

CHAPTER 5

INSTRUCTION FOR VOCABULARY DEVELOPMENT

Prior to the beginning of the school year, the teachers of ELLs at the fifth and sixth grades in Beachfront Elementary School gathered together to discuss vocabulary instruction. Ms. Tran stated that the content-area curriculum for her fifth graders was not modified for addressing the needs of her students. Mr. Johnston shared that his sixth graders had problems with academic vocabulary, and the textbooks did not have many activities to focus on vocabulary. As one sixth-grade teacher put it, “ELLs are constantly in the position of catching up in language and literacy development with their English-speaking-only peers, and how can they do well with mastering academic vocabulary?” Mrs. Goodman shared her interest in building her teaching on her sixth graders’ literacy in L1.

The preceding scenario reflects teachers’ view on the importance of academic vocabulary in ELLs’ literacy development and their efforts and challenges in teaching academic vocabulary to ELLs. If you were one of the teachers at this school, you might ask these questions:

1. How do ELLs develop their vocabulary knowledge?
2. How can I conduct classroom-based assessment to evaluate ELLs’ vocabulary knowledge?
3. What instructional strategies and materials can I use in teaching academic vocabulary?
4. How can I integrate vocabulary instruction into other components of literacy instruction?
5. How can I build my vocabulary instruction on students’ literacy in L1?

These questions are just a few examples of teachers’ concerns about how to best teach vocabulary to ELLs. In this chapter, I begin with an overview of ELLs’ vocabulary development, with a focus on academic vocabulary, highlighting areas

of strengths and difficulties for ELLs. Next, I discuss different types of classroom-based assessments for students' vocabulary development. The subsequent section centers around strategies and activities for vocabulary development. The following section is about engaging families in supporting their children's vocabulary development. I conclude this chapter with account of teaching ELLs vocabulary shared by Ms. Renee Gonzalez-Gomez, a reading specialist.

VOCABULARY DEVELOPMENT

Vocabulary development is an ongoing and complex process. Oral language development in the early years helps build children's receptive knowledge about words. After entering school, their vocabulary knowledge continues to expand (Anderson & Nagy, 1992; Graves, 1987). Evidently, ELLs are at a disadvantage to begin with. Often, they are pressured to develop vocabulary knowledge that should have been developed before schooling and to expand their vocabulary knowledge while expanding their knowledge about English. Goldenberg, Rezaei, and Fletcher (2005) remind us that even for ELLs equipped with a good body of vocabulary knowledge in L1, their reading performance still lags behind their native English-speaking peers.

The process of vocabulary development is ongoing because there are so many words to learn. Further, there are so many dimensions of a word that a student needs to master. Nagy and Scott (2000) identify five components of vocabulary knowledge: incrementality, polysemy, multidimensionality, interrelatedness, and heterogeneity. *Incrementality* of vocabulary knowledge means that children's mastery of each word results from multiple exposure to it over a long period of time. The *polysemy* aspect requires a learner to know different shades of meanings (e.g., different meanings of the word *run*). Upon mastery of *multidimensionality*, a learner knows how to say the word, how to use the word within an appropriate context, what other words are related to it (e.g., the words *jog*, *dash*, *dart*, and *scurry* are related to the word *run*), and what are the morphemic features of the word (e.g., the suffix *-er* in *runner* and the prefix *re-* in *rerun*). When a learner understands the *interrelatedness* of vocabulary, he or she has a good knowledge of how one word is related to another (e.g., *cumulus*, *cirrus*, and *stratus* are related to the word *cloud*). When a learner has developed the *heterogeneity* aspect of vocabulary knowledge, he or she has a large amount of vocabulary from which to choose words to use when needed. For example, a student with academic vocabulary would talk and write like a content authority by using a specific set of subject-area words (e.g., words used by a biologist).

The complexity of vocabulary development is further evident in its close relationship with speaking, listening, reading, and writing. A strong relationship between reading and vocabulary knowledge is well researched (e.g., Blachowicz & Fisher, 2006, 2007; Davis, 1944, 1972) This relationship is no exception to ELLs' vocabulary development. If an ELL has limited sight vocabulary, the student will

experience a hard time learning new words by using contextual clues provided by sight words that the student may not know. For ELLs, oral proficiency also affects vocabulary development. For example, an ability to understand what is being said provides an ELL an opportunity to learn about new words or new meanings of known words and to try to communicate with the speaker using these words. Furthermore, the more an ELL communicates with others in oral and written language for a meaningful purpose, the more vocabulary the student gains through incidental learning, and the more chances the student has to be successful in literacy development (Carlo, August, & Snow, 2005; Folse, 2004; Nation, 2001).

Academic Vocabulary

Academic vocabulary are *discipline-related words* that are often abstract and concept-related. For example, when students are learning the two words *Venus* and *Mercury*, it is not enough to know just their spelling and pronunciation and understand that they are the labels for two planets in the solar system. More important, students must understand the characteristics of Venus and Mercury and their relationship to other planets in the solar system. *Words used across disciplines* are shared by different fields. The verbs *solve* and *analyze*, for instance, appear in texts on math, science, and social studies. The noun *system* can be found in *the solar system*, *the digestive system*, *the ecosystem*, *the judicial system*, *the political system*, and *the school system*. Furthermore, some academic words have their equivalents in everyday English. For example, everyday English words for the academic words *discuss* and *convention* are *talk about* and *meeting*, respectively. Some common words possess a meaning specific to disciplines. Consider the words *table* and *plane* in the following two sentences: *This table lists the changes in temperature across two seasons. Geometric shapes with plane surfaces include circle, square, triangle, rectangle, trapezoid, rhombus, and parallelogram.*

Academic vocabulary has *morphological and phonological features* different from those for most words in everyday English. Academic vocabulary are usually derivational words comprised of a prefix and/or a suffix (e.g., *evolution*, *metamorphosis*). Unlike everyday words, which often have an Anglo-Saxon and/or a Latin base, academic vocabulary is often composed of Greek roots and is thus relatively unfamiliar to students. For example, words derived from the Greek root *cracy* (“government”) include *aristocracy*, *autocracy*, *bureaucracy*, *democracy*, and *plutocracy*. The phonological feature of academic words includes stress, sound patterns, and intonation (Scarcella, 2003). Specifically, derivational words sharing a common meaning may exhibit different patterns in stress, sound, and intonation. Consider the words *evolve* and *evolution*. When *-tion* is added to the base word *evolve*, the short-*o* sound in *evolve* becomes a schwa sound in *evolution*, and the stress is shifted from /vo/ in *evolve* to /lu/ in *evolution*.

Learning academic vocabulary includes understanding its own grammatical features. When students learn that the part of speech of the word *bacterium* is a noun, they also need to remember that the word is singular not plural (Scarcella, 2003). Learning grammatical features of an academic word further means to know

all derivational forms of a base word or a root and their respective parts of speech and usage. For example, these words share the same root, *pend/pens* (meaning “hang”), but have different parts of speech: *append* (v.), *appendix* (n.), *pendant* (n.), *impending* (adj.), *pending* (adj.), *suspend* (v.), and *suspense* (n.). Even for the words with the same part of speech (e.g., *append* and *suspend*), their usage can be different. The word *append* is often directly followed by an object (e.g., *append a thank-you card*) while the word *suspend*, used with an object or not, is often followed by the preposition *from* (e.g., *suspend the lamp from the ceiling*).

Modal auxiliaries—*can*, *could*, *have to*, *may*, *might*, *must*, *will*, *would*, *shall*, and *should*—are very common in academic English and play an important role in conveying complex meanings of sentences (Scarcella, 2003; Zwiers, 2008). The strong tone in the sentence *The scientists will invent a space shuttle that can transport humans to Mars* would be weakened if the modal *would* is used instead. Another feature of modal auxiliaries is its extensive use in conditional (indicative and subjunctive) clauses. Consider the indicative condition in the sentence *If you provoke an animal, even a most gentle one, like sheep, it would attack you as a way to protect itself*. The sentence means that attacking is more likely to happen. In the sentence with a subjective condition, *If the American Revolution had not happened, we still would have been ruled by the British*, our being ruled by the British did not actually happen. Students not only need to understand the tone and meaning of sentences conveyed with modals in academic reading, but also develop an ability to use the modals correctly in academic writing.

Areas of Strengths and Difficulties

A salient strength in vocabulary development is ELLs’ prior knowledge on some general and specific concepts acquired in L1 (e.g., a table has a flat surface and three or four legs). This knowledge varies greatly across ages, schooling, and life experiences. For example, older ELLs generally are equipped with more vocabulary knowledge. This assumption, however, can be misleading. An ELL from an isolated village would not know as much about establishments in a city (e.g., shops) as an ELL of the same age living in a city. Another strength is the transfer of students’ knowledge about morphological and grammatical characteristics of words acquired in L1 (Nagy, McClure, & Mir, 1997). For example, derivational words exist in languages like Spanish, French, and German. Even for ELLs whose L1 shares limited characteristics with English, some level of L1 vocabulary knowledge can facilitate learning English vocabulary. For example, many words have multiple meanings, and all words belong to at least one part of speech. An understanding of collocation in L1 words would benefit ELLs in learning about word collocation in English.

The areas of difficulties for vocabulary developments come from three sources. First, students who may not have prior knowledge about the concepts represented in English (e.g., the Internet) are learning the words and concepts simultaneously. Second, students whose L1 does not share much commonality with English may have limited L1 resources to tap into (e.g., concepts of affixes and derivational

words for speakers of Chinese or Japanese). Third, students whose L1 share cognates with English would experience another type of difficulty. For example, false cognates (see Table 2.3) may confuse Spanish-speaking children (García, 1991), and they have to unlearn a possible association between a false cognate and an English word and learn the English word as a brand new word. In identifying students' sources of vocabulary difficulties, Blachowicz and Fisher (2006) remind us to make sure that the difficulties are truly related to vocabulary (meaning of words) and not to decoding problems. This point is extremely important to teachers of ELLs, as ELLs are developing their decoding and vocabulary skills simultaneously. It is possible that an inability to decode a word may lead you to believe that a student does not understand it. There is also a high possibility that a student understands the concept acquired in L1 that a word represents, but that the student has a hard time pronouncing the word (see Table 5.1 for the characteristics of ELLs' vocabulary knowledge).

