



Professional Development Guide

Vocabulary

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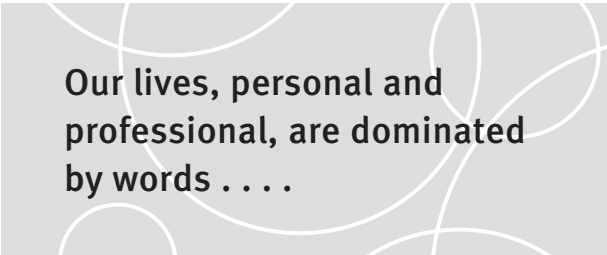
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Vocabulary

Our lives, personal and professional, are dominated by words—the words we speak and hear and the words we read and write. The richer our vocabulary is, the better able we are to organize thoughts, to explain ideas, and to share knowledge. Words are an integral part of the very fabric of our lives. Words give texture, depth, organization, and perspective to the world in which we live.



Our lives, personal and professional, are dominated by words

The approach to teaching vocabulary used in *SRA Imagine It!* reflects the belief that whatever system we use to organize our thinking needs to be approached explicitly, systematically, and continually. If children are to become fluent, confident, and enthusiastic readers—readers who easily gain meaning, pleasure, and knowledge from a variety of print materials—they need extensive experience with language and literature plus instruction in the skills necessary for accessing meaning in print. The building of a strong broad-based vocabulary is primary to this goal.

What Is Vocabulary, and Why Is It Important?

Vocabulary is the sum of the words used by or understood by a person.

A Tool for Thinking

Development of vocabulary is important for several reasons. First, vocabulary is a tool for thinking. Baker et al. (1998a) note that without vocabulary, students are limited in their ability to restructure familiar concepts into new or novel combinations. The world we live in is changing rapidly. With the transformation of the United States into a “knowledge society” (Drucker, 1993, as cited in Baker, Simmons, and Kame’enui, 1998), students need to be prepared to deal with increasing amounts of written information in increasingly complex ways. To do this, students must have the necessary skills. One critical tool for constructing meaning and delivering information is vocabulary knowledge—the ability to access the meaning of words quickly and efficiently, to think about how these words impact what we already know, and to add new knowledge and insight to our prior understanding.

Successful Comprehension

Second, vocabulary knowledge directly affects successful comprehension (Beck, McKeown, and Omanson, 1987; Stahl, 1999). Much research shows that a strong relationship exists between vocabulary and comprehension. Readers who comprehend text well have extensive vocabularies (Anderson and Freebody, 1981; Nagy, Anderson, and Herman, 1987). Good readers can access the meaning of words rapidly and automatically in order to make sense of text. Improving student vocabulary impacts reading comprehension (McKeown, et al. 1983; 1985). This makes sense,

yet meaningful, purposeful vocabulary instruction often appears tangential rather than integral to comprehension instruction.

Recent scores from the National Assessment of Educational Progress (NAEP) show that thirty-seven percent of students read below the basic level, thirty-one percent read at the basic level, and only twenty-four percent read at the proficient level. The NAEP test is given in fourth grade, as students are just beginning to deal with text that has increased vocabulary and conceptual loads. Many factors affect student performance on comprehension measures. Students' limited vocabulary or their lack of understanding about how to deal with unknown words will affect their performance on comprehension measures such as these, especially measures requiring the reader to make inferences and deal with content-specific text. The use of structural elements to determine word meaning does appear to have a significant impact on comprehension.

Foundation for Success

Finally, the lack of vocabulary development in the early years appears to have a direct impact on children's later success in learning to read. Limited vocabulary knowledge affects successful reading even if students have learned how to read accurately and fluently (Becker, 1977; Chall et al. 1991).

When Should Vocabulary Instruction Begin?

Vocabulary development begins long before children enter school. Family

members serve as children's first vocabulary teachers. Children have varied experiences in learning new words. Even though there is remarkable consistency in how children learn words and the order in which they learn words, large differences exist in the number of words children know when they come to school.

Good evidence shows that children from various backgrounds acquire word meanings in roughly the same order (Biemiller and Slonim, 2001; Biemiller, 2005). For practical purposes, this means that a child with an average-sized vocabulary of six thousand root word meanings at the end of grade two knows mainly the same word meanings as a grade four child who knows about six thousand root word meanings. It appears that for children with small vocabularies, improving vocabulary mainly means moving children through the sequence faster.

The school's role in teaching vocabulary should begin the day children enter school. Education cannot control the different learning experiences before children come to school, but it can make a difference after children enter school. Biemiller (2000) notes that whereas all children might not have the same opportunities to learn new words, the research indicates that "children can acquire and retain two to three words in a day through instruction involving contextualized introduction and explanation of new words" (p. 29).

