CC-1 (pedagogy)

Table 4.2 Levels of Vocabulary Learning (Partnership for Reading, 2001)

Level of Word Knowledge	Definition
Unknown	The word is completely unfamiliar and its meaning is unknown.
Acquainted	The word is somewhat familiar; the student has some idea of its basic meaning.
Established	The word is very familiar; the student can immediately understand its meaning and use it correctly.

they may be learning both new concepts and new words. Learning words and concepts in science, social studies, and mathematics is even more challenging because each major concept often is associated with many other new concepts. For example, the concept *deserts* is often associated with other concepts that may be unfamiliar, such as *cactus, plateau,* and *mesa.* (Partnership for Reading, 2001, p. 43)

What Research Tells Us About Teaching Vocabulary

Most vocabulary is learned indirectly, but some vocabulary *must* be taught directly. The following conclusions about indirect vocabulary learning and direct vocabulary instruction are of particular interest and value to classroom teachers (National Reading Panel, 2000):

indirectly

- *Children learn the meanings of most words indirectly, through everyday experiences with oral and written language.* Typically, children learn vocabulary indirectly in three ways. First, they participate in oral language every day. Children learn word meanings through conversations with other people; as they participate in conversations, they often hear words repeated several times. The more conversations children have, the more words they learn!

  Another indirect way children learn words is by being read to. Reading aloud is especially powerful when the reader pauses to define an unfamiliar word and, after reading, engages the child in a conversation about the book using the word. Conversations about books help children to learn new words and concepts and to relate them to their prior knowledge and experience (Partnership for Reading, 2001).

  The third way children learn new words indirectly is through their own reading. This is one of the reasons why many teachers believe that daily, independent reading practice sessions of 10–20 minutes are so critical (Krashen, 1993). Put simply, the more children read, the more words they'll learn. There is a caveat to mention on this point, however. Struggling readers are often incapable of sitting and reading on their own for extended periods of time. For best results, many readers get much more from their practice reading when working with a "buddy" who has greater ability.

directly

- *Students learn vocabulary when they are taught individual words and word-learning strategies directly.* Direct instruction helps students learn difficult words (Johnson, 2001), such as those that represent complex concepts that are not part of students' everyday experiences (National Reading Panel, 2000).

We also know that when teachers preteach new words that are associated with a text students are about to read, better reading comprehension results.

- *Developing word consciousness can boost vocabulary learning.* **Word consciousness** learning activities stimulate an awareness of and interest in words, their meanings, and their power. Word-conscious students enjoy words and are zealous about learning them. In addition, they have been taught how to learn new and interesting words.

  The keys to maximizing word consciousness are wide reading and use of the writing process. When reading a new book aloud to students, call their attention to the way the author chooses her words to convey particular meanings. Imagine the fun you can have discussing some of the intense words used by Gary Paulsen (1987) in his novel *Hatchet*, Shel Silverstein's (1974) clever use of rhyming words in his book of poetry *Where the Sidewalk Ends,* or the downright magical word selection employed by J. K. Rowling (1997) in *Harry Potter and the Sorcerer's Stone.* Encourage your students to play with words, by constructing puns or raps. Help them research a word's history and find examples of a word's usage in their everyday lives.

Which Words Should Be Taught?

McKeown and Beck (1988) have addressed an important issue in their research: Which vocabulary should be taught in elementary classrooms? They point out that one problem with traditional vocabulary instruction in basal readers has been the equal treatment of all categories of words. For example, a mythology selection in a basal reader about Arachne, who loved to weave, gives the word *loom* as much attention as the word *agreement.* McKeown and Beck point out that although the word *loom* may be helpful in understanding more about spinning, it is a word of relatively low use compared to the word *agreement,* which is key to understanding the story and of much higher utility as students move into adult life.

(handwritten margin note: loved according)

Not all words are created equal, especially in terms of difficulty in elementary classrooms. As McKeown and Beck (1988) explain:

> The choice of which words to teach and what kind of attention to give them depends on a variety of factors, such as importance of the words for understanding the selection, relationship to specific domains of knowledge, general utility, and relationship to other lessons and classroom events. (p. 45)

Why You Shouldn't Try to Teach *All* Unknown Words

There are several good reasons why you should not try to directly teach all unknown words. For one thing, the text may have far too many words that are unknown to students for direct instruction. Limit vocabulary teaching time to not more than 5 to 10 minutes so that students can spend the bulk of their time actually reading. Most students will be able to comprehend a fair number of new words, up to 5 percent, simply by using context clues in the passage. Students need many opportunities to practice and use the word-learning strategies you are teaching them for learning unknown words on their own.