Goals of Instruction

One goal of vocabulary instruction is to provide direct, systematic vocabulary instruction and allow students to be exposed to a wide range of vocabulary (everyday and academic) through reading and listening and to apply the learned vocabulary through speaking and writing (Lesaux & Siegel, 2003; Peregoy & Boyle, 2009). This goal is important to ELLs because they are pressured to develop all

TABLE 5.1. Proficiency Levels and Characteristics of Vocabulary Development

Level	Characteristics
Beginning	<ul style="list-style-type: none"> • Understanding some common words, simple phrases, or short sentences predominantly in oral communication and some in written communication • Using with many errors some common words, simple phrases, or short sentences predominantly in oral communication and some in written communication • Learning words used in daily classroom routine • Having limited understanding of academic vocabulary
Intermediate	<ul style="list-style-type: none"> • Understanding more words with simple or multiple meanings, simple and complex phrases, or longer sentences mostly in oral communication and more in written communication • Using mostly appropriately words with or without multiple meanings, simple and complex phrases, or longer sentences mostly in oral communication and more in written communication • Mastering most words used in daily classroom routine • Expanding sight vocabulary • Having some understanding of academic vocabulary
Advanced	<ul style="list-style-type: none"> • Understanding and using appropriately most vocabulary used in oral and written communication • Expanding knowledge of commonly known words • Expanding understanding and use of academic vocabulary

four areas of language and literacy (listening, speaking, reading, and writing) simultaneously within a short period of time. Limited vocabulary and possible limited background knowledge may make vocabulary learning challenging. But when all areas of literacy are integrated in teaching, students are able to make a better sense of the words, which helps lessen the linguistic and cognitive load. Further, this approach enables students to experience the utility of learned vocabulary across four areas.

Related to this goal is providing a language- and word-rich environment for students who are “filled with curiosity and excitement about new words and opportunities to have fun with words” (Blachowicz & Fisher, 2006; Blachowicz, Fisher, Ogle, & Watts-Taffe, 2006, p. 527; Cunningham, 2005; Nation, 2001). This is one of the characteristics of strong vocabulary instruction that applies to vocabulary instruction for ELLs. This characteristic seems to be more important for ELLs, and specially for those who are not strong in general vocabulary and who are now expected to learn academic vocabulary. Teachers cultivate a language- and word-rich environment by providing many meaningful and authentic vocabulary activities (e.g., identifying key words from a newspaper article on a community event). Similarly, students contribute to the development of such an environment by participating actively in vocabulary activities.

A final goal, more important to ELLs, is to foster students’ love for words (Blachowicz et al., 2006; Graves & Watts-Taffe, 2002). When students take an interest in words, they pay more attention to words in oral and written language. Further, motivation is a drive for ELLs to overcome difficulties in learning. Teachers can foster students’ love for words through accomplishing the first two goals.

ASSESSING VOCABULARY DEVELOPMENT

Explicit Assessment

Free Recall

Free recall (Holmes & Roser, 1987) is a fast way to assess students’ receptive knowledge about target words. You choose content-area words related to a unit of study (e.g., weather) or everyday words (e.g., for a daily classroom routine). You simply ask the student, “Tell me about the word _____,” and write down student’s responses. For ELLs who are developing their oral language, you model first by writing down a word with a picture and then draw pictures related to the word to illustrate what you know about the word. Then you have the student do the same. Or you have the student act out a word if possible (e.g., verbs and adjectives). If there is a bilingual student in your classroom or in your school, or a bilingual adult who can assist you with assessment, the student can tell you about the word in L1. In that case, you need to be aware that the meaning of a word, if it exists in L1, may vary due to cultural differences. In analyzing students’ responses, you look for the richness in meaning (i.e., multiple layer of meanings) and for confusion in meaning (e.g., *home* and *house*).

Using a Word in a Sentence

An indirect way to assess expressive word knowledge is to have the student write at least one sentence using a target word, if the student has developed some literacy skills in English. If the student is lacking in literacy skills, he or she can tell you at least one sentence using a target word. Of course, sentences in L1 are acceptable if a bilingual child or adult is available to translate the sentences. In analyzing the sentences, you should look for richness in meaning from multiple sentences, word collocation, and meaning confusion.

Word Sorting

Word sorting, an instructional strategy for teaching phonics, spelling, and sight vocabulary, can be used as an assessment tool as well. Word sorting can be closed or open-ended (Bear et al., 2007). In a closed sort, you provide the student with a criterion, such as sorting words by meaning (e.g., derivational words) or by content (e.g., words about community). In an open-ended sort, the student groups the words in his or her own way. At the end of the sorting, you ask the student to explain each group. In analyzing how the student has sorted the words, you assess whether the student has a good understanding about a relationship between the words in a same group.

Embedded Assessment

Due to the close relationship between vocabulary and speaking and writing, data from embedded assessment of oral language and writing is a valuable source of information about students' strengths and needs in vocabulary development. You can observe how students use vocabulary during oral communication for daily routines (e.g., during recess time) and during literacy activities (e.g., a book discussion). Writing samples can shed light on students' expressive ability with words. The following questions may guide you to focus on what to look for in your observations: Does the student use newly learned words? Does the student use appropriate words in a correct way? Does the student overuse a few words in communication (e.g., *you know*)? Does the student use a wide range of words to express a similar idea?

STRATEGIES AND ACTIVITIES FOR PROMOTING VOCABULARY DEVELOPMENT

While there is limited research on vocabulary instruction for ELLs (Blachowicz et al., 2006; Dressler & Kamil, 2006), literature has indicated that sound vocabulary instruction for non-ELLs can be adapted for enhanced and modified instruction for ELLs (August & Shanahan, 2006; Fitzgerald, 1995; Slavin & Cheung, 2003). In Carlo et al.'s (2004) study, when vocabulary instruction for fifth-grade Spanish-

speaking ELLs and English-only students focused on the elements of word knowledge, form, meaning, and use (Nation, 2001), ELLs improved in word knowledge, the depth of word knowledge, and reading comprehension. Teachers can provide ELLs with direct, scaffolded instruction on academic vocabulary for students to master various aspects of word knowledge (e.g., Carlo et al., 2004; Scarcella, 2003). The strategies and activities in this section (see Table 5.2) reflect the guidelines by Blachowicz et al. (2006):

- It takes place in a language- and word-rich environment that fosters what has been referred to as “word consciousness” (see Blachowicz & Fisher, 2006; Graves, 2006).
- It includes intentional teaching of selected words, providing multiple types of information about each new word as well as opportunities for repeated exposure, use, and practice.
- It includes teaching generative elements of words and word-learning strategies in ways that give students the ability to learn new words independently. (p. 527)

Providing a Language- and Word-Rich Environment

Blachowicz et al. (2006) identify one of the characteristics of strong vocabulary instruction as a language- and word-rich environment, which includes a display of various genres of texts, teacher modeling of the use of new and complex words, and teacher reinforcement of key words in discussion and in read-aloud. The following example illustrates how a fifth-grade teacher explained the meaning of the concept *chemical reaction*, modeled the use of the phrase, and invited the students to use the phrase.

“Today, we are going to talk about chemical reaction. Actually, part of this concept is not new at all. You have already had some experience with the concept *reaction*. For example, what is your reaction when you hear that we are going to dissect a pig heart? Your reaction can be excitement about this lab activity and curiosity about the similarities and differences between a pig heart and a human heart. Other words having a similar meaning with the word *reaction* are *response* and *effect*. So your reaction to dissecting a pig heart is an emotional response. Who can give me more examples of *reaction*? [Students give out examples (reaction to passing the tests, to going on a vacation, to reading an interesting book, and to watching a new movie).] Good. You have a good understanding of the concept *reaction*. Now let’s talk about chemical reaction, the concept we are learning today. Chemical reaction is chemical change in one type of substance as a result of its reaction to something. That is, one type of substance changes into a new type of substance. [Writes on the board the following.]

chemical reaction = chemical change
chemically
Substance —————> New Substance

TABLE 5.2. Instructional Foci and Strategies and Activities for Vocabulary Development

Level	Instructional Foci	Strategies and Activities
Beginning	<ul style="list-style-type: none"> • Providing a language- and word-rich environment • Reading to/with students a wide range of books and other texts of different genres and interests • Providing opportunities for speaking and writing • Developing basic sight vocabulary • Introducing academic vocabulary on concepts familiar to students (e.g., body parts) • Encouraging students to make connections to prior knowledge of a concept 	<ul style="list-style-type: none"> • Providing a language- and word-rich environment • Selecting words for instruction • Providing comprehensible input • Teaching word-learning strategies (using context clues) • Focusing on concepts (list-group-label) • Teaching dictionary use • Focusing on students' interests and independent learning (collecting words from texts of interests, personal vocabulary journal)
Intermediate	<ul style="list-style-type: none"> • Providing a language- and word-rich environment • Providing opportunities for listening, speaking, reading, and writing of narrative and expository texts • Expanding sight vocabulary • Mastering words used in daily classroom routine • Developing polysemy, multidimensionality, interrelatedness, and heterogeneity aspects of word knowledge • Mastering academic vocabulary of more complex concepts familiar to students (e.g., precipitation) • Encouraging students to make word/concept connections in English and L1 (if literate in L1) and prior knowledge and concept connections 	<ul style="list-style-type: none"> • Providing a language- and word-rich environment • Selecting words for instruction • Providing comprehensible input • Teaching word-learning strategies (conducting self-assessment, using associations, using context clues) • Focusing on concepts (list-group-label, using analogies, concept circle) • Focusing on procedural vocabulary • Paraphrasing • Teaching definition • Teaching dictionary use • Focusing on students' interests and independent learning (collecting words from texts of interests, personal vocabulary journal)
Advanced	<ul style="list-style-type: none"> • Providing a language- and word-rich environment • Providing opportunities for listening, speaking, reading, and writing of narrative and expository texts • Expanding polysemy, multidimensionality, interrelatedness, and heterogeneity aspects of word knowledge • Mastering academic vocabulary on more complex concepts familiar or unfamiliar to students (e.g., American Civil War) • Encouraging students to make a connection between English and L1 cognates (if literate in L1) 	<ul style="list-style-type: none"> • Providing a language- and word-rich environment • Selecting words for instruction • Providing comprehensible input • Teaching word-learning strategies (conducting self-assessment, using associations, using context clues, using morphemic analysis, using morphemic mapping) • Focusing on concepts (list-group-label, using analogies, concept circle and concept of a definition map) • Focusing on procedural vocabulary • Paraphrasing • Teaching definition • Teaching dictionary use • Focusing on students' interests and independent learning (issue log, collecting words from texts of interests, personal vocabulary journal) • Using cognates • Translating words on a word wall • Making a bilingual dictionary

“Now I am going to give you some examples of chemical reaction. When your food is mixed with the acid in your stomach, your food’s reaction to the acid is to change into something different. That is a chemical reaction. Whatever food you put in your mouth earlier has broken down into something like mushy soup. That is a new substance ready to be further processed by your small intestines. There are no longer such things as tomatoes and McDonald’s burgers. A chain of chemical reactions occurred to the food we ate. I can use the concept *chemical reaction* like this in a sentence: *When food is mixed with acid in the stomach, a chemical reaction occurs.* Respiration and photosynthesis (writing down both words on the board) are another two examples of chemical reactions. I’d like to hear from you some examples of chemical reactions.”

In a language- and word-rich environment, students play an active role by applying words they’ve just learned. In a fifth-grade class, Ms. Cohen required her students to talk like social scientists by using words specific to a discipline. For example, in explaining how a bill becomes a law, she wanted her students to use these words: *bill, law, house/houses, committee, vote, veto, President, sign, unsigned, pass, and majority.* Here is one example of how a student explained the process.