Teaching Vocabulary

Vocabulary instruction can and should be taught as early as kindergarten. When children first come to school, some have a fairly large listening and

speaking vocabulary. According to Beck and McKeown (1991), the range of this speaking vocabulary is somewhere between 2,500 and 5,000 word meanings. By the end of second grade, average students have a speaking and listening vocabulary of about 6,000 base word meanings (Biemiller, 2005). From second grade on, vocabulary is no longer typically defined in terms of speaking and listening, but in terms of words understood and used in reading and writing. Graves, Juel, and Graves (1998) estimate that by the end of second grade, students' reading vocabularies range between 2,000 and 5,000 words. This vocabulary growth continues through the years, with typical readers increasing their vocabulary by an average of 1,000 base words per year (Anglin, 1993; Biemiller, 2005).

Given these figures and the limited amount of vocabulary formally taught in school today, the assumption is often made that students acquire the bulk of new vocabulary primarily through implicit learning while reading. However, by sixth grade, children have acquired half or more of their vocabulary through oral experiences that took place before third grade. After mastering reading, children continue to report learning the majority of new words from direct explanations by



others. Thus, basing instruction mainly on implicit learning is chancy at best and disastrous at worst.

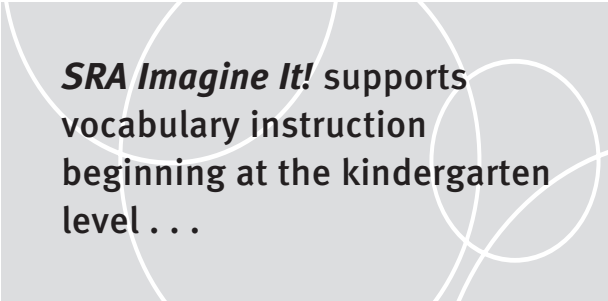
The need to teach vocabulary beginning in kindergarten is made compelling by the fact that those students who have larger vocabularies upon entering kindergarten do better in acquiring new words than those with smaller vocabularies. This means that as early as kindergarten, a vocabulary gap begins. As Adams (1990) noted, "We can directly access the meanings of only the words we already know. The referents of new words can be verbally explained only in terms of old words. This can be done either explicitly, by presenting their definitions, or implicitly, by setting them in a context of old words that effectively constrain their meanings" (p. 205). It appears critical that a primary responsibility of school is to help children, from the outset, develop vocabulary so they have a solid foundation for expanding their understanding and use of words to get meaning from text and to give them the base for learning new words. This is especially true in the primary grades, when reading is really not an effective source of new vocabulary. By the end of grade two, children in the lowest quartile are two years behind their grade level peers

From second grade on, vocabulary is no longer typically defined in terms of speaking and listening, but in terms of words understood and used in reading and writing.

in vocabulary. These same children are four grade levels behind the children in the top quartile. Those differences are usually *not* made narrower in later school years (Biemiller and Slonim, 2001).

At present, schools leave early vocabulary acquisition to parents. This means that those from advantaged homes acquire a great many word meanings before they begin to read fluently, while children from less-advantaged homes have much less opportunity to build vocabulary (Hart and Risley, 1993). When we leave vocabulary acquisition up to caregivers at home, we virtually guarantee that vocabulary-advantaged children will continue to achieve academically more than their less-advantaged classmates. Until schools take on the responsibility of ensuring adequate vocabulary acquisition in the primary grades, schools cannot do much to equalize school achievement.

SRA Imagine It! supports vocabulary instruction beginning at the kindergarten level as children experience well-written stories and expository text that introduce new words and concepts. Children are pretaught key words, experience these words, talk about the meanings of new words during reading, and use words in classification activities, writing, and discussion after reading. A continued emphasis is placed on vocabulary learning throughout the ***SRA Imagine It!*** program.



SRA Imagine It! supports vocabulary instruction beginning at the kindergarten level . . .

What Vocabulary Should Be Taught?

Not all unfamiliar words in a selection need to be pretaught. If the word is not critical for understanding the important ideas in the text, there is no reason to preteach the word. If the word is an example of a class or category students know, then this word can be clarified during reading. In a selection entitled “Crinkleroot’s Guide to Knowing Animal Habitats,” it is obvious that *hawks* and *swallows* are types of birds. Having a deep understanding of these birds is not as important as understanding how they adapt to their habitat. Because the reader can quickly connect these unfamiliar words to a familiar concept, preteaching them is not necessary or especially beneficial. In addition, it may not be important to preteach words that are clearly defined in the text. Stopping while reading to discuss and clarify the meaning of the word may be more valuable than preteaching it.

Words that should be pretaught are those that are necessary for making sense of the narrative (story) or key ideas that are not explained in an expository text. Many word meanings in texts are not critical for understanding the text, but the words are generally useful. These include words that have potential for appearing frequently in text, or words that support generalized learning—for example words with Greek or Latin roots (Graves, Juel, and Graves, 1998). These words are best taught after a story has been read for the first time. New meanings can be best understood as part of a narrative that is understood. ***SRA Imagine It!*** will introduce four to ten

such word meanings, depending upon the grade level, with each reading of the *SRA Imagine It! Big Books* and *Student Readers*. Children will typically learn about forty percent of the word meanings they are taught if word meanings are explained in context and reviewed. Also, some children will already know some of the words before they are taught.

