Blachowicz, Manyak, Graves, & Olejnik, 2009–2012; Baumann, Manyak, et al., 2012; see the Appendix for a description of the project), we recognize how challenging it is to decide which words to teach.

For example, should we select words that are essential for comprehension of the selection? Should we select words that may not be crucial for comprehending the selection but are important for developing a broader reading and writing vocabulary? Should we teach relatively common words that are not likely to be known by students with limited vocabularies, including English learners? Should we teach words that are not in the selection but represent themes in narratives or key concepts in informational texts?

These are vexing questions that challenge both Ms. Meadows and vocabulary researchers like ourselves. They are particularly important in this age of Common Core State Standards (CCSS) because the Standards put great emphasis on vocabulary. The requirement to “Acquire and use accurately a range of general academic and domain-specific words and phrases” (National Governors Association Center for Best Practices & Council of Chief State School Officers, 2010, pp. 25 and 51) appears as an anchor standard at both the K–5 level and the 6–12 level, yet the Standards say nothing about how to identify the general academic and domain-specific words to teach.

In this article, we address these questions by describing a principled approach to word selection. We begin by discussing three features of the English lexicon and three approaches to selecting vocabulary that have been suggested. Then, in the major section of the article, we provide a theoretically and practically based approach to word selection named Selecting Words for Instruction from Texts, or SWIT. We developed SWIT during our three-year research project named the Multi-Faceted, Comprehensive Vocabulary Instruction Program (MCVIP).

MCVIP was based on Graves’s (2006) four-part approach to vocabulary instruction that includes (1) providing rich and varied language experiences, (2) teaching individual words, (3) teaching word-learning strategies, and (4) fostering word consciousness. Before proceeding, we emphasize that the SWIT word-selection process, as important as it is, relates primarily to just one of the MCVIP goals, teaching individual words, and that a comprehensive and balanced vocabulary instruction program includes all four of Graves’s components.

Some Basics on the English Lexicon and Vocabulary Instruction

Complicating the word-selection challenge are several facts about the English lexicon, the set of words that make up our language. First, there are a huge number of possible words to teach. Nagy and Anderson (1984) estimated that printed school English contains 88,500 word families, and if one adds multiple meanings, idioms, and proper words, this number increases to something like 180,000 words (Anderson & Nagy, 1992). Second, students’ vocabularies vary considerably. Although the average high-school student knows about 40,000 words (Nagy & Herman, 1987; Stahl & Nagy, 2006), some students have much larger vocabularies and others have much smaller ones.

Third, the English language consists of a very small number of frequent words and an extremely large number of infrequent words. As Hiebert’s (2005) tally of the words in The Educator’s Word Frequency Guide (Zeno, Ivens, Millard, & Duvvuri, 1995) shows, there are 8 words that occur at least once per 100 words of text, about 200 words that occur at least once per 1,000 running words, about 1,000 words that occur at least once per 10,000 running words, and about 5,000 words that occur at least once per 100,000 running words. The remaining words—well over 100,000 of them—occur somewhere between nine times and less than one time per million running words. Most students who are native English speakers (although, as we
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noted previously, not all students) will have learned the 5,000 most frequent words by the third or fourth grade. Beyond these grades, most of the words you teach will be relatively infrequent—occurring between nine times and less than one time in a million words of text.

Fortunately, over the past 30 years, educators have learned a huge amount about teaching vocabulary. Research has repeatedly shown that effective vocabulary instruction should include both a definition of a word and the word in context, provide multiple exposures to the word, involve students in discussion and active processing of the word’s meaning, and help them review the words in various contexts over time (see research reviews by Baumann, Kame‘enui, & Ash, 2003; Beck & McKeown, 1991; Blachowicz & Fisher, 2000; Graves & Silverman, 2010). Unfortunately, although there is a great deal of information available about how to teach vocabulary, there is much less information available about how to select the relatively few words that we do teach from the thousands of words that we might teach (Nagy & Hiebert, 2010).

**Word List Approach**

Some authors suggest the use of lists in selecting words to teach. Graves and Sales (2012) and Hiebert (2012) have developed word lists that contain the 4,000 most frequently occurring word families. Biemiller’s (2009) *Words Worth Teaching* is a list of 5,000 root words that are likely to be known by 40–60% of kindergarten through grade 6 students. Marzano (2004) prepared a list of more than 7,000 content-area words and phrases taken from national standards documents and representing 11 subject areas (math, science, language art, etc.) and 4 grade-level ranges (K–2, 3–5, 6–8, and 9–12). Coxhead (2000) created *The Academic Word List*, which is a list of 570 word families that represent the general academic vocabulary from college textbooks, professional journals, and other academic writing, and Gardner and Davies (2013) have recently created another academic word list titled *A New Academic Vocabulary List*.