“First, a bill is introduced into one of the houses, where it is voted on. If that passes, it is sent to the house’s committee. If it passes, then it is voted on in the same house. After that, if it passes, it goes to the opposite house where it is discussed and voted on. If that passes, the bill is sent to a conference where the differences are worked out. It is then sent to the house for a final vote and if that passes, it is sent to the President. If he signs the bill or leaves it unsigned or does not veto it for 10 days, then the bill becomes a law. If he vetoes it, it is sent to the houses, and if there is a two-thirds majority in both houses, the bill still becomes a law.”

Selecting Words for Instruction

A first factor to consider in selecting words for instruction is the importance of the words to ELLs. For beginners and newcomers, words related to classroom routines are most relevant (e.g., *raise your hands; open your book to page ____*). (See Kress’s [2008] *The ESL/ELL Teacher’s Book of Lists* for examples of expressions of classroom routines.) Understanding these words makes ELLs’ daily experience in the classroom a little bit less frustrating, a little more pleasant and successful. For intermediate and advanced learners, you need to strike a balance between their needs in vocabulary knowledge and the curricular standards. In addition to words listed in your curricular guides, you can look for words in the glossaries of the textbooks and other materials, select italicized or bolded words in texts, and identify the words in sidebar texts explaining concepts or in captions describing visual representations.

Another factor to consider is students’ prior knowledge of the concept learned in L1. For concepts familiar to students, you can focus instruction on reviewing the concepts and providing English equivalents. Besides the content-specific

words, you can select to teach words used across content areas (e.g., *analyze/analysis*, *argue/argument*, *categorize/category*, *clarify/clarification*, *classify/classification*, *document/documentation*). Mastering these words early on supports students in navigating texts across different content areas and producing written output with academic vocabulary.

A third factor to consider is whether a particular expression representing a concept may be confusing, misleading, or different in L1 and in English. For example, while students literate in L1 may have mastered the concept of fractions, the way the concept is expressed differs across English and other Asian languages. The fraction three-fourths ($\frac{3}{4}$), is said as 四分之三 in Chinese (四 means 4, 分 means *parts*, 之 means *of*, and 三 means 3), and 4分の3 in Japanese (分 means *parts*, の means *of*). In cases like this, just teaching the word *fraction* is not enough. You need to direct students' attention to the difference in the expression of the same concept in L1 and English. If possible, have a bilingual student explain the difference to the class.

A last factor to consider is who will select words for instruction. Traditionally, teachers are the ones who complete this task. Literature about English-only students and vocabulary instruction in general has indicated that having students select words for studying is an effective and motivating tool (e.g., Jimenez, García, & Pearson, 1996). The strategies of vocabulary self-collection (Haggard, 1986) and reciprocal teaching are primarily composed of having students select the words and talk about the words. Having students select words to study is doable especially for those who are literate in L1 and whose L1 shares the same roots (e.g., Spanish, French). If students are invited to select the words, you can present a visual display of the words in relation to the concept and a short text explaining the concept. The display facilitates students in identifying the known and new words and in learning about the concept the words represent. You can also refer to online visual dictionaries to locate pictures and labels for a concept. My favorite sites include Visual Dictionary (www.infovisual.info/04/pano_en.html), Merriam-Webster Visual Dictionary Online (visual.merriam-webster.com), and NASA Picture Dictionary (www.nasa.gov/audience/forstudents/k-4/dictionary/index.html).

Providing Comprehensible Input

It is important for students to receive comprehensible input during the process of vocabulary development (Freeman & Freeman, 2004). One way for students to receive comprehensible input in lessons on academic vocabulary is for you to control other elements of academic language. That is, the grammar and text structures cannot be too hard, and the task students are asked to perform should be familiar to them. If other elements of the academic language are not controlled, students will be like a juggler who has to pay attention to different objects (i.e., figuring out the grammar and text structures while learning new words).

For example, in teaching vocabulary related to the human body, you may supplement the science curriculum with children's books written at a student's proficiency level, such as *DK Eye Wonder Human Body* (Bingham, 2003). Terminol-

ogy words in this book are introduced in very simple English. The subsection *What Are Germs* states, “Germs fall into two main groups: bacteria and viruses. Your body is good at keeping them out, but they are clever at finding ways in” (Bingham, 2003, p. 24). This two-sentence paragraph, with a simple sentence structure and everyday vocabulary, introduces three key words—*germs*, *bacteria*, and *viruses*—and the hierarchical relationship among them: the word *germs* is an overarching category for the words *bacteria* and *viruses*. In other words, the word *germs* is a hyponym for the words *bacteria* and *viruses*, or *bacteria* and *viruses* are subordinating words for the word *germs*. After introducing these three words, you can have students read the other two paragraphs written in a similar fashion explaining in detail what bacteria and viruses are. Later, you can talk about the form of each word. The word *bacteria* for example, is often used in its plural form. I strongly encourage you to make books like *DK Eye Wonder Human Body* available in your classroom library.

A second way to provide comprehensible input is glossing for unfamiliar words to facilitate comprehension. Some unfamiliar content words are crucial to comprehension of the content. Consider these two sentences about the flying ability of dragonflies: “They can also hover—useful while they seek out prey with their sharp eyes—and can dart in different directions. They do all this in spite of having a primitive wing design that has not changed for millions of years” (Dalby, 2003, p. 29). Four words, *hover*, *sharp*, *dart*, and *primitive*, may be unfamiliar to some students. Although only the word *primitive* is more content related, the other three words can cause difficulty as well. The words *hover* and *dart* are not as common as their respective synonyms, *fly* and *dash/rush*, and the word *sharp* has a meaning different from the one commonly used (e.g., *a sharp knife*).

Nation (2001) describes glossing as a way to provide a brief definition or a synonym in L1 or English for an unfamiliar word. The advantages of glossing include (1) allowing students to read an original text, (2) having students learn about the accurate meaning for an unfamiliar word as used in the text being read, (3) making the reading process flow smoothly without an interruption to consult a dictionary for an unfamiliar word, and (4) encouraging students to pay attention to the glossed words (Nation, 2001). Glossing can be done in two ways. One way is to attach to the end of a text a glossary of unknown words marked in the text. This is a relatively easy method, but students may choose not to consult the glossary. The other way is to make available a brief definition or a synonym in the text where an unknown word appears. This way is useful when a chosen text is from outside the curriculum and may contain some words not yet covered by the curriculum. In this case, you type up a brief definition or a synonym for each unknown word, print it out, and paste it next to the line where the word appears in a photocopy of a text passed out to your students (see Figure 5.1). You can also just write a brief definition or a synonym next to the line.

A third way to enhance comprehensible input during instruction of academic vocabulary is to provide a sentence frame for each content word students are asked to use. Mrs. Sawyer-Perkins, a fourth-grade teacher, required her students to use each key word in a sentence after she had explained and discussed it. To facilitate

Something like oil to make a surface smooth	People have hunted whales for their meat, oil, and bones. Whale oil, for example, was used as *lubricants, and in foods, soap, and candles. The number of whales have been significantly reduced due to commercial whalers' *whole-sale *slaughter.
Large scale, large quantities killing	

FIGURE 5.1. An example of glossing.

the success of this activity, she always created and wrote down on chart paper a sentence frame for each word (see Figure 5.2 for sentence frames for words related to medicine). For the word *suture* Mrs. Sawyer-Perkins included its verb and noun forms. The sentence frames invited students to apply their knowledge of sentence structures, along with their vocabulary knowledge. For example, for the sentence frame *During the fatal accident . . .*, a complete sentence is needed. To complete another sentence, *The doctor used sutures to . . .*, an infinitive verb is acceptable.

Teaching Word-Learning Strategies

While vocabulary instruction plays a crucial role in students' mastery of academic vocabulary, independent learning (e.g., incidental learning and extensive reading) is important to the growth of vocabulary knowledge. Given that, students must master a set of word learning strategies that will assist them to figure out unknown words in reading and even during standardized testing. In teaching strategies, you should explain the strategy with some examples, model the steps, provide guided

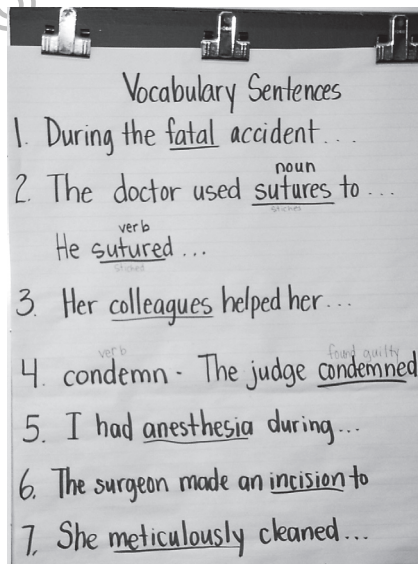


FIGURE 5.2. Sentence frames for vocabulary.

practice, assess and provide feedback, reteach if needed, provide independent practice, and conduct final assessment.

Conducting Self-Assessment

Becoming aware of one's own word knowledge is an important word learning strategy, as it is the first step in setting a goal for oneself for expanding vocabulary. Blachowicz and Fisher (2006) suggest using a Knowledge Rating Chart where students indicate their level of knowledge about a given set of words. Their chart includes these three levels: "Know Well," "Seen/Heard It," and "Don't Know" (p. 97) or "Can Define/Use," "Heard It," and "Don't Know" (p. 133). Figure 5.3 is an example of a modified chart that a Chinese-speaking fourth-grade ELL used to self-assess her knowledge of a list of words about eyes (see Appendix J for a reproducible version). This chart helps the student become conscious of her knowledge about the words.

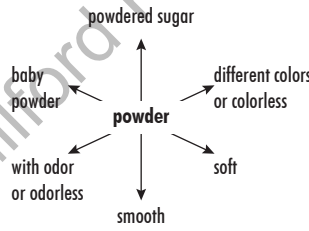
Using Associations

Associations help activate students' prior knowledge about a word/concept and associate such knowledge to the word/concept under study. When students make associations about a word, they expand and deepen their knowledge about this word by learning more about the meaning of the word and its relationship to other related words. Nation (2001) lists eight different ways to make associations. In Table 5.3, I explain and give an example for each type of association.

Words	I can pronounce the word	I can explain the word	I know how to use this word	I know other forms of this word	I know this word in my language
eyebrow	✓	✓	✓		眼皮
eyelash	✓	✓	✓	eyelashes	睫毛
iris	✓				
lower eyelid	✓	✓	✓		下眼皮
pupil	✓	✓		pupils	瞳孔
sclera					
upper eyelid	✓	✓	✓		上眼皮

FIGURE 5.3. Self-assessment of words.