(handwritten margin note: 8 – 10 words in a week)

Words You *Should* Teach

Realistically, you will probably be able to teach *thoroughly* only a few new words (8 to 10) per week, so you need to choose the words you teach carefully. Focus your
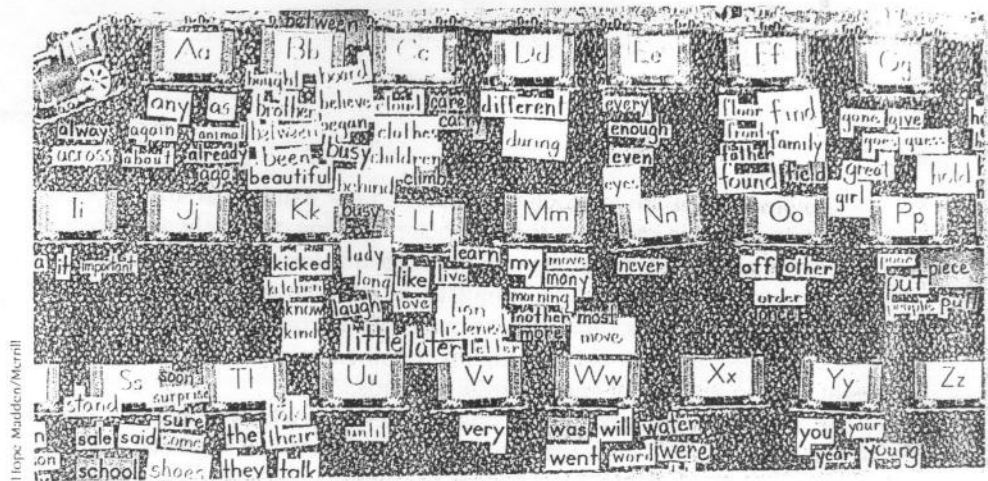
energy on high-utility words and words that are important to the meaning of the selections you will be reading in class.

Sight Words. **Sight words** occur frequently in most texts and account for the majority of written words. Understanding text relies, in part, on the immediate recognition of these high-frequency words. Studies of print have found that just 109 words account for upwards of 50 percent of all words in student textbooks, and a total of only 5,000 words accounts for about 90 percent of the words in student texts (Adams 1990b; Carroll, Davies, & Richman, 1971). Knowledge of high-frequency sight words can help readers manage text in a more fluent way. Many of these words, such as *the, from, but, because, that,* and *this,* sometimes called **structure words,** carry little meaning but do affect the flow and coherence of the text being read. The actual meaning of the text depends on the ready knowledge of less-frequent, or **lexical words,** such as *automobile, aristocrat, pulley, streetcar, Martin, Luther, King,* and *phantom.* Adams and her colleagues (1991) concluded that

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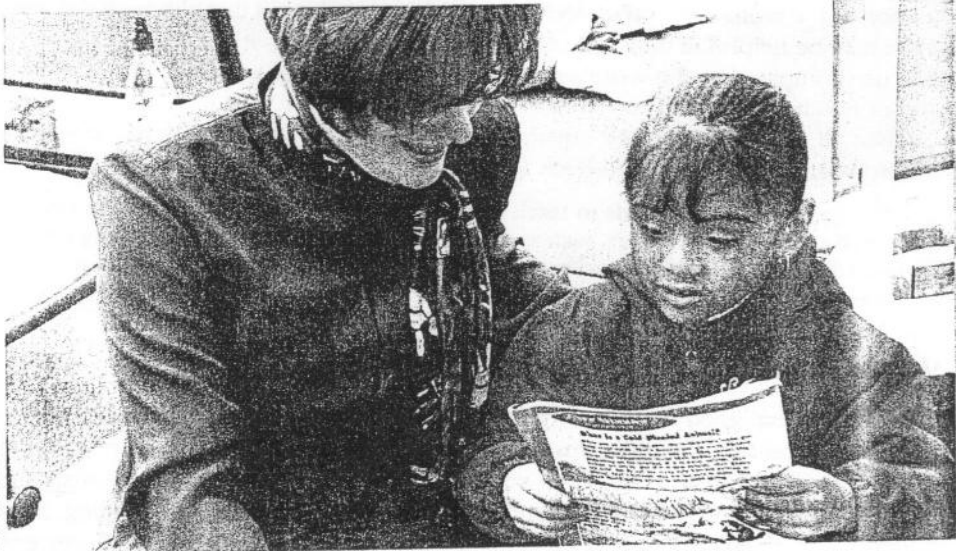
. . . while the cohesion and connectivity of English text is owed most to its frequent words (e.g., *it, that, this, and, because, when, while*), its meaning depends disproportionately on its less-frequent words (e.g., *doctor, fever, infection, medicine, penicillin, Alexander, Fleming, melon, mold, poison, bacteria, antibiotic, protect, germs, disease*). (p. 394)