**Genre Approach**

Taking a different tack, Hiebert and Cervetti (2012) suggested that because the vocabulary in narrative and informational texts differs in important ways, we need different approaches for teaching vocabulary for each genre. Specifically, they argued that learning words from informational texts requires “extensive discussions, demonstrations, and experiments” (p. 341), whereas dealing with words from narratives “requires that students understand the ways in which authors vary their language to ensure that readers grasp the critical features of the story” (p. 341).

**Tier Approach**

Taking still another tack, Beck and her colleagues (Beck, McKeown, & Kucan, 2002, 2008, 2013; Kucan, 2012) suggested that there are three tiers of words and that most attention should be focused on the middle tier, Tier Two. They define Tier Two words as those that have “high utility for mature language users and are found across a variety of domains” and note that examples include “contradict, circumspect, precede, auspicious, fervent, and retrospect” (Beck et al., 2013, p. 9). In contrast, Tier One words consist of “the most basic words: warm, dog, tired, run, talk, party, swim, look, and so on” (p. 9). Tier Three consists of words whose “frequency of use is quite low and often limited to specific domains,” with examples including “filibuster, pantheon, and epidermis” (p. 9).

Having briefly described some existing approaches to selecting vocabulary, we turn now to our description of SWIT. Although informed by the aforementioned approaches, we believe that SWIT is more comprehensive and provides a process that teachers can follow in selecting words for instruction from a specific text.

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Selecting and Teaching Words From Texts Students Are Reading

Types of Words to Teach

The SWIT approach deals with four types of words: Essential words, Valuable words, Accessible words, and Imported words. We refer to all four types as Unfamiliar (see the first two columns of Figure 1), but as we explain next, they are unfamiliar to students in different ways.

Essential Words. These words are crucial for comprehending the text students are reading. In narrative texts, these words often relate to understanding the central story elements and the characters and their actions. Essential words in narratives often appear just once or a few times in a given text (Hiebert & Cervetti, 2012). Essential words in informational texts are necessary for understanding the content of the text and key concepts in the content area the text represents. These words are likely to be conceptually complex and are often repeated several times in the text (Hiebert & Cervetti, 2012). Without understanding the meanings of Essential words, students’ comprehension and learning from text will be impaired significantly (Baumann, 2009).

Valuable Words. These words have broad, general utility for students’ reading and writing and thus have enduring importance. Valuable words are determined not only in relation to the text itself but also in relation to the vocabulary sophistication of the students. For example, Valuable words from a text for sixth-grade students would likely include some fairly complex words used by advanced language users, words like discord and inevitable. Valuable words from a text for second-grade students would include words not likely to be known by many second graders, but they would be of higher frequency than the Valuable words identified for sixth graders, words like accommodate and reconcile. This category is somewhat like Beck et al.’s (2002, 2013) category of Tier Two words, but unlike Tier Two words, what counts as a Valuable word differs depending on students’ age, grade, and vocabulary knowledge. One might consider Valuable words as those at a student’s zone of proximal vocabulary development (Vygotsky, 1978).

Accessible Words. These are more common or higher frequency words that are not likely to be understood by students who have limited vocabulary knowledge. Accessible words must be taught to students whose vocabularies lag significantly behind their age- or grade-level peers because of limited exposure to sophisticated language, fewer world experiences, limited prior knowledge, or the fact that they are learning English as a second language (Graves, August, & Mancilla-Martinez, 2012). These students need to acquire Accessible words so that they can accelerate their vocabulary growth. We view Accessible words as bridging the gap between what Beck et al. (2013) defined as Tier One and Tier Two—words that are not the most common in our language but that developing language learners need to learn to understand most written texts. Examples for fourth graders with limited vocabularies might include consider and recent.

Imported Words. These are words that enhance a reader’s understanding, appreciation, or learning from a text but are not included in it. For narrative texts, imported words may capture key thematic elements (e.g., prejudice) or address important character traits (e.g., gullible); for informational texts, they may connect to or enhance key concepts presented in the text (e.g., democracy, environmentalism). Carefully selected Imported words will help students analyze and extend what they learn from the text.