TABLE 5.3. Associations

Association	Explanation	Example
Finding substitutes	Using another word to replace a target word	<i>Adjust</i> for <i>adapt</i> in <i>The thick fur and fat in a polar bear is an example of how an animal adapts [adjusts] to survive its environment.</i>
Explaining connections	Explaining the connections in a group of related words	The concept <i>water cycle</i> is the connection for the following words: <i>ocean, river, evaporation, condensation, precipitation, clouds, snow, pressure, wind.</i>
Making word maps	Making a semantic map of a target word	
Classifying words	Using a criterion to classify a group of words (Dunbar, 1992)	Classify the following measuring devices for their function: <i>analog watch, bathroom scale, digital watch, electronic scale, kitchen scale, kitchen timer, room thermostat, spring balance, stopwatch, sundial, and thermometer</i>
Finding opposites	Finding an antonym for a target word	<i>Acid</i> is an antonym for <i>base</i> .
Suggesting causes or effects	Finding a cause and/or an effect for a target word/phrase (Sokmen, 1992)	Global warming <i>cause:</i> industrial pollution, car pollution, decrease in areas for forest <i>effect:</i> unhealthy air, rising sea level, extreme weather, destroyed habitats for animals
Suggesting associations	<ul style="list-style-type: none"> Group 1: finding associated words for a target word, then scrambling the associations, and giving the words to Group 2 Group 2: finding associated words for the target word Groups 1 and 2: comparing and discussing the classification 	Associations for <i>food chain</i> Group 1: <i>sun, water, soil, energy</i> Group 2: <i>omnivores, herbivores, carnivores</i> Groups 1 and 2: <i>decomposers, plants, animals</i>

(continued)

TABLE 5.3. (continued)

Association	Explanation	Example
Finding examples	<p>Giving students a list of categories (e.g., sports, human digestive system, video games)</p> <p>Having each student choose one category or assigning one category to each student</p> <p>Having the student (the first student) write down on a piece of paper known words related to the category</p> <p>After a time limit set by the teacher, having the first student pass the paper to the next student (the second student) who will write down known words that are not on the paper</p> <p>Having the second student pass the paper on to the third student</p> <p>Repeating the same step with the rest of the class until the first student gets back his or her paper where he or she has started a list of words related to the category.</p> <p>Each list becomes part of a class dictionary (Woodward, 1985).</p>	<p>Category: Human Digestive System</p> <p>Student 1: <i>mouth, tongue, stomach, liver</i></p> <p>Student 2: <i>teeth, colon</i></p> <p>Student 3: <i>esophagus</i></p> <p>Student 4: <i>gallbladder, pancreas, small intestines, large intestines</i></p> <p>Student 5: <i>spleen, rectum</i></p>

Using Context Clues

In Haastrup's (1985, 1987, 1989) work during which L2 learners did a think-aloud to show how they had processed unknown words, he found out three sources of knowledge from which the learners had drawn: (1) *interlingual cues* from L1, or knowledge of other languages; (2) *intralingual cues* from English; and (3) *contextual cues* (context clue) from the text or readers' general knowledge. Interlingual cues are particularly important for students whose L1 shares some commonalities with English (e.g., Spanish, French). Cognates study (see the section "Differentiated Instruction of ELLs Literate in L1" on pages) is an effective way to invite students to draw on their L1 resources in figuring out unknown words in English. Intralingual cues become visible when students have developed some morphological knowledge about English words, and about multisyllabic words in particular (see the following section, "Using Morphemic Analysis"). Context clues, useful to students, can be difficult for them, as they must have developed a good understanding of the text structure, grammar, and general world knowledge. Gunning (2008) lists eight context clues which also can be used for students to figure out academic

words. In Table 5.4, I supplement an example from an expository text for each type of context clue.

While teaching context clues, it is important to focus on one context clue at a time so that students do not feel overwhelmed. It is also important to introduce first the clue that is most common, useful, and easiest to learn. For example, the context clue of explicit explanation or definition seems to be the most logical one

TABLE 5.4. Context Clues and Examples

Context clue	Example
Explicit explanation or definition	The two <i>which</i> -clauses explain what <i>pack ice</i> and <i>fast ice</i> are. “There are two main types of sea ice—pack ice, which forms on the surface of the open sea, and fast ice which forms between the land and the pack ice” (MacQuitty, 1995, p. 11).
Appositives	The phrase <i>small fish living in shallow water</i> is used as an appositive to explain the unknown word <i>blennies</i> . “Blennies, small fish living in shallow water, often rest on the bottom and hide in crannies” (MacQuitty, 1995, p. 18).
Synonyms	The phrase <i>sea fir</i> is a synonym for the unknown word <i>hydroid</i> . “The beautiful, flowerlike polyps of this hydroid, or sea fir, are used to capture food” (MacQuitty, 1995, p. 21).
Function/purpose indicators	The phrase <i>send a message to your brain</i> provides a clue to the unknown word <i>sensor</i> through the indication of its function. “When you touch something, tiny touch sensors in your skin send a message to your brain” (Bingham, 2003, p. 30).
Examples	The words <i>underwater mountains</i> , <i>plateaus</i> , <i>plains</i> , and <i>trenches</i> provide examples for the phrase <i>geological formations</i> . “There are underwater mountains, plateaus, plains, and trenches, making the ocean floor as complex as any geological formations on land” (MacQuitty, 1995, p. 8).
Comparison—contrast	The word <i>survive</i> is opposite to the unknown word <i>extinct</i> . “Some forms of life became extinct, but others still survive in the ocean today, more or less unchanged” (MacQuitty, 1995, p. 6).
Classifications	The words <i>towns</i> , <i>wards</i> , and <i>coteries</i> explain a classification of the social structure of prairie dogs. “Prairie dogs live in groups of thousands or even millions, called towns. Each town is divided into areas called wards, then into family groups called coteries” (Dalby, 2003, p. 74).
Experience	One’s experience of going to beach and collecting shells and the phrase <i>collect shells of already dead creatures</i> give a clue to the unknown word <i>beachcombing</i> . “It is better to go beachcombing and collect shells of already dead creatures” (MacQuitty, 1995, p. 62).

to begin with, as it is most commonly used in expository texts. In addition, you need to keep in mind students' prior knowledge of the sentence content where a clue appears. It is best to use sentences with familiar content. Otherwise, you may lose the focus of instruction, spending time explaining the meaning of the sentence rather than teaching context clues.

As students become more skillful at using context clues, they need to be exposed to words for which more than one context clue can be used. To enhance the effectiveness of teaching context clues, you can incorporate a think-aloud to facilitate students verbalizing how they use one particular context clue or a combination of several clues. The think-aloud benefits other students who may not have yet mastered using one particular context clue, and now are given an opportunity to learn from the thinking process of a peer. The think-aloud further provides you with assessment data on how your students learn to use context clues.

Using Morphemic Analysis

It would be helpful and effective to incorporate teaching morphemic analysis into instruction on spelling and grammatical features of words. Morphemic analysis is related to orthography because of the three layers of English spelling: the sound or alphabet layer, the pattern layer, and the meaning layer (see Chapter 2 for details). It makes sense to teach grammatical features of words along with instruction on morphemic analysis rather than just having students complete worksheets to learn about grammatical functions of words. This approach is important to ELLs who generally lack an exposure to English language and for whom academic vocabulary poses more of a challenge. For example, after having students identify a suffix (-tion) added to the base word *classify*, you can ask students to figure out the parts of speech for the base word *classify* and the derivational word *classification* by exploring the position of the words in the sentences. Table 5.5 illustrates a mini-lesson that links teaching morphemic analysis to spelling and grammatical features of words (*quantities*, *transported*, *tankers*, *pipelines*, and *seabed*). Figure 5.4 is a form for planning a lesson with an integration of morphemic analysis, and spelling and grammatical features of words (see Appendix K for a reproducible version).

Using Morphemic Mapping

Adapted from semantic mapping (Johnson & Pearson, 1984), morphemic mapping encourages students to expand their knowledge of a morpheme by listing words derived from the morpheme and by using each word in a sentence (see Figure 5.5). The visual display of related words based on the same root (or base word) provides a support for students to observe the relationship among the words. This activity can be used as a follow-up activity for a mini-lesson on morphemic analysis like the one illustrated in Table 5.5.

(text resumes on page 136)

TABLE 5.5. Teaching Morphemic Analysis, Spelling, and Grammatical Features

Teaching step	Instructional foci
<p>T: Another source of pollution in the ocean is an oil spill. This is the topic of the short paragraph we are about to read. I am giving you 3 minutes to read the paragraph on your own and mark any parts of the paragraph that you do not understand.</p>	<ul style="list-style-type: none"> • Having students preview the text • Having students self-monitor their comprehension
<p>T: Let's look at the first two sentences, "Oil is needed for industry and motor vehicles. Huge quantities are transported at sea in tankers, sent along pipelines, and brought up from the seabed." (MacQuitty, 1995, p. 62) What do these two sentences tell us? (<i>Teacher repeats this step of checking for comprehension for the rest of the text.</i>)</p>	<ul style="list-style-type: none"> • Checking students' comprehension
<p>T: In the second sentence, I have noted several words containing more than one morpheme. Who can tell me what a morpheme is? (<i>Students explain.</i>) T: Who can tell us the words with more than one morpheme? (<i>Students give the words quantities, transported, and tankers.</i>)</p>	<ul style="list-style-type: none"> • Having students activate their prior knowledge on the concept • Checking students' knowledge on the concept
<p>T: Let's look at the word <i>quantities</i>. (<i>Teacher writes down the word on the board.</i>) Can you give me other words with a similar meaning? (<i>Students give the words number and amount.</i>) (<i>Teacher writes down the words on the board.</i>)</p>	<ul style="list-style-type: none"> • Checking students' comprehension of each word
<p>T: Let's do some morphemic analysis with each word. Who can tell us what morphemic analysis is? (<i>Students respond</i>)</p>	<ul style="list-style-type: none"> • Checking students' knowledge on the concept
<p>T: Is there a root in <i>quantities</i>? If not, what is the base word? S1: It is a plural. T: You are right. So what is the base word? What is the suffix? Come to the board to underline the suffix and the base word. S2 underlined <i>-s</i> as the suffix and <i>quantitie</i> as the base word. T: <i>-S</i> is one of the suffixes for plural. What is the other suffix? S3: <i>-es</i>? T: That's right. Then what is the base word? Spell it for us, please. S4: <i>Quantiii</i>?</p>	<ul style="list-style-type: none"> • Providing students with feedback • Guiding students to identify the suffix and the base word
<p>T: A good try! Close. This is a very tricky word. In English, sometimes when you add a suffix to a base word, you have to change the spelling of the base word. Because the word ends in the letter <i>y</i>, it needs to be changed to the letter <i>i</i> before <i>-es</i> can be added. The base word is <i>quantity</i>. Who can give me other examples that this rule may apply to?</p>	<ul style="list-style-type: none"> • Identifying and explaining the spelling rule • Inviting students to apply the rule

(continued)

TABLE 5.5. (continued)

Teaching step	Instructional foci
<p>T: Let's look at this word's grammatical features. First, it is a plural noun, and used in a sentence as a . . .</p> <p>S5: Subject.</p> <p>T: Good!</p>	<ul style="list-style-type: none"> Identifying the grammatical features of the word
<p>T: Now, let's look at the word <i>transported</i>. This is a complicated word. I am sure that you can tell the number of morphemes in the word, and each of the morphemes.</p>	<ul style="list-style-type: none"> Repeating the same steps with the word <i>transported</i>
<p>T: Remember, a morpheme can be a word as long as it has one meaning. Look at the words in this sentence again. There are two words having more than one morpheme.</p>	<ul style="list-style-type: none"> Identifying compound words Conducting morphemic analysis

Sentence: "Huge quantities are transported at sea in tankers, sent along pipelines, and brought up from the seabed" (MacQuitty, 1995, p. 62).