Necessary for Understanding

Words that are necessary for understanding important ideas in text may be new words or words that are used in a unique or different context. Learning a new usage deepens students' understanding of an already familiar word and helps them appreciate the versatility of words. For example, in a selection on protective coloration, it is important to teach and understand the meaning of the word *camouflage* as it relates to animals. Camouflage is more than just protective coloration, which is what most students associate with the word because they may be familiar with camouflage suits worn by hunters or military personnel. In this case, the understanding of the word *camouflage* needs to be expanded beyond color to include shape and form.

Frequently Appearing Words

In the same context, consider the word *surroundings*. *Surroundings*, though frequently used in a specific context, is a commonly used general term. The references to our surroundings are numerous and encompass many different areas. It would be hard to read a daily newspaper without encountering the word *surroundings*. Therefore, explicitly

teaching this word will serve not only to help in understanding the specific piece of writing but will add a widely used word to the students' vocabulary.

Greek and Latin Roots

Although words with Greek and Latin roots are often related to specialized vocabulary, preteaching words with commonly used roots provides an instructional opportunity for teaching how a root can combine with different affixes to create new words with related meanings. If a word such as *aquarium* appears in a selection, it might make sense to preteach it even though it is not a word that is critical to understanding the main points in the text. The Latin root *aqua*, meaning "water," is found in a number of words: *aquarium*, *aquatic*, *aqueduct*, *aquifer*, *aqueous*, and *Aquarius*. Teaching *aquarium* as a means of understanding other words gives students useful, generalizable information. The same is true for Greek roots. For example, *aero* means "air" and is found in words such as *aerodynamics*, *aeronautical*, *aeroplane* (*airplane*), and *aerosol*. Instruction of this type usually begins around fourth grade as students begin to encounter words with Greek or Latin roots in content area reading.

How Should Vocabulary Be Taught?

Unfortunately, there is no clear direction regarding the most effective way to teach vocabulary. Nagy (1988) discusses

two basic reasons for the failure of most vocabulary instruction. First, most vocabulary instruction does not produce sufficient in-depth knowledge to support comprehension. Second, the texts that students read do not support vocabulary growth. In general, texts seem to have sufficient redundancy so that the reader does not need to understand or know every word in the text to comprehend its meaning. While Nagy and Anderson (1984) have suggested that much of vocabulary development is a direct outcome of reading, if the text does not create sufficient demands on the reader to learn and use the vocabulary, then less incidental learning of new words may occur than is thought.

An analysis of reading texts by Chall and Conrad (1991) found the vocabulary load in reading programs to be less demanding than the vocabulary load in content-area text. Similarly, Stotsky (1997) noted the limited nature and scope of reading vocabulary in most contemporary reading series. If, in fact, one accepts the basic premise that word knowledge—vocabulary—is a tool to support thinking and organizing ideas, most reading programs do not provide sufficient opportunities to develop this critical tool in the context of reading. In reviewing the body of work on teaching vocabulary, one will note the wide ranges of teaching techniques and activities, from semantic mapping to word webs to feature analysis to key-word techniques. In examining all these different methods for teaching vocabulary, one can see that they share some common principles. All these methods

- work with the known to develop the unknown.
- get students involved.

- make vocabulary learning a thinking activity.
- provide multiple opportunities for students to use the words.
- use contextual and definitional information.

Reading Aloud and Rereading

Children enjoy hearing stories read aloud. However, children do not acquire word meanings from hearing a story once. Reading a story once is good entertainment but does little for word meaning acquisition in the primary grades. However, when word stories or expository texts are read repeatedly (two to four times) and meanings are taught, twenty-five to forty percent of word meanings are acquired (reviewed in Biemiller and Boote, 2006). Repeated reading with word explanations works with upper elementary children as well. However, other effective methods also work with older students.

Active Involvement

Students need to be involved in learning about words. They need to think about words, determine what a word means, and substitute new definitions in sentences. Students need to think not only about what the word means but what a functional definition might be, how the word is used, and how the word is connected to others they know. Having students involved with creating functional definitions as opposed to teachers giving definitions appears to be useful for learning new words.

Definition and Context

Learning new words can involve definitional and contextual information. Students learn new vocabulary better when they receive and develop information beyond the definition level. Dictionary definitions pose many problems. First, a word often has multiple definitions, and unless students truly understand the context, they usually go to the first definition, which may or may not be the most appropriate one. Second, many dictionary definitions require knowledge of the meaning of the word in order to understand the actual definition. In looking up the word *camouflage*, four definitions as a noun and two as a verb appear. The verb definitions require that a reader understand the noun definitions. The noun definitions use such words and phrases as *act or technique of disguising . . .*, *a device or stratagem for concealment*, and *the constructing of decoy objects . . .*. The development of a functional definition created by students seems to be much more valuable and much more specific to the actual use of the word in the text. *Camouflage*, then, could be defined as “the ability of animals



to change color or form in order to protect themselves from other animals that may want to harm them.”