How Many Words to Teach

One of the criticisms of teaching individual words has been that teachers are limited in the numbers of words they can teach students directly (Nagy & Herman, 1987). Although this is true, there is ample research evidence...
indicating that students can be taught word meanings in reasonable numbers. Beimiller and Boote (2006, Study 2) reported that children learned 8–12 new root words per week. Beck and colleagues (Beck, Perfetti, & McKeown, 1982; McKeown, Beck, Omanson, & Perfetti, 1983; McKeown, Beck, Omanson, & Pople, 1985) demonstrated that upper-elementary students can learn approximately 2–3 words daily, or 10–15 words per week. Our MCVIP research (Baumann et al., 2009–2012) with fourth- and fifth-grade students demonstrated that students could learn about 8–12 root words each week.

But is explicitly teaching 8–15 words weekly enough? This may be an appropriate number if all words taught were sophisticated Essential or Imported words. We recommend, however, that teachers instruct students also in Valuable and Accessible words, in which case the total number of words per week could grow to 20 or more. This is especially true when considering vocabulary instruction across the curriculum, which includes teaching words from social studies, mathematics, science, and other content areas, as well as from literature.

The total number of words to teach students weekly will, of course, vary depending on teachers’ judgments of the breadth and depth of students’ existing vocabularies, students’ general language skills, the types of texts involved, and the teachers’ instructional goals (Baumann, Edwards, Boland, Olejkík, & Kame’enui, 2003). We recommend, however, that teachers explicitly teach the four types of words we describe in sufficient quantities to provide students with the opportunity to learn upward of 500–600 words per school year. This number would be complemented by significant numbers of words students learn through using word-learning strategies, participating in rich and varied language experiences (e.g., independent reading and teacher read-alouds), and becoming word conscious (Graves & Watts-Taffe, 2008; Scott, Skobel, & Wells, 2008).

**Types of Vocabulary Instruction**

We recommend that vocabulary instruction be the least intensive, most efficient form necessary to provide students with the knowledge they need to understand word meanings and comprehend the texts containing the words. SWIT includes three different types of vocabulary instruction: (1) providing Powerful Instruction on specific words whose meanings are complex and essential to text comprehension (Beck et al., 2002, 2008, 2013); (2) providing Brief Explanations of words that have clear-cut definitions (Baumann et al., 2009–2012); and (3) having students Infer Meanings from context and from morphological cues (Baumann, Edwards, Boland, & Font, 2012).

In summary, the process of selecting the types and numbers of words to teach, as well as the nature of instruction, involves considerable judgment and decision making on the part of teachers. We illustrate this decision-making process and further describe the SWIT approach in the following two sections.

**Using SWIT With a Narrative Text**

Jacquelyn, a fourth-grade teacher, has all her students read a selection each week from their literature anthology and participate in small literature discussion groups in which they read related texts at their instructional levels. This week, the common selection is an excerpt from the classic Newbery Medal–winning Island of the Blue Dolphins (O’Dell, 1960). Island of the Blue Dolphins tells the story of Karana, a young Indian girl who was left alone on a beautiful but isolated island off the coast of California for 18 years. Over that period, Karana survived, showed great courage and self-reliance, and found a measure of happiness in her solitary life. In the excerpt that the class will read, Karana attempts to paddle to the mainland but has to turn back when her canoe begins to leak. Jacquelyn uses the four-step SWIT process to identify and teach words from this Island excerpt.

### 1. Identify Potentially Unfamiliar Words

Jacquelyn reads the selection carefully, underlining in pencil those words she believes are likely to be Unfamiliar to a number of her students. She identifies 22 words as potentially Unfamiliar: advice, ancestors, befal, cabin, crawfish, faint, fiber, fortune, headland, kelp, leagues, lessened, omen, pause, pitch (sticky tar), planks, pursued, sandspit, seeping, serpent, skirted (meaning “go around”), and spouting.

She then creates a chart (see Figure 2) that lists these words in column 1.

### 2. Identify the Four Types of Words to Teach

Jacquelyn returns to the chapter and determines which of the 22 words are Essential, Valuable, or Accessible, and decides whether she should add Imported words. In doing so, she tries to think like the fourth graders in her classroom—who have varying levels of vocabulary, reading ability, linguistic facility, and prior knowledge—to identify the words that will best facilitate their reading of the story.
comprehension of the reading selection and general vocabulary development.