Word	Morphemic Analysis	Spelling	Grammatical Features
<i>quantities</i>	base word: <i>quantity</i> suffix: <i>-es</i>	The letter <i>y</i> in <i>quantity</i> is changed to <i>i</i> before <i>-es</i> is added.	a plural noun as the subject of the sentence
<i>transported</i>	root: <i>port</i> prefix: <i>trans-</i> suffix: <i>-ed</i>	no change The sound /i/ is added before the sound /d/.	a past participle as a verb in a passive voice
<i>tankers</i>	base word: <i>tank</i> suffix: <i>-er</i> suffix: <i>-s</i>	no change	a plural noun as the subject of the prepositional phrase in the tanks
<i>pipelines</i>	base words: <i>pipe, line</i> suffix: <i>-s</i>	no change	a plural noun as the subject of the prepositional phrase along pipelines
<i>seabed</i>	base words: <i>sea, bed</i>	no change	a plural noun as the subject of the prepositional phrase from the seabed

FIGURE 5.4. A lesson plan for morphemic analysis, spelling, and grammatical features.

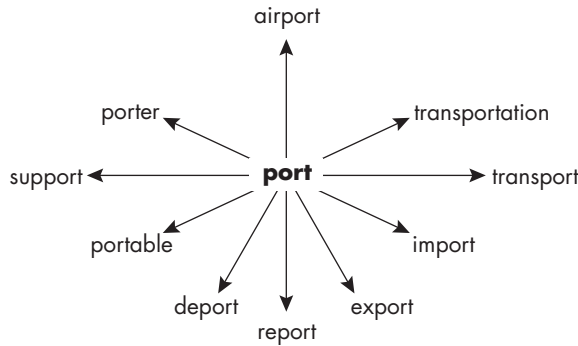


FIGURE 5.5. An example of morphemic mapping.

Focusing on Concepts

In teaching academic vocabulary, as Akhavan (2006) reminds us, we should teach concepts that words represent, not just words. The strategies of list–group–label, using analogies, concept circle, and concept of a definition map, with a focus on concepts, can be adapted to use with ELLs.

List–Group–Label

The strategy list–group–label, developed by Taba (1967), requires students to first group a list of words based on a pattern and then provide a label for each group of words (see Figure 5.6). This strategy directs students’ attention to the meaning of each word, the shared meaning of related words, and a concept each group of words represent. In creating a label for a group of words, students demonstrate their understanding about the hierarchical relationship between the concept and the words representing the concept. In the example, the phrase *linear measure* is a

List	Group			Label		
				U.S. Customary System		
foot gallon inch league mile ounce pint pound quart ton yard	inch foot yard mile league	pint quart gallon	ounce pound ton	<u>Linear Measure</u> inch foot yard mile league	<u>Liquid Measure</u> pint quart gallon	<u>Weight Measure</u> ounce pound ton

FIGURE 5.6. An example of list–group–label.

hyponym for the words *inch*, *foot*, *yard*, *mile*, and *league*. In addition, students are required to use content-specific terminology. Instead of labeling the group words in the preceding example with the phrase *measurement for length*, students must use the term *linear measure*. It is more beneficial to ELLs if you encourage students to think aloud about their grouping and labeling process. Such sharing provides further assessment data for you.

Using Analogies

Word analogies have long been used for linking a similar concept to the new, unfamiliar one students are learning to aid understanding. Harmon, Wood, and Hedrick (2006) list some types of analogies:

Part to Whole (*finger : hand :: toe : foot*)
 Person to Situation (*Roosevelt : Great Depression :: Lincoln : Civil War*)
 Cause and Effect (*aging : facial wrinkles :: sunbathing : tan*)
 Synonym (*master : expert :: novice : apprentice*)
 Antonym (*naive : sophisticated :: alien : native*)
 Geography (*Rocky Mountains : west :: Appalachian Mountains : east*)
 Measurement (*inches : ruler :: minutes : clock*)
 Example (*Folgers : Maxwell House :: Cheerios : Corn Flakes*)
 Functions (*switch : lamp :: key : door*) (p. 47)

For ELLs, using analogies can be equally effective in enhancing students' understanding of a new concept when used appropriately and when you have considered several factors. First, you need to be mindful about the prior knowledge about the concept that you have assumed is familiar to ELL students. It is possible that what you think should be already in students' prior knowledge can be a brand new concept to them. If this "teacher-assumed" concept is used in an analogy, the strategy of using analogies would lose its purpose. Rather, it may confuse students more. In this example, *grapefruit : citrus fruits :: blueberries : berry fruits*, if a student does not know anything about grapefruit, he or she would have difficulty understanding this new concept (blueberries belong to the berry fruit category). A second consideration is about word choice. At times, one concept can be expressed by different words, some of which are more familiar to students than others. If you want to use an antonym analogy to facilitate students in understanding the concept of acid and base, you can use the pair *north : south*, which is easier to understand than the pair *opponent : ally*. The latter pair, however, may not be difficult for older ELLs who have some foundation in social studies.

Analogies can be used in the various stages of teaching: during preteaching of vocabulary when you assess students' knowledge about the concept and the words representing it; during teaching when you support students in mastering the concept being taught; and after teaching when you assess students' learning outcomes. After students have become familiar with analogies, they should be encouraged to make their own analogies based on learned concepts. The process of making analogies strengthens their understanding of concepts and the words representing the concepts.

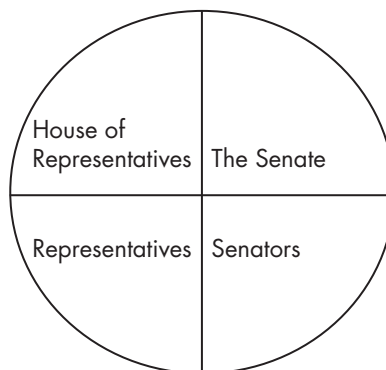
Concept Circle and Concept of a Definition Map

Vacca and Vacca (2005) suggest using a circle map where students list the words related to a concept and write a sentence explaining the relationship among the words (see Figure 5.7). Beginning ELLs may use pictures to complete a concept circle. A concept of definition map challenges students to elaborate on the chosen concept (Schwartz & Raphael, 1985) (see Figure 5.8). You would have ELLs at an advanced level use this map to summarize what they have learned. While teaching a concept, you also can create this map as a visual aid to present information in an organized way and to assist students to note the relationship between elements related to a concept.

Focusing on Procedural Vocabulary

The term *procedural vocabulary* refers to vocabulary “used to establish relations in context,” which often occurs in science discourse (Marco, 1999, p. 6). Procedural vocabulary often contains content and functions words, the latter signaling the relationship of the content word to other concepts or the context. For example, in the math problem *What is the smallest product of the two consecutive odd numbers?*, the phrase *the product of* is procedural vocabulary in which the content word, *product*, presents a concept, and the function word, *of*, signals a relationship between the concept *product* and the other two concepts, *consecutive* and *odd numbers*. In a study of procedural vocabulary from published scientific books and articles, Marco (1999) identifies nine relationships procedural vocabulary represents:

1. “Identity Relation”: *be the same as, be equal to, share*
2. “Difference Relation”: *be different from, be unlike*
3. “Inclusion Relation”: *be a member of, range from*
4. “Exclusion Relation”: *be absent from, lack*
5. “Process Relation”: *evolve from, result in*



The U.S. Congress is made up of the House of Representatives and the Senate. Both senators and representatives are elected.

FIGURE 5.7. Circle map.

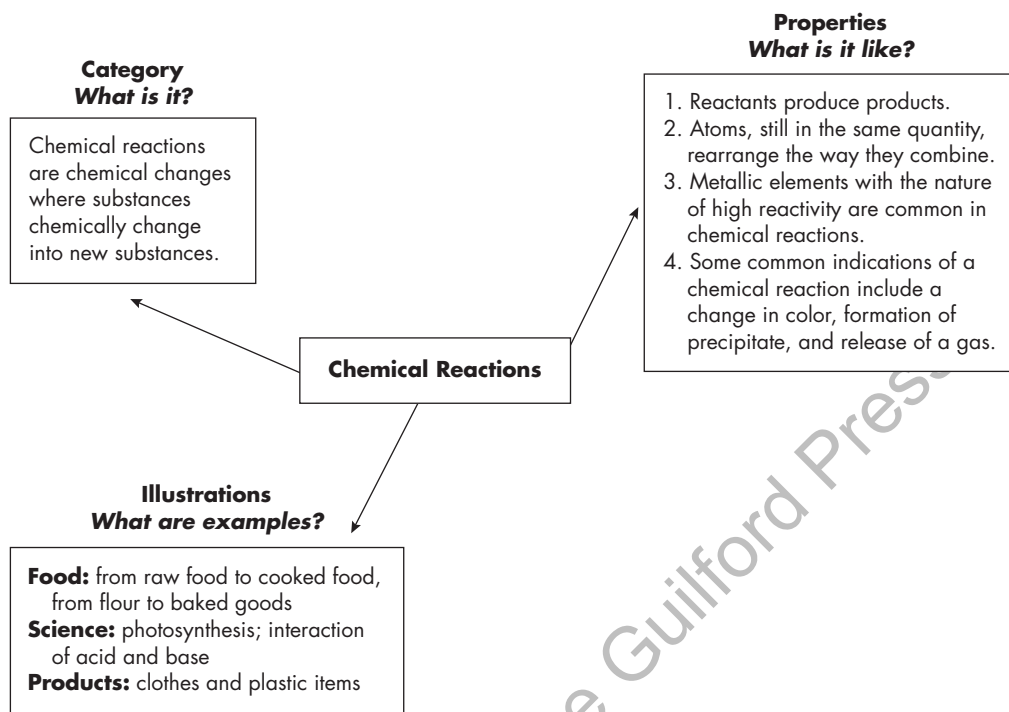


FIGURE 5.8. A concept of definition map.

6. "Function": *be used as, be used to*
7. "Spatial Relation": *be surrounded by, extend*
8. "Relations between the concept and its physical characteristics": *in the form of, be oval-shaped*
9. "Quantity modification": *a series of, a number of* (pp. 8–17)

The importance of procedural vocabulary cannot be underestimated, as procedural vocabulary is critical in conveying complicated messages in science, math, and social studies texts. It represents a special challenge to ELLs mostly because of prepositions. If students fail to figure out a relationship based on a preposition, they may understand the concept but not its relation to the other concept(s) or the context in general. In the example *What is the smallest product of the two consecutive odd numbers?*, if students cannot figure out that the word *of* indicates a process relationship between the concept *product* and the other concepts, *the two consecutive odd numbers*, they cannot solve this math problem.