Full Understanding

Students need to understand the how and the why of words. Connecting newly learned words to synonyms and antonyms (when appropriate), developing examples to achieve deeper understanding, or rewriting dictionary definitions as functional definitions helps learners connect the new word to something they already know or to transform the definitional information into useful information.

Multiple Exposures

Students need multiple exposures to words. Multiple exposures can occur through different learning experiences. Obviously, this should be done through reading. Students should have multiple opportunities to encounter target vocabulary in text. Sometimes this is easily achievable. For example, in a unit on animal camouflage, students could encounter the word *camouflage* multiple times across different selections. Each time the word is encountered in text, however, readers can achieve deeper understanding as they learn that camouflage is not only about an animal concealing itself through protective coloration, but through changes in form and through mimicry as well. Consequently, understanding of the word *camouflage* deepens with each encounter. However, not all vocabulary words are encountered this way. Often the word may be used only one or two times in text in

a grade level, so additional experiences need to be created. Preteaching and post-teaching vocabulary words, using vocabulary words during discussion and for writing, posting and revisiting vocabulary words on a regular basis, and making vocabulary words a part of a personal dictionary that students can refer to throughout the year will give students multiple exposures to new words.

Students need multiple exposures to words.

Manipulating Words

In addition, Beck, McKeown, and Omanson (1987) recommend that vocabulary instruction involves students manipulating words in “varied and rich ways.” Discussing, manipulating, and connecting words to familiar words and experiences are essential to “rich instruction.”

Explicit vs. Implicit

The question still remains—how should these instructional principles be applied to instruction? Should vocabulary be taught explicitly or implicitly or by some combination of the two?

Explicit

Explicit vocabulary instruction often involves no more than giving students definitions or features of the words in context. In *SRA Imagine It!* this instruction is done prior to teaching and after the first reading of a selection. Even with the most comprehensive teaching, individual students

will only acquire twenty-five to forty percent of the words taught. When more are taught, more are learned.

Explicit instruction needs to be expanded beyond this superficial level if students are to acquire a deeper understanding of new words to use and apply them to understanding text, sharing ideas, and learning. Students need to understand words, how they are used, and how they connect to words in their current repertoire. They need direct explanation or modeling of how to determine the meaning of new words. Just as comprehension strategies are modeled with think-alouds, this same overt thinking can be applied to vocabulary learning.

Implicit

Implicit instruction presumes that students will infer the meaning of words as they are reading. Wide reading is considered critical. In many cases, so much redundancy appears in text that the reader does not have to know the meaning of unfamiliar words to understand the text. When readers encounter a difficult word, they often skip the word, particularly if they are poorer readers. The implicit approach also assumes a certain base level of



vocabulary knowledge the reader can connect with to make sense of new words and more complex concepts. For students who do not have this base, learning words implicitly from text proves problematic.

What Are the Strategies We Need to Teach Students?

Several different strategies for teaching vocabulary exist, including using context, apposition, and word structure. Each can be taught explicitly to students.

Context

Context is the environment in which words occur. The context, or the words and sentences surrounding a particular word, determines which meaning of the word applies. For example, **lean** in “May I have some **lean** meat?” involves a completely different meaning than in “Jamie was **leaning** on the wall.” In both cases, if a reader had no knowledge of the meaning of **lean** in the sentences, he or she could get no further than that “lean” is a characteristic of meat (in the first sentence) or some action applied to or on a wall (in the second sentence). Thus, although context is necessary for understanding specific words, it has serious limitations for acquiring meanings. Brief explanations will usually be more effective than attempting to extract meanings from context.

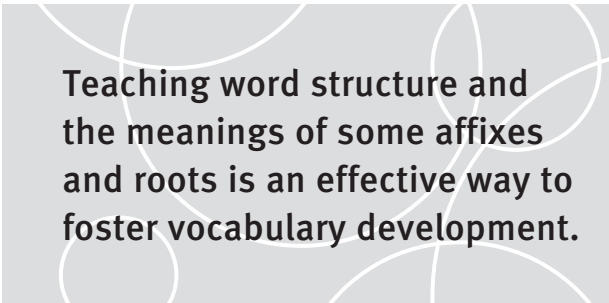
Apposition

Apposition, or definitions provided within the text itself, is a form of context and is

often found in content-area text. Although apposition seems so obvious that it almost does not merit instruction, many students read past the appositive statement without recognizing its role.

Word Structure

Word structure requires the decomposition of a word into meaningful parts—affixes and suffixes. Teaching word structure and the meanings of some affixes and roots is an effective way to foster vocabulary development. Biemiller (2005) suggests that learning new vocabulary can be made more manageable if we focus on root words rather than on the inflectional forms. If Biemiller is correct, and students acquire about one thousand root-word meanings per year, many of which are similar in meaning, then vocabulary instruction becomes more clearly defined and manageable. By learning roots and affixes, students build a body of knowledge from which they can draw when they encounter unfamiliar words during reading. Rather than being intimidated by long words, they have a strategy to determine the meaning of the word. Adams (1990) suggests that focusing on word parts such as affixes and roots reduces the size of an intimidating word and allows students to focus on relevant information within the word.