**Essential Words.** Jacquelyn focuses first on words whose meanings are Essential to understand the selection. She considers central narrative elements and the portrayal of Karana. For example, she determines that the words *advice* and *ancestors*, which occur in the following passage, are necessary for students to understand Karana’s cultural heritage and motivation to leave the island:

I remembered how Kimki, before she had gone, had asked the advice of her ancestors who had lived many ages in the past, who had come to the island from that country, and likewise the advice of Zuma, the medicine man who held power over the wind and the seas [italics added]. (O’Dell, 1960, pp. 57–58)

In contrast, Jacquelyn decides that students’ comprehension of the chapter would not be impaired if they did not know the word *serpent*, which O’Dell uses simply to name a constellation Karana saw. From going through the whole of the excerpt, Jacquelyn decides that the following seven words are Essential: *advice, ancestors, fortune, omen, planks, pursued, and seeping*. Jacquelyn places checks (✓) in the “Essential Words” column of her chart. It is important to recognize that not all Essential words will be abstract or complex in meaning. For example, *planks* and *seeping* are concrete words, but it is essential that students understand Karana’s predicament when the canoe planks separate, seawater seeps in, and the canoe begins to sink.

**Valuable Words.** Jacquelyn reviews the chart looking for Unfamiliar words that, although not Essential for comprehending the selection, are Valuable for students to know for general, long-term reading and writing development. Jacquelyn decides that four words are Valuable (*befall, calm, faint, skirted*), and she places checks in the “Valuable Words” column of the chart.

**Accessible Words.** Jacquelyn next determines which of the remaining words are Accessible, that is, higher frequency words that are not likely to be understood by her students who have limited vocabularies, particularly the seven English learners she has in her class. Jacquelyn determines that four words are Accessible (*fiber, lessened, pause, spouting*) and places checks in the “Accessible Words” column of the chart.

**Imported Words.** Jacquelyn recognizes that the theme of the Island excerpt revolves around Karana’s determination to overcome the obstacles she faced while attempting to paddle from the Island to the mainland. Therefore, she decides to teach *determination*, which she writes in the “Imported Word(s)” row at the bottom of her SWIT chart.

Note that Jacquelyn decides not to teach 7 of the 22 Unfamiliar words she initially identified: *crawfish, headland, kelp, leagues, pitch, sandspit, and serpent*. She does so because the words are neither Essential for understanding the selection nor Valuable for general language use, and they are not high-priority words that her English learners and students with small vocabularies need to have Accessible to them. Instead, they are lower frequency words that are related to specific aspects of

**Jacquelyn focuses first on words whose meanings are Essential to understand the selection.**
the story. These words are interesting, add detail, or invoke imagery, so Jacquelyn may take the opportunity to discuss them briefly as they come up while reading the selection. Alternately, she may designate these as optional “Challenge” words, which students can explore independently.

3. Determine the Optimal Type of Instruction

Next, Jacquelyn determines which of the three forms of SWIT instruction is best suited for each word. She does this by considering (a) how concrete or abstract the words are (she knows that abstract words require stronger instruction; Sadoski, Goetz, & Fritz, 1993; Schwanenflugel, Stahl, & McFalls, 1997); (b) which of the three types of words it is, making sure that Essential words are taught in a way that ensures that students learn them well; and (c) whether the words’ meanings can be determined using context or word parts. Applying these criteria, Jacquelyn determines that five words will require Powerful Instruction, four from the selection and the one imported word; nine words need only Brief Explanations; and students can Infer Meanings for two words. Jacquelyn places an X in the appropriate “Type of Instruction” column in the table. In all, she will provide some form of instruction for a total of 16 words.

4. Implement Vocabulary Instruction

At this point, Jacqueline plans and implements lessons and activities to provide Powerful Instruction and Brief Explanations and to guide students to Infer Meanings. She also plans review for all the words.

**Powerful Instruction.** Jacquelyn’s structure for Powerful Instruction (Baumann et al., 2009–2013; Beck et al., 2002, 2013) involves four steps. We use the Imported word *determination* in our example of Powerful Instruction.

- **Provide a clear definition**—Jacquelyn provides a student-friendly definition that the students can readily understand:
  
  *determination* is how people act when they try really hard to complete a task or achieve a goal; a determined person does not give up.

  She displays the word and definition on a chart, chalk, or dry-erase board, or other media (e.g., interactive whiteboard). She has also prepared word cards that include the word, a short definition, and a picture or illustration. She uses the cards to provide students with a definition and a visual mnemonic for each word. Figure 3 shows a word card for *determination*.

- **Provide and discuss context sentences**—Next, she provides several examples of the word in context and has the students read and discuss the meaning in each sentence.

  ✓ Alexandra showed *determination* when she studied for three months to prepare for the Spelling Bee.

  ✓ Michael showed *determination* when he broke three tackles and scored the winning touchdown in the football game.

  ✓ Samantha was so *determined* to do her job well that she stayed late whenever that was necessary to get the day’s work done.