Harmon et al. (2006) describe a useful activity which promotes ELLs' learning about procedural vocabulary. In Figure 5.9, I list each step with an example. In addition to the activity described in Figure 5.9, you can designate a word wall or part of the word wall to display procedural vocabulary by categories. This makes procedural vocabulary more visible and accessible for students when they need the phrases during reading and writing.

Text: "Many people collected sea shells because of their beauty, but most shells sold in shops have been taken as living animals. If too many shelled creatures are collected from one place, such as a coral reef, the pattern of life can be disrupted" (MacQuitty, 1995, p. 62).

Step	Example
1. Identifying procedural vocabulary phrases	<i>because of, been taken as, are collected from, the pattern of</i>
2. Using each phrase in a sentence about a familiar topic	We are so happy <i>because of</i> the high scores on the tests. The boys were <i>taken as</i> slaves. The box tops <i>are collected from</i> my neighbors. I notice <i>the pattern of</i> odd number, odd number, and even number in this group of numbers.
3. Discussing the purpose of each phrase	<i>because of</i> —indicating a process <i>been taken as</i> —indicating identity <i>are collected from</i> —indicating inclusion <i>the pattern of</i> —indicating identity
4. Having students discuss each phrase in the sentence of the text and its meaning	For the sentence: <i>Many people collected sea shells because of their beauty, but most shells sold in shops have been taken as living animals.</i> Student 1: The phrase <i>because of</i> is for the process. Because sea shells are beautiful, many people want to collect them. Student 2: So this is the cause-effect process. Student 2: The phrase <i>taken as</i> indicates identity. The shells people collect are actually living animals, like mussels. They are not dead. Student 1: Just like we see on the news, so and so was taken as a hostage.
5. Reminding them to be aware of the phrases	Remember the purpose and meaning of each phrase. Apply the meaning of the phrase to the context to see if it makes sense.

FIGURE 5.9. An activity for procedural vocabulary.

Paraphrasing

Another way to enhance students' academic vocabulary is to have students paraphrase original words in a text they are reading. Paraphrasing not only facilitates students in refining their writing so that ideas are expressed more clearly and cohesively, but it also encourages them to think about the meaning and usage of words. The example provided by Nation (2001) is illustrative of English verb usage, and in particular, verbal phrases. In the original sentence, "Everybody will

be helped by the changes” (p. 183), the verb phrase in a passive voice is *be helped by*. When the word *benefit* is used to paraphrase the verb *help*, the preposition *from* replaces the preposition *by* in the original sentence. That is, the paraphrased sentence, now in an active voice, is *Everybody will benefit from the changes*.

When having students paraphrase certain words in their writing, you can supply words for paraphrasing the original ones if you want to make the task less challenging, or you can have students come up with appropriate words if you want to withdraw your support. If students have use the wrong word to paraphrase an original word or use a correct word but the usage is wrong (e.g., using *benefit by* instead of *benefit from*), you can conduct a quick on-the-spot mini-lesson to draw students’ attention to word meaning and usage.

Teaching Definitions

Academic vocabulary is often associated with a definition of a concept. Definitions of concepts are so important for students to understand, as they are key to the concepts under study. Regular dictionaries do not always provide a definition at the students’ level of language proficiency, cognitive maturity, and background knowledge. Nation (2001) advises that teachers take the following steps:

1. Provide a clear, simple, brief explanation of a word when students first encounter it so that they are not overwhelmed by a complicated definition.
2. Explain the related meanings of the word when used in different contexts (e.g., *induction of electricity* and *induction from observations*).
3. Provide opportunities for students to experience repeated exposure to the word.
4. Teach students to recognize the different forms of definitions in texts they are reading (e.g., a definition in the form of an appositive, a definition in the form of a relative clause).
5. Prioritize the aspects of the word to be taught, beginning with its meaning (for example, explaining the meaning of the word *bacteria* is not enough; students need to know the grammatical feature of this word—*bacteria* is in the plural form of a noun. Knowing its meaning and grammatical feature, students will know how to use the word. If the word is used as a subject in a present tense, the verb should not be in a third person singular tense.).
6. Use various ways to assist students to remember the word (e.g., morphemic analysis).
7. Avoid relating the word to unfamiliar words with a similar form or to its synonyms, antonyms, and other words related to the same lexical category (e.g., students would be confused about the meaning of the target word *cumulative* when another word similar in spelling and meaning, *accumulative*, is also introduced).

Teaching Dictionary Use

In addition to learning a definition of a word from its context, students often get information about a word from a dictionary. Dictionary use is often a highly contested topic. Some advocate its use, whereas others suggest that students come up with their own definition based on their understanding of the word/concept. There is some truth to both sides. On one hand, you should encourage students to use context clues to figure out the meaning of an unknown word. One reason for this is that a dictionary does not always provide a definition that fits well with the context in which the word appears. Furthermore, a constant consultation of a dictionary while reading interrupts the flow of reading and thus affects the quality of comprehension. For example, there is no need for a student to look up the word *reflex* in this sentence: “This is a reflex action, meaning the muscles react automatically” (Bingham, 2003, p. 31). The word *meaning* signals that what follows is an explanation of the word *reflex*. The word *this* as a referent prompts the student to pay attention to the previous sentence giving one example of reflex reaction: “Under water, a baby will close a muscle to keep water out of its lungs” (p. 31).

On the other hand, some academic words appear in a context with densely packed concepts and complicated sentence structures, and the meanings of these words would be difficult for students to extract by using available context clues. In this case, looking up the words in a dictionary or at times multiple dictionaries may be helpful. Take a look at this example: “Fundamental forces and laws dictate what matter is like and how it behaves. The strongest of the four fundamental forces (the strong force) binds particles together in the nucleus of atoms” (Kerrod, 2003, p. 10). These two sentences are packed with concepts possibly difficult for students to figure out if they rely only on the context clues *fundamental forces and law, dictate, particles, and nucleus*. Looking up words in a dictionary would give students a quick piece of information about *particles* and *nucleus* and about the new meaning of the words with the commonly known meaning of *fundamental forces and law* and *dictate*.

You should also keep in mind several guidelines for dictionary use (Nation, 2001). One is related to the types of dictionaries accessible to students. Dictionaries with illustrations and simple language are most helpful to students in learning academic words. *Scholastic’s Visual Dictionary* (Corbeil & Archambault, 1994), with 700 illustrations for 5,000 terms in 350 subjects, offers students with English equivalents for the concepts they may have learned in L1. *Scholastic Science Dictionary* (Berger, 2000), with illustrations, explains complicated science concepts in simple, clear language comprehensible to students. Many online dictionaries even allow readers to listen to the pronunciation of a target word (see Figure 7.12 for a list of online bilingual dictionaries). My favorite online dictionaries are Merriam-Webster Online (www.merriam-webster.com) and The Free Dictionary (www.thefreedictionary.com).

Second, you should teach students how to use a dictionary both receptively and productively. Nation’s (2001) description of receptive and productive use of a

dictionary guides teachers to identify foci in vocabulary instruction. The receptive use of a dictionary includes the following:

1. Get information from the context where the word occurred.
2. Find the dictionary entry.
3. Choose the right sub-entry. Once the correct entry has been found there may be a need to choose between different meanings and uses listed within that entry.
4. Relate the meaning to the context and decide if it fits. (pp. 285–286)

The productive use of a dictionary includes the following:

1. Find the wanted word form.
2. Check that there are no unwanted constraints on the use of the word. This step involves the skills of interpreting the dictionary style labels and codes.
3. Work out the grammar and collocations of the word. Some of this information can come from the example sentences in the dictionary.
4. Check the spelling or pronunciation of the word before using it. (pp. 287–288)

While the focus of instruction needs to be on the productive use of dictionary, you cannot assume that students have been taught and know how to use the dictionary receptively. It is necessary for you to use a few words from a text students are reading to assess students' receptive dictionary use. Based on the assessment results, you can plan needed lessons on dictionary use.

Focusing on Students' Interest and Independent Learning

Scholars with expertise in vocabulary instruction for both ELLs and non-ELLs point out the importance of student interests in their vocabulary learning (Blachowicz et al., 2006; Scarcella, 2003). When encouraging students to identify and collect words interesting to them, you motivate them to note a close connection between school learning and lifelong learning and prepare them to apply language beyond the classroom walls. Issue logs, collecting interesting words, and personal vocabulary journals are just three examples of activities that incorporate students' interests.

Issue Logs

Nation (2001) suggests use of an issue log, where a student gathers information from various sources on a topic of interest over several weeks (see Figure 5.10 for an example). Students orally share the information with a small group weekly, and every two weeks, students write a report summarizing what has been gathered. In the oral sharing and written report, students are required to use newly learned vocabulary. The issue logs prepare students for writing a final report on the topic of choice. This activity supports students in developing knowledge about the form,

Topic: Rising Gas Price				
Information		Vocabulary		
Information	Source	Word	Meaning	Forms
Adjusting to Increasing Gas Prices	Mountain View Daily	<i>recession</i>	declining, falling	noun synonym: <i>depression</i> antonym: <i>booming</i>
		<i>weak</i>	not good, downward	adjective antonym: <i>strong</i>
		<i>relief</i>	help, aid	noun synonym: <i>aid</i>
Text to Be Shared: The skyrocketing fuel price has pushed the weak economy into recession. To offset the fuel price, some people have bought four-cylinder cars or smaller cars. One state has used an energy relief plan by not raising tax on gas.				

FIGURE 5.10. An issue log (rising gas price).

meaning, and usage of words. Furthermore, the students' choices of topics provide an opportunity to initiate learning in their interest areas, thus motivating them to complete the task.

Collecting Words from Texts of Interests

In this activity, students collect interesting words related to content areas they are studying or in which they are interested and/or an expert. They list collected words in a word book and share the words with a peer group or the whole class once a month. You browse word books at least once a week so that each student's book is read by you at least once a month. From the collected words, you learn about the topics of students' interests and the type of words to which students are exposed. Even if some students' areas of interest seem to be unrelated to any content areas, it is possible to identify words related to academic disciplines. In a recent study about vocabulary appearing in trading cards (e.g., Pokémon and Yu-Gi-Oh, which are types of popular culture texts, not academic texts), Xu (2008b) discovered some academic vocabulary. For example, the words *more* and *by* are related to math. The words *defense* and *field* can be found in a science text. The word *resistance* may be read in a social studies text about a resistance movement or in a text about electricity. Here are some words a fourth-grade ELL collected from one issue of *National Geographic Kids*: *survival*, *survive*, *nutrient*, *fertilize*, *aluminum*, *eliminate*, *equestrian*, *data*, and *pod*.