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By learning roots and affixes, students build a body of knowledge from which they can draw when they encounter unfamiliar words during reading.

Prefixes are small, meaningful units added to the beginning of a base word or root. They contribute to the meaning of a word. White, Sowell, and Yanagihara (1989) note that only twenty common prefixes account for ninety-seven percent of the words with prefixes found in school English. Teaching the top nine to third graders along with a strategy for breaking words into parts—roots and affixes—appears to support word learning. The prefixes *un-* (“not”), *re-* (“again”), *in-* (“not”), and *dis-* (“not” or “away”) are used in sixty-five percent of words with prefixes (Honig et al., 2000). Teaching these four key prefixes appears manageable and useful.

Suffixes are meaningful units added to the end of words. Suffixes, such as the common inflectional endings *-ing*, *-ed*, *-s*, and *-es*, are found in most children’s oral language and are usually understood when encountered in reading. These inflectional endings account for sixty-five percent of the most frequent suffixes found in printed school English (White, Sowell, and Yanagihara, 1989). Children may not need direct instruction on the meaning of these suffixes, although they may need some instruction with spelling changes that occur when they add these endings to words.

Derivational suffixes, new words derived from base words but with different meanings (for example, *hope* and

hopeless), often need instruction. Although prefixes seem reliable in their spelling and have unambiguous meanings, the definitional teaching of suffixes appears less reliable (Honig et al., 2000). It may be hard to isolate the root, and often spelling changes may result (for example, *-ion*, *-tion*, *-sion*, *-ation*, and *-ition*). It may be useful, however, to teach the more consistent suffixes such as *-ful* and *-less* to show how suffixes, like prefixes, affect word meaning.

Root words can take two forms. The root may be an actual word with an added affix, such as *unimportant* or *national*. A pronunciation change occurs when a suffix is added to *nation*, but the word is clearly recognizable. In this situation, if the root is part of the students’ vocabulary, they can readily identify the root and the affix and begin to construct meaning. In other cases, the root is less clear, as in the words *biology*, *aquatic*, or *chronicle*. In these instances, the root may not be part of the students’ vocabulary. Many content-area words have their roots in Greek and Latin. Stahl and Shield (1992) and Honig et al. (2000) suggest teaching commonly occurring Greek and Latin roots. Teaching these roots as families may be particularly valuable, because it enables the student to appreciate that knowing a single root has implications for learning a number of words. For example, understanding that *chron* (Greek root) means “time” helps when the reader meets words such as *chronicle*, *chronology*, *chronological*, *chronic*, and *synchronize*. Although many of the words derived from Greek and Latin roots may be specific to content-area learning, as in the case of the words derived from *chron*, many are also part of a general literate, not content-specific, vocabulary.

Roots	
Greek	Latin
arche – a beginning – <i>archaeology, architecture</i>	aequus – equal – <i>equation, equator</i>
aero – air – <i>aerodynamics, airplane</i>	anima – spirit, breath – <i>animal, unanimous</i>
bio – life – <i>biography, amphibious</i>	aqua – water – <i>aquatic, aquarium</i>
chronos – time – <i>chronology, synchrony</i>	audire – to hear – <i>audition, auditorium</i>
geo – earth – <i>geography, geology</i>	candere – to shine – <i>candle, chandelier</i>
graph – write – <i>autograph, biography</i>	caput – head – <i>captain, capital</i>
helios – sun – <i>helium</i>	cedere – to come, to yield – <i>recess, decess</i>
hydris – water – <i>hydrogen, hydroelectric</i>	credere – to believe – <i>incredible, credence</i>
logos – to speak – <i>apology, dialogue</i>	duo – two – <i>dual, double, duplicate</i>
metron – a measure – <i>diameter, symmetry</i>	finis – end – <i>finish, finite, refine</i>
monos – single – <i>monarch, monopoly</i>	gradi – to step – <i>degree, gradual, grade</i>
morph – shape – <i>morphology, amorphous</i>	gratus – pleasing – <i>congratulate, agree, grateful</i>
pathos – suffering – <i>sympathy, apathy, pathetic</i>	liber – free – <i>liberal, library, liberty</i>
photo – light – <i>photography, photomagnetic</i>	mirus – wonderful – <i>admire, miracle, mirage</i>
theo – I see – <i>theater, theory</i>	nocere – to hurt – <i>innocent, obnoxious</i>
therm – heat – <i>thermometer, thermonuclear</i>	portare – to carry – <i>portable, export</i>
scribere – to write – <i>describe, scribble</i>	
rupt – break – <i>corrupt, rupture</i>	
terra – land, earth – <i>terrain, terrier, territory</i>	
vivere – to live – <i>revive, survive, vivid</i>	

Other Sources

In addition to teaching about context and structural elements, students need to know that other resources are available to them. Both can be modeled or taught explicitly.