- **Ask questions that require deep thinking**—To promote depth of knowledge, Jacquelyn next has students respond to various kinds of questions about the word.

  ✓ Have you ever been *determined* to do or achieve something? Think about when and then share your ideas with a partner.

  ✓ Which of the following show *determination* and which do not. Give me a “thumbs up” when they do and a “thumbs down” when they don’t.

  ❑ A person continuing to build a tower made out of wooden blocks after it fell down twice.

  ❑ A person eating ice cream for dessert.

  ❑ A person studying hard for a math test after receiving a “D” on the first test.

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*Figure 3: Word Card for Determination*

**determination**

to try really hard; to not give up

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“For words with useful context or easily identifiable word parts, Jacquelyn guides students to apply what they have learned.”

- A dog chewing on a bone in your backyard.
- Do you think that Karana was determined? Explain your answer by giving evidence from the story.

- Provide students with a vocabulary reference sheet—Jacquelyn has prepared a handout for the Island excerpt that includes all Essential, Valuable, and Accessible words. This includes definitions and sentences with the words in context. Students keep these handouts and put them in three-ring vocabulary notebooks for continued reference throughout the year.

It is important to point out that Powerful Instruction was not required for all Essential words. For example, Jacquelyn has decided that she can teach befall through a Brief Explanation and have students infer the meaning of faint by directing them to context clues in the story.

**Brief Explanation.** Jacquelyn has decided to provide short explanations for words in the “Brief Explanation” column in Figure 2 when she and her students reread the Island selection for pleasure, comprehension, and fluency. When she encounters these words, she stops briefly and provides a synonym or short definition and a context sentence. For example, she taught befall as follows:

- A student reads the following text from Island: “I must say that whatever might befall me on the endless waters did not trouble me.” Then Jacquelyn says, “Befall means to happen or take place. For example, we might say, ‘Peng didn’t know what would befall him when he entered the dark cave.’ Or we could say ‘Peng didn’t know what would happen to him when he entered the dark cave.’ O’Dell could have used happen rather than befall, but that would not be as interesting a word. Also, befall kind of tells you that something surprising or maybe even bad might be going to happen.”

**Infer Meaning.** For words with useful context or easily identifiable word parts, Jacquelyn guides students to apply what they have learned. For example, for faint, she would invite a student to first read O’Dell’s sentence, “The waves made no sound among themselves, only faint noises as they went under the canoe or struck against it.” Then she would ask, “Does anyone see a context clue that might help you figure out the meaning of faint?” A student might respond, “I think faint means quiet because waves would make quiet, little sounds when it says, ‘they went under the canoe as they struck against it.’” Jacquelyn would respond, “Yes, faint here means quiet or weak sounds. For example, did you ever hear faint thunder from a storm way off in the distance? That’s different from the very loud thunder you hear when the storm is nearby, isn’t it. Can anyone use faint in a sentence?” A student might offer, “I could hear the faint sound of a dog barking off in the distance.”

**See, Use, and Review All Words.** It is essential that students repeatedly see, use, and review all new words (Baumann et al., 2003; Blachowicz & Fisher, 2010; Graves, 2006, 2009). Students will see the words on the word wall and on their pages in their vocabulary notebooks. Jacquelyn encourages students to use the words in their writing and speaking. She also has students look for the words in their own reading, inviting them to write each word on a sticky note along with the sentence in which it was used, the book title, and page number.

Jacquelyn makes it a point to use a variety of review activities. For example, in Pick Two (Richek, 2005), students see if they can use two words in a sentence, such as, “She lost her fortune when the banker gave her bad advice.” As another example, in Word Bubble, a student sits with her or his back to the board and Jacquelyn writes a new word in a think bubble. Then, students provide clues to the word. For fortune, student might provide clues such as “future,” “will happen,” and “feel something will happen.”

**Using SWIT With an Informational Text**

Alex is a third-grade teacher who gives particular attention to teaching academic vocabulary (Baumann & Graves, 2010) within content domains. His school uses the Seeds of Science/Roots of Reading program (www.scienceandliteracy.org). Alex is teaching the “Soil Habitats” unit, and students will be reading Earthworms Underground (Beals, 2007). The book begins with an introduction that is followed by six colorfully illustrated short chapters that address how earthworms breathe, move, eat, protect themselves, reproduce, and adapt to their environment. Although Earthworms is a short book with a limited amount of text on each page, like many informational books, it contains a number of conceptually challenging words.
“Like many informational books, Earthworms Underground contains a number of conceptually challenging words.”