Because it is critical that all students learn to instantly recognize sight words, the teacher should have a reliable list of these words as a resource. Figure 4.1 presents the Fry (2000) list of the 1,000 most common words in print. The Fry list is widely regarded as the best-researched list of sight words in the English language.

Sight Words for Bilingual Classrooms (Spanish). Just as the most common sight words have been identified in English, high-frequency words have also been identified for Spanish (Cornejo, 1972). This popular word list is divided by grade and presented in Figure 4.2.

Key Vocabulary. Silvia Ashton-Warner, in her classic book *Teacher* (1963), described **key vocabulary** as "organic," or lexical words that emerge from the child's experiences. Ashton-Warner describes key vocabulary words as "captions" for important events in the child's life.

Children can be taught key vocabulary through a variety of direct instructional strategies. One such strategy is described here: The student meets with the teacher individually at an appointed time, or during a group experience, and indicates which words he or she would like to learn. The teacher might prompt: "What word would you like to learn today?" The child responds with a lexical word—*police, ghost, sing.* The teacher writes the word on an index card or a small piece of tagboard using a dark marker. The teacher directs the student to share the word with as many people as possible during the day. After the child has done so, the word is added to his or her writing folder or word bank for future use in writing.

Ashton-Warner found that the most common categories of key vocabulary children wanted to learn were (1) fear words *(dog, bull, kill, police)*; (2) sex (as she called them) or affection words *(love, kiss, sing, darling)*; (3) locomotion words *(bus, car, truck, jet)*; and (4) a miscellaneous category that generally reflects cultural and other considerations *(socks, frog, beer, Disneyland, Dallas Cowboys).*

Ashton-Warner (1963) referred to key vocabulary as "one-look words" because one look is usually all that is required for permanent learning to take place. The reason that these words seem so easy for children to learn is that they usually carry strong emotional significance and, once seen, are almost never forgotten.

Discovery Words. During the course of a typical school day, students are exposed to many new words. These words are often discovered as a result of studies in the content areas. Words such as *experiment, algebra, social, enterprise, conquest, Bengal tiger, spider,* and *cocoon* find their way into students' listening and speaking vocabularies. Every effort should be made to add these **discovery words** to the word bank as they are discussed in their natural context. Such words often appear in student compositions. Developing vocabulary in content areas can help children discover words in their natural context.

Which Words Are the Most Difficult to Learn? Some words (or phrases) can be especially difficult for students to learn (National Reading Panel, 2000).

- **Words with multiple meanings** are quite challenging for students. They sometimes have trouble understanding that words with the same spelling and/or

Figure 4.1 Fry New Instant Word List

First Hundred				Second Hundred				Third Hundred			
1–25	26–50	51–75	76–100	101–125	126–150	151–175	176–200	201–225	226–250	251–275	276–300
the	or	will	number	over	say	set	try	high	saw	important	miss
of	one	up	no	new	great	put	kind	every	left	until	idea
and	had	other	way	sound	where	end	hand	near	don't	children	enough
a	by	about	could	take	help	does	picture	add	few	side	eat
to	words	out	people	only	through	another	again	food	while	feet	face
in	but	many	my	little	much	well	change	between	along	car	watch
is	not	then	than	work	before	large	off	own	might	mile	far
you	what	them	first	know	line	must	play	below	close	night	Indian
that	all	these	water	place	right	big	spell	country	something	walk	really
it	were	so	been	year	too	even	air	plant	seem	white	almost
he	we	some	call	live	mean	such	away	last	next	sea	let
was	when	her	who	me	old	because	animal	school	hard	began	above
for	your	would	am	back	any	turn	house	father	open	grow	girl
on	can	make	its	give	same	here	point	keep	example	took	sometimes
are	said	like	now	most	tell	why	page	tree	begin	river	mountain
as	there	into	find	very	boy	ask	letter	never	life	four	cut
with	use	time	long	after	follow	went	mother	start	always	young	young
his	an	has	down	thing	came	men	answer	city	those	carry	talk
they	each	look	day	our	want	read	found	earth	both	state	soon
I	which	two	did	just	show	need	study	eye	paper	once	list
at	she	more	get	name	also	land	still	light	together	book	song
be	do	write	come	good	around	different	learn	thought	got	hear	being
this	how	go	made	sentence	farm	home	should	head	group	stop	leave
have	their	see	may	man	three	us	America	under	often	without	family
from	if		part	think	small	move	world	story	run	second	it's
										later	