Ask

In school, students read with each other. One of the real benefits of this is the potential for collaborative effort—for students to solve problems as they read. One problem is dealing with unknown words. As students come to unknown words, they can stop and use each other as resources. Stahl (1999) talked about the importance of student involvement and the discussion of new words as part of building word knowledge, yet students

seldom engage in real discussion about a word. Stopping to ask about a word often results in the person who responds giving an example, explaining the meaning in functional terms, or making a connection to more familiar words. Other students begin to share their understanding and give additional examples. Discussion of a word deepens understanding. Encouraging the use of fellow students as a resource becomes yet another valuable opportunity for explicit instruction.

Dictionary

Using the dictionary to determine the meaning of an unfamiliar word is perhaps the least productive avenue. As any teacher knows, students may look up the word, read the first definition, and



then never read on. In addition, many dictionary definitions are difficult to understand because they often make use of equally unfamiliar words to define the target word. Scott and Nagy (1997) note that teaching word meaning using a dictionary often leads only to a superficial understanding of a word and does not result in long-term learning of words. This is not to imply that teaching students how to use the dictionary is not useful. It is an important resource, and as students become interested in words, they may actually use the dictionary to explore words and their origins.

Although context, structure, apposition, dictionary use, and asking someone are discussed individually, the reality is that readers should use all these strategies and skills flexibly as needed.

Self-Monitoring

Students need to understand how to use these skills strategically while reading and become responsible for their use. As they read, students need to stop when they come to an unfamiliar word, decide what they know and do not know about it, and then try to determine its

meaning. Stopping is a critical beginning. As teachers, how many of us have seen students read an unfamiliar word and never stop to reflect on the word and its impact on meaning?

Stop

The first step is getting students to stop! After students have stopped, they need to pull from the repertoire of skills they have learned to determine the meaning of the word. “Sparrows and finches don’t migrate, so you can watch them at backyard feeders throughout the year, chirping and chattering as they pick up seeds.” The sentence gives some clues to the meaning of the word *migrate*—these birds can be seen all year; they do not leave the city. Interestingly, the more specific meaning of *migrate*—to move from one climate to another to ensure a food supply and breeding location—is not available from this context or any of the other surrounding text.

Clarify

Stopping to clarify a strategy developed as part of reciprocal teaching (Palincsar and Brown, 1984) can be explicitly taught through modeling, initially by the teacher. The teacher can conspicuously or overtly present thinking on how to clarify through think-alouds. For example, the teacher might say, “The word *camouflage* seems critical for understanding ideas being presented in what I’ve read so far. I can get some general idea that it is about protection, but if I go to the next sentence, the author defines it precisely for me.” Scaffolded learning continues as the

teacher moves from doing all the thinking to sharing the thinking with the class. Now, instead of the teacher determining how to clarify and develop the definition, the teacher prompts the student to stop, identify how to determine what the word is, and then decide on a functional definition or an example. Gradually, the teacher removes all the scaffolding, and the responsibility for clarifying—doing the “difficult” thinking—lies with the student.

Knowledge Rating Checklist

Simple ideas, such as the use of a “knowledge rating checklist” similar to the one Blachowicz (1986) developed, may be helpful for students to use to monitor their thinking as they stop to clarify vocabulary in connected text.

- ✓ Do I need to know the meaning of this word?
- ✓ What do I know about this word?
- ✓ Have I ever seen or heard it before?
- ✓ What clues does the author give that can help me figure it out?
- ✓ What information does the author include in the text to help me determine the meaning?
- ✓ How is this like other words I know?
- ✓ How can I connect this to what I already know? What are familiar examples?
- ✓ What word parts do I know?
- ✓ How can I define this word?
- ✓ Can I substitute the meaning in the sentences, and does it make sense?
- ✓ What else do I need to know about this word?

Using the example from “Crinkleroot’s Guide to Knowing Animal Habitats,” students read about a variety of animals and the habitats in which they live. Stopping to determine what *migrating* means is important to understanding why geese can be found in a cornfield.

Students may ask what they already know about this word. If they live in certain areas of the country, they may see a relationship between *migrating* and migrant workers—people who travel to different places during different seasons because work is available. Students can apply this knowledge to figure out that birds that migrate travel during different seasons. Or, students may ask themselves whether the author provides any clues or insight into what the word means. In the text, the author lets the reader know that geese migrate and that they can be seen in cornfields in the late fall. Given what they know about *migrating* from connections to what they already know and information in the text, students should see whether they can define the word.

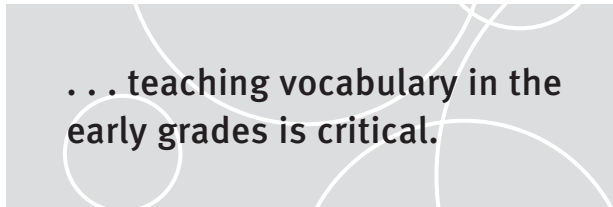
Using a series of questions leads students to a deeper understanding of the word. Asking the question “What does *migrating* mean?” often leads to simplified definitions; for example, “birds fly to different places.” But asking questions such as “How does this word help me develop a better understanding of the characteristics of these birds?” “Why do birds migrate?” and “How does understanding this word help me connect with other information I know about birds?” leads students to a deeper understanding of the word.