This example of SWIT deals with the first three chapters of Earthworms: “Introduction,” “How Earthworms Breathe,” and “How Earthworms Move.” The sections in this example are parallel to those presented for the narrative excerpt from Island but emphasize how SWIT is used with informational text. To avoid redundancy with the narrative example, the four SWIT steps are somewhat abbreviated here.

1. Identify Potentially Unfamiliar Words
Alex reminds himself that for informational texts he should teach the word meanings students need to understand the content and learn from the text, which in this case are important science concepts related to soil and earthworms. Applying this mindset, he identifies 14 potentially unfamiliar words in the three chapters: absorb, adaptation, bellies, breathe, burrows, earthworm, habitat, moisture, organism, protect, reproduce, soil, segments, and survive. He lists these on a chart like the one for Island shown in Figure 2.

2. Identify the Four Types of Words to Teach
Alex returns to the three chapters and analyzes the potentially unfamiliar words to determine which are Essential, Valuable, and Accessible; whether any words should be Imported; and whether any of the unfamiliar words do not require instruction. He determines that adaptation, habitat, organism, and earthworm are key to students’ learning from the text, so he designates them as Essential words. He determines that moisture, burrows, and segments are Valuable for students to know and that breathe, survive, and absorb need to be Accessible to students who are English learners or generally struggle with vocabulary. Also, there is a particularly interesting section of text that explains how earthworms use hairs and segments to move through the ground, so Alex decides to teach the Imported word locomotion.

   Alex notes that protect and reproduce appear only once in these chapters and that there is an entire chapter devoted to each of these words/concepts later in the book, so he decides to wait and teach them then. Alex also knows that soil has been discussed many times in preceding books in the unit, so he eliminates it. Additionally, after rereading the chapters, Alex decides that bellies does not merit instruction. Thus Alex decides to teach 10 of the 14 words he identified as potentially Unfamiliar along with the Imported word locomotion.

3. Determine the Optimal Types of Instruction
As Jacquelyn did with Island, Alex considers the type and nature of the words he will teach and how they are used in the text to determine the type of instruction most appropriate for each. As a result of this analysis, Alex determines that adaptation, habitat, locomotion, organization, and survive will require Powerful Instruction; that absorb, breathe, burrows, moisture, and segments can be taught through Brief Explanations; and that the meaning of earthworm can be inferred through the use of word parts and context.

4. Implement Vocabulary Instruction
Here are some examples of how Alex plans to implement the three types of instruction in teaching the 11 words he has targeted.

   Powerful Instruction. Alex recognizes that organism and habitat are key concepts in this text and biological science generally and that the words are associated. Therefore, he teaches them together. He begins by displaying and discussing the definitions for each word from the glossary of Earthworms on an interactive whiteboard as shown at the top of Figure 4. (Alex hides the rest of the chart with the whiteboard slider.)

   He then asks students to provide examples and nonexamples for organism (e.g., mouse and tree versus rock and house) and to describe the habitats of mice and trees.

   Next, he moves the slider on the whiteboard down to reveal rows 1 and 2, which list the organisms earthworms and penguins and possible habitats.

   He asks students if the habitats for the

   “Alex recognizes that organism and habitat are key concepts in this text and in biological science generally and that the words are associated.”

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organisms are correct (as they are for *earthworms*) or incorrect (as they are for *penguins*) and to make changes if they are not correct (penguins live only in the southern hemisphere). Next, he reveals rows 3 and 4 and asks students to work in groups of three to come up with examples they can add for these rows. Volunteers then write the names of their organisms and their habitats on the whiteboard. Alex reveals the remainder of the chart on the whiteboard and has the groups construct answers by filling in the missing organisms or habitats. The lesson concludes with a class discussion of the groups’ responses.

**Brief Explanation.** Alex notices that *absorb*, *breathe*, and *moisture* are contained in several sentences from page 6 of *Earthworms*, which he displays on the interactive whiteboard and reads aloud:

“To breathe, an earthworm absorbs air through its skin! An animal that breathes through its skin needs moisture.”

Alex then states: “Let’s look at the three words I have underlined and discuss what they mean. What does it mean to *breathe,*” to which a student responds, “to take air into your lungs.” Then he says, “That’s correct, but some animals breathe without lungs, like earthworms do. They take in air through their skin, which we call *absorbs.* Can you think of anything that absorbs something?” to which students respond that *paper towels* or *sponge* absorb liquids.

Alex continues, “Those are good examples. Earthworms also absorb something, but it is air, not a liquid. Reread the last sentence and tell me what earthworms need to have to absorb air?” Students say in unison, *moisture,* to which Alex responds, “Yes, and the word *moisture* means ‘a little wet.’ So, we have learned that to *breathe* is to take in air, to *absorb* is to take air in through the skin, and *moisture* means a little wet. Good job!”