Source: Fry, Edward. (2000). *1000 Instant Words.* Westminster, CA: Teacher Created Materials.

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Figure 4.2   Cornejo's High-Frequency Word List for Spanish (Graded)

Pre-Primer	Primer	1st	2nd	3rd	4th	5th
a	alto	bonita	ayer	amar	árbol	amistad
azul	flor	arriba	aqui	aquí	bandera	azucar
bajo	blusa	fruta	año	debajo	abeja	contento
mi	ella	globo	cerca	familia	escuela	corazón
mesa	ir	estar	desde	fiesta	fácil	compleaños
pan	leche	café	donde	grande	fuego	edad
mamá	más	letra	hacer	hermana	hacia	escribir
lado	niño	luna	hasta	jueves	idea	felicidad
la	padre	luz	hijo	lápiz	jardín	guitarra
papá	por	muy	hoy	miércoles	llegar	estrella
me	si	noche	leer	once	manzana	igual
no	tan	nombre	libro	quince	muñeca	invierno
esa	sobre	nosotros	martes	sábado	naranja	orquesta
el	sin	nunca	mejor	semana	saludar	primavera
en	tras	ojo	mucho	silla	sueño	recordar
cuna	color	pelota	oir	sobrino	señorita	respeto
dos	al	porque	papel	vivir	tierra	tijeras
mi	día	rojo	paz	zapato	traer	último
de	bien	té	quien	tarde	ventana	querer
los	chico	taza	usted	traje	queso	otoño

From Cornejo, R. (1972). *Spanish High-Frequency Word List.* Austin, TX: Southwestern Educational Development Laboratory.

pronunciation can have different meanings, depending on their context. For example, note the different uses of *run* in the following sentences:

> Molly complained when she found a *run* in her hose.

> Jeff Johnston plans to *run* for Congress.

Also note the different uses and pronunciations of the word *read* in the following sentences:

> I will *read* the story later today.

> I *read* the story yesterday.

For some students, choosing a context-specific definition from a list of possible definitions in a dictionary can be daunting.

• **Idiomatic expressions** are combinations of words that have a meaning that is different from the meanings of the individual words. These can be especially problematical for language-deficient students and for students who are English language learners (ELL) (Cooter, 2003). Because idiomatic expressions do not convey the literal meanings of the words used, you may need to explain to students expressions such as "apple of my eye," "hell in a handbasket," or "like a chicken with its head cut off." A great book to use as a catalyst for discussing idioms is Fred Gwynne's (1976) *A Chocolate Moose for Dinner.*

Getting to Know English Learners
While urban students may have their own idiomatic expressions, or "slang" (that many "mainstream" students emulate and adapt), depending on one's culture and language, some idioms may be very foreign indeed!

## How Can Teachers Effectively Assess Students' Vocabulary Knowledge?

As a teacher, you must consider ways of assessing reading vocabulary knowledge to plan and evaluate instruction (Blachowicz & Fisher, 2006). While everyone would surely agree that vocabulary knowledge is important to reading success, attempting to measure the extent of student vocabulary acquisition can be problematic. Dale Johnson (2001), a prominent researcher in the area of vocabulary learning, explains three problem areas: (1) choosing *which* words to test, (2) determining what it means for a student to actually "know" a word, and (3) deciding how to reliably test vocabulary knowledge. In this section, we take a look at ways classroom teachers can construct useful vocabulary assessments. We also examine commercially available assessment instruments sometimes used for diagnostic purposes.