What Does Vocabulary Instruction Look Like in the Classroom?

Preparing to Read

Because the major purpose of vocabulary instruction in a reading program is to help students become fluent, knowledgeable readers, providing key vocabulary instruction before reading a selection helps students see the connection between the instruction and the application of that instruction.

As noted earlier, teaching vocabulary in the early grades is critical. This vocabulary instruction can and should be integrated into beginning reading instruction in the first and second grades. As students are learning how to blend words, they should also learn to build their understanding of words and inflectional endings that affect the meaning of words. Through practice with blending words, students can also learn antonyms and synonyms. Not only should students blend words, but they should also discuss the words they have read (blended), talk about their meanings, and use the words in sentences.



... teaching vocabulary in the early grades is critical.

The emphasis in the first part of a reading lesson should gradually shift across the grades from phonics to word knowledge—learning roots and affixes and building derived forms so students see the relationship among words with the same

root. In the upper grades, words discussed in the first part of a lesson should directly relate to words in the actual reading selection and should be organized to teach pronunciation, spelling, and meaning connections. Knowing the meaning of a root and affixes equals knowing the meaning of a derived form. For example, if a reader knows the meaning of *civil*, then the reader can use that knowledge to determine the meaning of *civilized* and *civilization*. If the reader knows the meaning of *nation*, he or she can use that knowledge to determine the meanings of *national*, *nationality*, and *nationalism*. As with blending in the lower grades, word knowledge should include discussion about the words and what they mean.

Reading

Before reading a selection, key vocabulary words should be pretaught using context, structural analysis, and apposition. Early in the year, students learn through direct explanation what these skills are and how to use them to determine the meanings of key vocabulary words. As the year progresses, students increasingly take responsibility for deciding when and how to use these skills as they think aloud to determine the meanings of the words. Pretaught words should be selected based upon saliency to developing understanding of the selection, frequency, and utility. Not all unfamiliar words should be pretaught. Some unfamiliar words should be dealt with during reading.

In addition to pretaught vocabulary words, students should have the opportunity before reading to browse the text for unfamiliar words and phrases. Often during browsing, students identify words

that may be problematic during reading. This provides a preview of words they will need to think about while reading—words they will need to stop and clarify as they read.

Clarifying is a strategy used to check understanding while reading. Students need to learn to monitor understanding as they read and to stop and clarify when something does not make sense. This could be at the word, sentence, or extended-text level. It could include pictures, charts, or graphs. Clarifying while reading provides a perfect context for addressing words that were not pretaught—words that may be examples of familiar concepts such as *killdeer*, which is a type of bird, or *mandolin*, which is a type of musical instrument. Having a detailed understanding of these words may not be critical for making sense of the text, but students can easily connect words such as these to a familiar concept during reading.

After reading, students should revisit vocabulary words. They may choose to keep a log of new words. In addition, students should always be encouraged to connect new words with familiar words—to write synonyms and antonyms when appropriate, to note related words, and to write examples. In other words, students personalize the learning of new words based upon what they already know. Students should feel free to add to this personal dictionary whenever they are reading.

Language Arts

Specific language arts instruction can help students develop vocabulary skills

and strategies to build new vocabulary and secure vocabulary through word relationships.

Vocabulary Skills and Strategies

Word Relationships

People effectively learn new words by relating them to words they already know. An understanding of different word relationships enables students to secure new vocabulary quickly and efficiently. Word relationships include the following:

- **Antonyms:** words with opposite or nearly opposite meanings (*hot/cold*)
- **Synonyms:** words with similar meanings (*cup, mug, glass*)
- **Multiple Meanings:** words that have more than one meaning (*run, dressing, bowl*)
- **Shades of Meaning:** words that express degrees of a concept or quality (*like, love, worship*)
- **Levels of Specificity:** words that describe at different levels of precision (*living thing, plant, flower, daffodil*)
- **Analogies:** pairs of words that have the same relationship (Ball *is to* baseball *as* puck *is to* hockey.)
- **Compound Words:** words comprised of two or more words (*daylight*)

People effectively learn new words by relating them to words they already know.

- **Homographs:** words that are spelled the same but have different meanings and come from different root words (*bear, count*)
- **Homophones:** words that sound the same but have different spellings and meanings (*mane/main, to/two/too*)
- **Base Word Families:** words that have the same base word (*care, careless, careful, uncaring*)
- **Prefix:** an affix attached before a base word that changes the meaning of the word (*misspell*)
- **Suffix:** an affix attached to the end of a base word that changes the meaning of the word (*careless*)
- **Concept Vocabulary:** words that help develop understanding of a concept (*space, sun, Earth, satellite, planet, asteroid*)
- **Classification and Categorization:** sorting words by related meanings (*colors, shapes, animals, foods*)

Contextual Word Lists

Teaching vocabulary in context is another way to secure understanding of unknown words. Grouping words by subject area—such as science, social studies, and math—or in categories—such as descriptive words, new words, and so on—enables students to connect word meanings and build vocabulary understanding.