Knowledge of words interesting to students comes in handy for you during vocabulary instruction or literacy instruction, as you can make references to what students already know. Another way to use the collected words is during vocabulary instruction when you can encourage students to refer to their word books,

identifying words related to the concepts taught or the morphological or orthographic patterns of words under study. The collected words can also be used for independent practice during vocabulary instruction. For example, students can group the words and provide a label for each group in a list–group–label activity. These activities make vocabulary instruction more related to students’ learning.

Personal Vocabulary Journal

Developed by Wood (1994), and Wood (2002), this strategy encourages students to develop word consciousness in reading and listening to any texts to which they are exposed in school and outside school. In the journal, students document many aspects of a word, including its definition, usage, derivational words, synonym, antonym, and parts of speech. Figure 5.11 is an example of one entry in an adapted form of personal vocabulary journal from Harmon et al. (2006). You can invite students to share their journals at least once a week (see Appendix L for a reproducible version).

The New Word: <i>inflict</i>
The Text Where I Found the Word: <i>Wind and Weather</i> (Jeunesse, 1995)
The Sentence Where I Found the Word: “ <i>Tornadoes sometimes come in families or swarms. They can inflict terrible damage in just a few minutes.</i> ”
The Meaning I Guessed: <i>cause</i>
The Contextual Clues I Used for Guessing: <i>damages</i>
The Dictionary Definition: <i>force something not nice on someone or something</i>
The Part of Speech: <i>verb</i>
The Base Word or Root for the Word: <i>Latin inflictus</i>
The Derivational Words: <i>inflicting, infliction, inflictor, inflicative</i>
Synonyms: <i>force, cause</i>
Antonyms: <i>none</i>
The Content Area(s) Where This Word May Be Used: <i>science and social studies</i>
The Equivalent Word in L1: <i>infligir</i> (Spanish)
The Sentence Where I Am Using This Word: <i>Slave owners inflicted pains on slaves.</i>

FIGURE 5.11. A sample of a personal vocabulary journal. Form adapted from Harmon, Wood, and Hedrick (2006, p. 140). Copyright 2006 by the National Middle School Association. Adapted by permission.

DIFFERENTIATED INSTRUCTION OF ELLS LITERATE IN L1

Using Cognates

Cummins's (1979) concept of *common underlying proficiency* (CUP) provides support for teaching cognates. Cognate study is especially beneficial for those whose L1 shares a Latin base with English (Bravo, Hiebert, & Pearson, 2007; Freeman & Freeman, 2004). In Carlo et al.'s (2004) study, researchers found that teaching Spanish-speaking ELLs how to use Spanish cognates to gain meanings of academic words enhanced their growth in vocabulary and reading comprehension. Specifically, the teacher reviewed the definition of cognates and guided students to differentiate true and false cognates. This review and brief introduction were followed by a group cognate activity including (1) reading a passage; (2) looking for English words that have Spanish cognates; (3) on a worksheet, recording each pair of the English word and the Spanish cognate; and (4) discussing each of the Spanish cognates to make sure they are true cognates (sharing the same meaning with the English words). At the end of the group activity, the teacher led the class in discussing whether the cognates were true or false cognates.

If the group cognate activity described in Carlo et al.'s study is too difficult for your students, you can try with an activity of cognate sorting (Bear et al., 2007). In this activity, students are given a set of cards with correctly and incorrectly spelled Spanish cognates (e.g., *música*, *musique*, *musik*, *musikk*) to sort. Here are the steps:

1. Show students picture cards and English labels for the cards.
2. Have students match each picture card with its English label.
3. Ask students if they have a card of a Spanish cognate to match one of the cards in English.
4. When a student finds a card of a Spanish cognate, have him or her pronounce the word.
5. Lead students in discussing what they have noted about the cognates and the similarities to their corresponding English words.

Another cognate activity is to have each student identify words related to one particular content area under study, find the Spanish cognates, and document the English words and Spanish cognates, including their respective derived forms. Table 5.6 shows an example of the English word *system* and its derivational words in English and Spanish.

Once students have found pairs of English words and Spanish cognates, you can display them on the word wall, and/or have students record the words in their personal word book or dictionary (Williams, 2001). It is helpful to conduct a mini-lesson on the cognates. In particular, you and the class can discuss if each found cognate is a true one or a false one; if it is a true one, discuss what a root shared by the cognate and the English word is, and what the similarities and differences in the usage are. This type of discussion is valuable in enhancing students' knowledge about word meaning, form, and usage in both languages. Refer to

TABLE 5.6. An Example of English Words and Spanish Cognates

Noun	Verb	Adjective	Adverb
<i>system</i>	<i>systematize</i>	<i>systematic</i>	<i>systematically</i>
<i>sistema</i>	<i>sistematizar</i>	<i>sistemático</i>	<i>sistemáticamente</i>

coe.sdsu.edu/people/jmora/moramodules/SpEngCognates.htm and eslbears.homestead.com/cognates.html for examples of English-Spanish cognates, and german.about.com/library/blcognates_A.htm for examples of English-German cognates. Figure 5.12 lists some examples of English-Spanish cognates related to content areas.

For students whose L1 does not share any cognates with English, they can participate in another activity where they list an L1 equivalent for a concept expressed in English. This activity encourages students to activate their prior knowledge about concepts acquired through L1 and identify any possible connections between English and L1 (in the case of cognates). Table 5.7 lists some examples of Chinese and Spanish equivalents for the geometry concepts in English.

Translating Words on a Word Wall

One simple way to encourage students literate in L1 to utilize their vocabulary knowledge in L1 is to engage them in translating words displayed on a word wall from English to L1. Each L1 equivalent can be placed next to its English word, along with a picture if needed. When referring to each word, you can encourage those literate in L1 to say the L1 equivalent and provide necessary explanation to students illiterate in L1 but proficient in L1 oral language. This process supports students in making a connection between their knowledge of words known in L1 oral language to words in written L1 and English. During the process, you and your students can consult a dictionary or a bilingual person to ensure the accuracy of translations.

Making a Bilingual Dictionary

Students' vocabulary knowledge in L1 can be further tapped through making a bilingual dictionary. Working together, students literate in the same L1 document newly learned English words, everyday or academic, and provide an L1 equivalent for each English word. A picture may be provided for each word. The dictionary can be categorized by content under study (e.g., words related to American Civil War) or by characteristics of words (e.g., words with multiple meanings). During the process of making a bilingual dictionary, you should encourage students to discuss the similarities and differences in meaning, usage, and characteristics of words in English and L1. To ensure the accuracy of each word in L1, it is necessary to advise students to consult at least one L1 dictionary or bilingual dictionary. Making a bilingual dictionary can be ongoing throughout the school year. At

<p>A abnormal–anormal abolish–abolir absolute–absoluto abstraction–abstracción accelerate–acelerar acquire–adquirir adapt–adaptar adjust–ajustar audience–audiencia augment–aumentar authentic–auténtico author–autor automatic–automático autonomy–autonomía</p>	<p>G gas–gas globe–globo gradual–gradual</p> <p>H habitual–habitual hemisphere–hemisferio historian–historiador history–historia horizontal–horizontal hostile–hostil</p>	<p>oblige–obligar obscure–oscuro observe–observar obstruct–obstruir obtain–obtener occur–ocurrir</p>
<p>B balance–balanza (n), balancear (v) basis–base battle–batalla benefit–beneficio (n), beneficiar (v) biography–biografía</p>	<p>I ideal–ideal identity–identidad illuminate–iluminar imperial–imperial importance–importancia</p>	<p>P Pacific–Pacífico passive–pasivo past–pasado</p>
<p>C cable–cable calculate–calcular calendar–calendario combine–combinar candidate–candidato capacity–capacidad capital–capital conflict–conflicto contribute–contribuir control–controlar cooperate–cooperar copy–copia correct–correcto create–crear</p>	<p>J jargon–jerga judicial–judicial judiciary–judicatura justice–justicia justify–justificar</p>	<p>Q quarter–cuarto</p>
<p>D debate–debate decide–decidir declare–declarar decline–declinar direct–directo district–distrito</p>	<p>K kilogram–kilogramo</p> <p>L labor–labor (n), laborar (v) laboratory–laboratorio latitude–latitud legal–legal legislator–legislador liberal–liberal liberty–libertad limit–limitar line–línea list–lista</p>	<p>R rare–raro ray–rayo reason–razonar (v) recite–recitar reference–referencia refine–refinar reflect–reflejar</p>
<p>E effect–efecto electricity–electricidad element–elemento emigrant–emigrante empire–imperio enemy–enemigo essence–esencia establish–establecer</p>	<p>M magnitude–magnitud mandate–mandato manual–manual map–mapa mark–marca (n), marcar (v) mediate–mediar</p>	<p>S second–segundo senate–senado</p>
<p>F facilitate–facilitar facility–facilidad factor–factor falsify–falsificar family–familia</p>	<p>N narrate–narrar national–nacional nationality–nacionalidad native–nativo necessary–necesario necessitate–necesitar necessity–necesidad negative–negativo nerve–nervio normal–normal</p>	<p>T tariff–tarifa telescope–telescopio temperature–temperatura temple–templo temporary–temporal terminate–terminar theme–tema thesis–tesis tolerance–tolerancia tone–tono traditional–tradicional tunnel–túnel</p>
	<p>O object–objeto objective–objetivo</p>	<p>U ultimate–último united–unido unity–unidad universal–universal unjust–injusto use–usar (v) utilize–utilizar</p>
		<p>V vague–vago vary–variar vast–vasto vehicle–vehículo vein–vena velocity–velocidad verb–verbo victory–victoria violence–violencia violent–violento</p>

FIGURE 5.12. Some examples of English–Spanish cognates.

TABLE 5.7. Chinese and Spanish Equivalents for Geometry Concepts in English

English	Chinese	Spanish
<i>circumference of circle</i>	圆周长	<i>la circunferencia del círculo</i>
<i>area of circle</i>	圆面积	<i>área del círculo</i>
<i>surface area</i>	表面积	<i>área superficie</i>
<i>volume</i>	体积	<i>volumen</i>
<i>rectangular prism</i>	长方体	<i>prisma rectangular</i>
<i>cylinder</i>	圆柱	<i>cilindro</i>

the end of the year, you can either keep the completed bilingual dictionary for the next year's students or put it in the school library if there are multiple copies of a bilingual dictionary in the same L1 in your classroom. This process of dictionary making supports students in becoming more aware of their vocabulary in L1 and in English and provides you with an opportunity to learn about L1, whether you are literate in L1 or not. Further, this activity promotes students' sense of pride in L1 and self-confidence in their vocabulary knowledge.