### Infer Meaning

Even though Alex knows that students are familiar with the word *earthworm*, he wants to ensure that they are certain about its meaning. To do this, he has students read to themselves the second paragraph on page 4 of *Earthworms*, which is, “This book is about an animal that lives in an underground habitat. This animal is an earthworm.”

Alex says, “We have learned about context clues, and there is a definition context clue for earthworm in this sentence. What is it?” A student responds, “an animal that lives in an underground habitat.” He continues, “That’s correct; an earthworm lives underground.” Then, he says, “We also have learned about word parts. Are there any word parts in *earthworms*?” A student replies, “Yes, *earthworms* is a compound word,” to which Alex asks, “What are the two root words in this compound?” Students respond *earth* and *worms,* to which Alex says, “Yes, *earthworms* is a compound word that means worms that live in the earth.”

Having gone through the SWIT process to identify words to teach and then having taught the words he selected from the Earthworms chapters, Alex has equipped students with the words they need to understand and learn from this informational text.

**Conclusion**

Vocabulary knowledge is critical to the long-term literacy development of all students, and high-quality vocabulary instruction should be a priority for teachers across all grades. Fortunately, there are numerous articles and books that provide strategies and activities for teaching individual words. Among the books we have found particularly useful are those by Beck, McKeown, and Kucan (2013); Blachowicz and Fisher (2010); Graves (2006); and Stahl and Nagy (2006).
“The more you use SWIT, the easier and less time-consuming it will become.”

Unfortunately, although the CCSS repeatedly stress the importance of teaching vocabulary, there exists little information to guide teachers in the complex task of selecting words to teach from the texts that their students read. To address this need, we have drawn on our research with teachers to develop SWIT. We believe that the SWIT process will help teachers be thoughtful in selecting words for instruction, more strategic in the way that they teach word meanings, and more conscious of the needs of English learners and other students with a great need for vocabulary development.

In closing, we want to emphasize that using SWIT—identifying the optimal Essential, Valuable, Accessible, and Imported words to teach—is a challenging task. SWIT will require considerable teacher judgment to implement well, and assist your students in understanding and learning from the texts they read and in acquiring more powerful vocabularies.

REFERENCES
TAKE ACTION!

1. Select a short informational text that you plan on having your class read and that contains some challenging vocabulary.

2. Identify the potentially unfamiliar words in the text.

3. Identify the subset of these words that students need to understand the text or that represent important concepts in the content area represented by the text.

4. Identify those words that students can infer the meanings of using their contextual or morphological analysis skills.

5. Decide which of the words require in-depth instruction and which can be taught with brief explanations.

6. Cull your lists of each type of word so that you have a manageable number to teach, no more than 12 and preferably somewhat fewer.

7. Create your instruction, teach the words, and write an evaluation of the process as a whole and how you will use it in the future.


Kucan, L. (2012). What is most important to know about vocabulary? The Reading Teacher, 65(6), 360–366.


Kucan, L. (2012). What is most important to know about vocabulary? The Reading Teacher, 65(6), 360–366.


WORDS, WORDS EVERYWHERE, BUT WHICH ONES DO WE TEACH?

We think it is time to move beyond the study of individual mechanisms [in vocabulary instruction] and ask whether evidence-based vocabulary instruction and curriculum packages can be developed that will make a difference in real classrooms. Such instruction will be multicomponential and longer term than any of the vocabulary instruction addressed in experiments to date. (p. 226)

In keeping with Pressley et al.’s recommendation, the purpose of our multiyear study was to explore MCVIP when taught by upper-elementary teachers in their classrooms.

Method
We conducted a formative experiment (Reinking & Bradley, 2008), which involves incorporating a promising “instructional intervention into authentic instructional settings [that] is modified formatively based on qualitative, and occasionally quantitative, data indicating what is or is not working and why” (Bradley, Reinking, Colwell, Hall, Fisher, Frey, & Baumann, 2011, p. 411).

The “experiment” aspect of formative experiments comes not from comparing students’ performance in experimental (new intervention) and control (regular curriculum) groups but rather from an ongoing experimentation with the intervention by making changes, improvements, and modifications that are prompted by data that are continuously collected on student performance and from teacher and student feedback on the program.