- **Figurative Language:** Idioms, metaphors, similes, personification, puns, and novel meanings need to be taught specifically, especially for English-language learners.
- **Derivational Word Lists:** Presenting groups of words derived from particular languages or with specific

roots or affixes is an effective way to reinforce meanings and spellings of foreign words and word parts.

Teaching vocabulary in context is another way to secure understanding of unknown words.

Vocabulary Strategies for Unknown Words

Different strategies have been shown to be particularly effective for learning completely new words.

Key Word

This strategy involves providing or having students create a mnemonic clue for unknown vocabulary. For example, the word *mole* is defined in chemistry as a “gram molecule.” By relating *mole* to *molecule*, students have a key to the meaning of the word.

Definitions

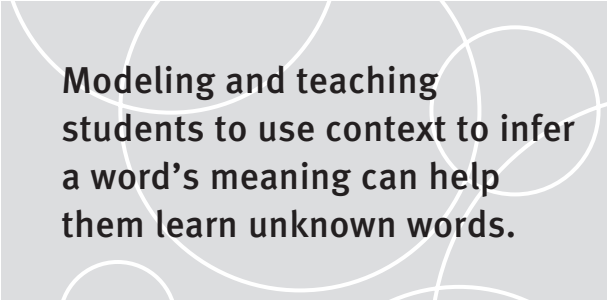
Copying a definition from a dictionary is somewhat effective in learning new vocabulary. Combining using the word in writing and speaking adds to the effectiveness of this strategy. Requiring students to explain a word or use it in a novel sentence helps ensure that the meaning is understood.

Context Clues

Students can learn any word from context, particularly with repeated exposure to the word in reading and listening. Without

specific instruction in using context clues, however, students often ignore unknown words. The following three types of context clues can be used:

- **Syntax** How a word is used in a sentence provides some clue to its meaning.
- **External Context Clues** Hints to a word's meaning may appear in the words, phrases, or sentences surrounding a word in text. Other known words in the text may be descriptive, provide a definition (apposition), be compared or contrasted, or be used synonymously in context. Modeling and teaching students to use context to infer a word's meaning can help them learn unknown words.
- **Word Structure** Examining the affixes and roots of a word may provide some clue to its meaning. Knowing the meaning of at least part of the word can provide a clue to its meaning. (For example, the word *unenforceable* can be broken down into meaningful word parts.)



Modeling and teaching students to use context to infer a word's meaning can help them learn unknown words.

Semantic Mapping

Having students create a semantic map of an unknown word after learning its definition helps them learn it. Have students write the new word and then list

in a map or web all the words they can think of that are related to the word.

Semantic Feature Analysis

A semantic feature analysis helps students compare and contrast similar types of words within a category to help learn unknown words. Have students chart, for example, the similarities and differences among types of sports, including new vocabulary such as *lacrosse* and *cricket*.

Building Word Knowledge and Vocabulary in *SRA Imagine It!*

SRA Imagine It! recognizes that vocabulary learning, like all learning, is multidimensional and must begin early and systematically. Students need to learn a repertoire of skills for dealing with unfamiliar words and how to use those skills in the context of reading a wide range of different texts. The support in *SRA Imagine It!* for vocabulary development is comprehensive and integrated throughout the program. Explicit vocabulary instruction occurs throughout every part of the three-part *SRA Imagine It!* lesson: Preparing to Read, Reading & Responding, and Language Arts.

- A Read Aloud selection appears at the beginning of every unit at every grade level. Work by Robbins and Ehri (1994) discusses the value of reading aloud to develop vocabulary with kindergarten children. Reading aloud introduces students to unit concepts

and fosters conceptual “hooks” upon which students can begin to think about vocabulary that is specific to the unit theme.

- The literature in *SRA Imagine It!* provides a natural vehicle for introducing and building new vocabulary. Selections have been carefully chosen not only for content but for the opportunity to experience and learn new words and concepts. The literature supports the learning of new words and the broadening of understanding of known words as well as fostering an appreciation of language.
- Investigations and exploration form an integral part of *SRA Imagine It!* as students explore new ideas, develop conjectures, and investigate potential answers to their questions. Additional reading, discussing, thinking, and sharing of ideas make this happen. Focused reading on an idea or concept ensures that students will have multiple experiences with already learned vocabulary, deepen their understanding of existing words, and learn new ones. Ongoing

opportunities to use new words in discussions and presentations help solidify the understanding of words.

According to Nagy (1988), “the single most important thing a teacher can do to promote vocabulary is to increase students’ volume of reading.” Creating opportunities for “reading, reading, and more reading” is critical. At the core of *SRA Imagine It!* is the belief that the reading students experience through *Big Books* and *Student Readers* is only the beginning. These reading experiences act as catalysts for asking questions, generating wonderings, and creating a desire to learn more, and more, and more.

Conclusion

Vocabulary instruction should be a cognitive activity during which students think about words, explore their meanings, and deepen their understanding. Studying words should enrich students and support their success as learners. This learning of words must begin early to overcome the enduring effects that limited word knowledge can have on the academic and personal success of our students.

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