ENGAGING FAMILIES

Students' participation in all literacy activities at school is not adequate for their development of vocabulary knowledge. Incidental learning, multiple exposures to words, and various levels of interaction with words outside school contributes, to some degree, to their vocabulary knowledge. Here are some ideas for family involvement:

- Family members observe how you teach vocabulary and how students interact with words. Provide a translator if needed.
- Family members continue reading to and with their children in L1 or in English and to discuss words in relation to the content of the book.
- Family members encourage their children to use newly learned words in oral language and writing.
- Family members discuss with students interesting L1 or English words they have heard from daily conversations and from media.
- Family members and students provide in a word book a definition, a sentence, and/or a picture for each interesting word collected from environmental print, books, or other texts.

- Family members and students play a game of words related to synonyms, antonyms, and multiple layers of meaning.
- Students share learned words with their families, explaining and using them in a sentence.

VOICE FROM THE CLASSROOM

Renee Gonzalez-Gomez

Abraham Lincoln Elementary School, Long Beach, California

As a Reading Recovery teacher in a K–5 urban elementary school with 68% of our student population as ELLs, I provide short-term literacy intervention to approximately 10 of the lowest achieving first-grade students per school year and supplemental literacy instruction to small groups of low achieving second- to fifth-grade students four days per week. The students' English proficiency ranges from beginning to early advanced levels.

I believe that ELLs possess a great capacity and strong desire to learn in English. I feel that ELLs may actually be more cognitively developed than native speaking learners because they already possess the foundations of one language. In classrooms where caring, knowledgeable, and effective literacy teachers provide instruction, ELLs can be successful. My instruction is data driven and supplements the classroom and core curriculum (Open Court). I use a variety of texts from our school's leveled library and high-quality literature. I have developed an effective lesson structure that includes word study, direct instruction with explicit modeling (comprehension skills, strategies, text structures, etc.), guided practice, and opportunities for students to listen, speak, read, and write.

Teaching academic vocabulary is a critical part of my instruction. When planning my lessons on academic vocabulary, I take into consideration all students' proficiency levels. Specifically, I make attempts to provide examples in the students' L1s (use of cognates), if possible. This allows students to link knowledge in their primary language to new learning in the second language. The use of pictures and realia is extremely valuable. I make every attempt to have the students restate the new vocabulary term in their own words and represent the new term through the use of pictures and/or symbols. I encourage student-to-student interaction because it promotes the use of language and engagement and increases learning rate (students learn so much from each other). I consistently provide opportunities for the students to encounter the new vocabulary in the reading and writing of a text. The following is an example of how I introduced the word *hibernate* to a group of second-grade ELLs.

T: (*showing the word hibernate*) Does anyone see something they know about this word?

S1: I see *hi*.

S2: I see *ate*.

S3: I know *er*.

T: Wow, you know a lot about how this word works. Now let's add two sounds that were left out (/b/, /n/) and put all of our parts together to say the word.

T AND Ss: *hi-ber-nate, hibernate*.

T: Does anyone know what our word *hibernate* means?

S1: Bears hibernate.

T: Yes, bears do hibernate. *Hibernate* means to sleep for a long period of time, days or weeks, in the winter time. (*Definition is given quickly so that students will not begin to assume other meanings of the word, given S1's sharing of his background knowledge*). Now let's write the word *hibernate* on our sheet. (*T elaborates on what it means to hibernate a bit more and gives a couple of examples, and then asks the students to think about the word hibernate, and what it means, and then get ready to share orally.*) Put your thumb up in front of you when you are ready to share what it means when animals *hibernate*.

S1: *Hibernate* means when animals sleep deep in the winter.

S2: Hibernate is when animals sleep for a long time in the winter.

T: Today we are going to read a book called *Hibernation*. As you read, you will think about what it means to hibernate and find out which animals hibernate. After we have finished reading the book, we will share what it means to hibernate with each other and then write the meaning in our own words on our sheet. We will get a chance to use the word *hibernate* in our own sentence and then draw a quick picture illustrating the word *hibernate*. (*Students read the text as the teacher "listens" to their reading. They then discuss the text.*) Now that you have read the text, and we have had a discussion, think about the word *hibernate*, and think about how you will write what it means on your sheet. When you are ready, show us your thumb so that we can share before writing. (*Students share with partners as teacher listens in.*) Who would like to share what your partner said or what you told your partner about what it means to hibernate?

S1: Hibernate means to sleep deep.

S2: She said hibernate means to sleep in the winter for a lot of days.

S3: Chipmunks hibernate in the winter because it is cold and they don't find food.

T: (*To S3*) Your sentence is good, but you didn't tell us what it *means* to hibernate.

S3: It mean to sleep.

The students complete their sheets by writing the meaning in their own words, using it in a sentence (after orally rehearsing with a partner), and drawing a picture about the word.

I often implement graphic organizers and word sorts to teach academic vocabulary. In word sorts, students categorize words with similar meanings or similar structures (affixes, base/root words). Students at a more proficient level enjoy and benefit from "playing" with English (e.g., idiomatic expressions, similes, meta-

phors). The following is one example of how I teach academic vocabulary to fifth-grade ELLs.

T: We have been working on Latin roots and sorting words that have a similar root in them. Today, our vocabulary word is *spectator* (*showing but not saying the word*). Does anyone see a part of this word you know?

S1: I see the Latin root *spec*.

S2: It has *or* at the end.

T: I think that with those observations we can say the whole word.

T AND SS: *Spectator*.

T: There is a word in Spanish that looks very similar to our word *spectator* and has the same meaning. It is *espectador*. Has anyone seen or heard that word in Spanish?

S2: I heard it in Spanish, but I'm not sure what it is.

T: Someone said they saw the Latin root *spec* in the word, which means "to look" and the *or* at the end means someone who does, so the word *spectator*, as well as *espectador*, means someone who looks or watches.

S3: Like if I am watching a soccer game.

T: Yes, you are a spectator. (*Teacher continues giving more information about what spectator means and shows a picture of fans watching a football game.*) Now think of the word and put the meaning into your own words and then we will share with each other before writing.

The students complete the sheet, which is similar to the second-grade sheet, but they are required to include a synonym for the new word, identify the Latin or Greek root, define the word, and illustrate the word (see Figure 5.13). The students, regardless of their English proficiency levels, are engaged and enthusiastic about learning words.

If I were to offer one tip for teaching academic vocabulary for other teachers, it would be first and foremost to respect and know your students. I realize that this tip is broad and general, but ELLs are not going to be open to learning anything, especially academic vocabulary, if they do not feel respected and valued first. Before any meaningful teaching and learning can occur, an overall feeling of mutual respect and value must be established. Once this type of environment is established, you may be amazed at the amount of learning that will occur (academic vocabulary learning and otherwise!).

CONCLUSION

I began this chapter with an overview of vocabulary development, including a discussion on the characteristics of academic vocabulary. The strategies and activities for vocabulary development focus on preparing ELLs to understand and apply

Word: Spectator

Meaning: Watching an Actived but not doing
the activated.

Use: The two astronauts were Spectators of
outer space.

Synonym: Watcher

Latin/Greek Root: Spec: to look

Illustrate the word:

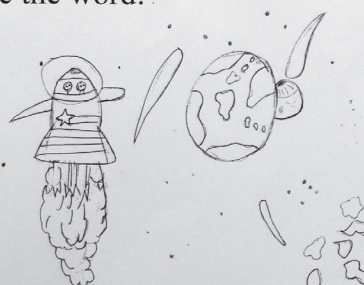


Figure 2

FIGURE 5.13. An activity with the word *spectator*.

academic vocabulary in oral and written language. The classroom examples and Ms. Gonzalez-Gomez's sharing of her teaching academic vocabulary to ELLs illustrate the importance of integrating vocabulary instruction into all components of literacy instruction, scaffolding ELLs' learning process, and building instruction on ELLs' experiences with L1 and on their interests. What has been presented in this chapter reminds us again that ELLs will develop their vocabulary knowledge and an ability to use words effectively for interpersonal and academic purposes only after they are exposed to the English language and L1 and given opportunities to apply, with proper teacher guidance, vocabulary knowledge and to develop a love for words.

Anecdotal Record Form

Student Name:	
Setting (e.g., playground, small-group activity)	Content (e.g., discussing a book, playing basketball)
Standard	
Date: Record: Example:	
Date: Record: Example:	
Date: Record: Example:	

(continued)

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Anecdotal Record Form (page 2 of 2)

Peers with Whom the Student Is Interacting (Name(s) and Proficiency Level)

Strengths:

Needs:

Plan for Instruction

Writing Strengths and Needs

Student Name:		Date:		
Check All That Apply:				
<input type="checkbox"/> Writing on a self-selected topic:				
<input type="checkbox"/> Writing on a given topic:				
<input type="checkbox"/> Writing related to content:				
Elements of Writing	Questions to Consider	Frequency of Presence		
Ideas	Does the writing have a clear focus?	Often	Sometimes	Seldom
	Are there supporting details for each topic sentence or thesis statement?	Often	Sometimes	Seldom
	Are multiple ideas well connected?	Often	Sometimes	Seldom
Diction	Does the student use appropriate, specific words to convey meaning?	Often	Sometimes	Seldom
	Does the student use a variety of words to convey a similar meaning? (e.g., the words <i>exciting</i> and <i>interesting</i> for the word <i>fun</i>)	Often	Sometimes	Seldom
	Does the student use only known or short words?	Often	Sometimes	Seldom
	Does the student code switch?	Often	Sometimes	Seldom
Sentence Structure and Variety and Text Structure	Does the student use a variety of sentences?	Often	Sometimes	Seldom
	How often does the student use simple sentences?	Often	Sometimes	Seldom
	How often is the structure of simple sentences correct?	Often	Sometimes	Seldom
	How often does the student use compound sentences?	Often	Sometimes	Seldom
	How often is the structure of compound sentences correct?	Often	Sometimes	Seldom
	How often does the student use complex sentences?	Often	Sometimes	Seldom

(continued)

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Writing Strengths and Needs (page 2 of 2)

Elements of Writing	Questions to Consider	Frequency of Presence		
Sentence Structure and Variety and Text Structure (continued)	How often is the structure of complex sentences correct?	Often	Sometimes	Seldom
	Are sentence structures reflective of interferences from L1?	Often	Sometimes	Seldom
	Does the narrative have a beginning, middle, and end?	Often	Sometimes	Seldom
	Does the expository text have an introduction, body, and conclusion?	Often	Sometimes	Seldom
	Does the writing have all the elements of a text structure of a particular genre?	Often	Sometimes	Seldom
	Does the student use cue words for a particular text structure (e.g., <i>similar to</i> for comparison and <i>on the contrary</i> for contrast)	Often	Sometimes	Seldom
Spelling	Does the student use invented spelling?	Often	Sometimes	Seldom
	Does invented spelling interfere with conveying meaning?	Often	Sometimes	Seldom
	Does the invented spelling reflect interferences from L1?	Often	Sometimes	Seldom
	Does the student write only words he or she can spell correctly?			
Punctuation	Does the student use punctuation properly?	Often	Sometimes	Seldom
	Does the student use varied punctuation effectively?	Often	Sometimes	Seldom
Capitalization	Does the student use capitalization properly?	Often	Sometimes	Seldom
Plan for Instruction				