Our formative experiment involved a total of 606 students in 15 classrooms in 3 schools, each of which was located in a socioculturally different community in one of three U.S. states. Each research site was led by a university researcher and research assistants, who worked intensely with four or five teachers. We conducted three annual replication studies of MCVIP that enabled us to build on our growing knowledge and experience about how to enhance its effectiveness, which we accomplished by using an iterative cycle of professional development, program implementation and modification, and analysis and program revision both within and across each year. Strong, trusting, synergetic professional development and research collaborations grew among the university and school personnel at each site (Davis, Baumann, Arner, Quintero, Wade, Walters, & Watson, 2012).

MCVIP included several strategies representing each of Graves’s (2006) four components. For example, the Providing Rich and Varied Language Experiences component included read-alouds and independent reading and writing (Hiebert & Reutzel, 2010), character trait analysis (Manyak, 2007), and a variety of vocabulary graphics (Blachowicz & Fisher, 2010). We provide detailed descriptions of all components and many instructional examples on the Vocabulary edublog (Baumann et al., 2012, vocablog-pics.blogspot.com/2012/10/mcvip-multi-faceted-comprehensive.html).

We gathered qualitative data through field notes and video and audio recordings of vocabulary lessons, research team meetings, and children focus groups. These data were supplemented by informal and formal interviews, written reflections, and instructional artifacts. We gathered quantitative data using four measures we constructed: (1) learning of words explicitly taught (Words), (2) use of context clues to infer word meanings (Context), (3) use of morphological clues to infer meaning (Morph), and (4) word conscious (WC).

We also used one standardized test as a transfer measure: the vocabulary subtest of the Gates-MacGinitie Reading Tests.

LITERATURE CITED

Appendix—Summary of the Research Project in Which SWIT Was Embedded

Background
In our three-year research study (Baumann et al., 2009–2012), we sought to determine the feasibility of implementing in fourth- and fifth-grade classrooms an approach we refer to as the Multifaceted, Comprehensive Vocabulary Instructional Program, or MCVIP. The program is based on Graves’s (2006) multifaceted approach to vocabulary instruction, which has a strong research base for each of its four components: (1) providing rich and varied language experiences (Cunningham & O’Donnell, 2012), (2) teaching individual words (Baumann et al., 2003), (3) teaching word-learning strategies (Graves & Silvermann, 2011), and (4) fostering word consciousness (Graves & Watts-Taffe, 2002).

Although the vocabulary instruction research literature is large, there have been few studies that explored complete programs involving multiple facets of vocabulary, were of significant duration, and were conducted in natural school contexts (Kamil & Hiebert, 2005; Nagy, 2005; NICHD, 2000). Pressley, Disney, and Anderson (2007) summarized the situation this way:

(Gates) (MacGinitie, MacGinitie, Maria, & Dreyer, 2002).

**Findings**

Qualitative data revealed that students grew in knowledge of, awareness of, and interest in vocabulary as they learned more words and grew in ability to use text-based clues to infer the meanings of previously unknown words. Students developed nuanced approaches to identifying and dealing with vocabulary in texts they read, and the words we taught explicitly and incidentally in MCVIP found their way increasingly into the students’ speech and written compositions. Qualitative data also demonstrated that teachers grew in knowledge of the multiple dimensions of vocabulary instruction, confidence in teaching vocabulary, motivation to devise and implement new vocabulary strategies and activities, and ability to integrate vocabulary across the curriculum.

Analyses of the researcher-constructed quantitative measures, which had strong reliability (median reliability = .89), demonstrated statistically significant gains from pretest to posttest on all Words, Context, and Morph tests for each year. Using Cohen’s (1988) $d$ statistic to estimate the magnitude of student gains, most effect sizes were in the medium (.5) to large (.8) range, whereas some were much larger (e.g., the Words test effect sizes were in the .9 to 1.6 range).

There also was a clear indication that, as the researchers and teachers developed MCVIP across the three years of the study, the students demonstrated greater gains (e.g., Morph went from $d = .56$ in year 1 of the study to $d = .83$ in year 3). Analysis of the Gates-MacGinitie Reading Test, a general measure of vocabulary that tested words not included in MCVIP, also demonstrated statistically significant gains from pretest to posttest and showed that students made greater gains across each of the three successive years. Effect sizes for the Gates extended scale scores grew from .32, to .41, and .49 for years 1, 2, and 3, respectively (see Baumann et al., in press).

In summary, the three-year formative experiment revealed that our Multifaceted, Comprehensive Vocabulary Instructional Program could be implemented successfully by teachers in upper-elementary classrooms. The Selecting Words for Instruction from Texts (SWIT) procedure described in this article was developed within the MCVIP research program and enabled the teachers and researchers to identify the Essential, Valuable, Accessible, and Imported words they deemed to be important for students to learn.