Problem

Word Maps for Assessment and Teaching

A **word map** (Schwartz & Raphael, 1985) is a graphic rendering—a sketch—of a word's meaning. It answers three important questions about the word: What is it? What is it like? What are some examples? Answers to these questions are extremely valuable because they help children link the new word or concept to their prior knowledge and world experiences, a process known to have an effect on reading comprehension (Stahl et al., 1991). For this reason, word mapping can be used as an assessment tool to measure the depth of a student's understanding of a word. Mapping can also be used during instruction to help children construct new understandings of a word or concept. An example of a word map is shown in Figure 4.3.

Solution

Figure 4.3   Word Map

What is it?

What is it like?

What are some examples?
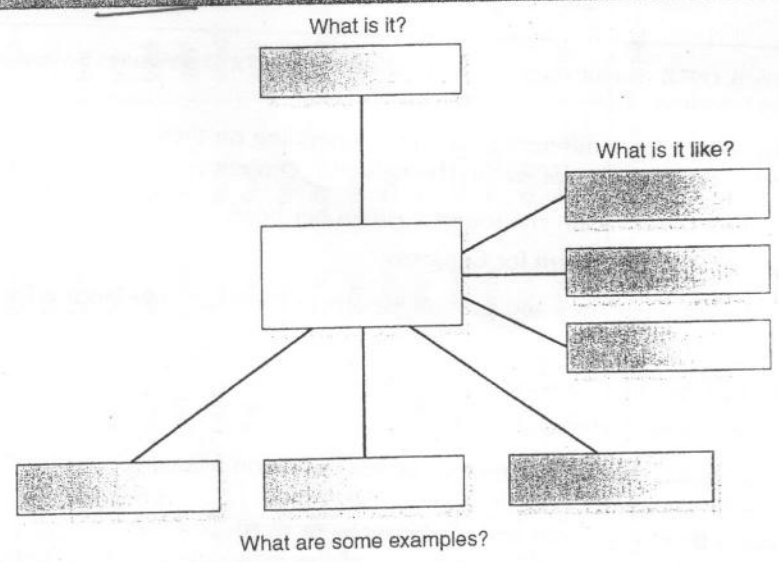
Introducing this vocabulary assessment to students is a relatively easy task. First, the teacher presents the idea of using this kind of graphic organizer to understand new word meanings and models the word map with examples and think-alouds. Next, students work with the teacher using word maps featuring the target word(s) to be evaluated using the three key questions indicated earlier.

Simple concepts should be used in teacher modeling exercises to help students learn how to map. A practice map might be constructed using the word *car.* Answers for each of the word map questions that might be offered by elementary students follow:

Word: *car*

What is it? (Something that moves people and things from one place to another.)

What is it like? (It has four wheels, metal, glass, lights, seats, and a steering wheel.)

What are some examples? (Honda, station wagon, Thunderbird, convertible)

After working through several examples of word maps with the class, the teacher should give students opportunities to practice using the map before moving on to assessing word knowledge.

Before-and-After Word Knowledge Self-Ratings

Blachowicz and Fisher (2006) recommend the **before-and-after word knowledge self-rating** as an efficient way to survey student vocabulary knowledge. In introducing students to a new text, the teacher lists important vocabulary-building words in that text along the left-hand side of a before-and-after word knowledge self-rating form and distributes a copy of the form to students. Using the three-level self-rating on the form, students indicate whether they do not know a word (level 1), have heard the word (level 2), or can define and use the word (level 3). This rating system is congruent with research findings of the Partnership for Reading (2001) (alluded to earlier in this chapter) and the National Reading Panel (2000), which describe the three levels of vocabulary learning: unknown, acquainted, and established. Figure 4.4 features a completed before-and-after word knowledge self-rating form completed by a student before and after reading a text on the theme of transportation.

Teacher-Constructed Vocabulary Tests

Johnson (2001) summarized the common ways teachers construct effective vocabulary tests to fit their curriculum and students' learning needs. You can have students do one or more of the following:

✓ Read a target word in isolation (by itself) and select a picture that matches.
✓ Look at a picture and find the matching word.
✓ Read a target word in isolation and match it to its definition.
✓ Read a target word in isolation and find its synonym in a list.
✓ Read a target word in isolation and find its opposite (antonym) in a list.
✓ Read a target word in the context of a sentence or short paragraph and find a definition, synonym, or antonym in a list.

Figure 4.4 Before-and-After Word Knowledge Self-Rating Form

Before-Reading Word Knowledge			
Key Terms	I can define and use this word in a sentence. (Established) 3	I have heard this word before. (Acquainted) 2	I don't know this word. (Unknown) 1
mileage	X		
freight		X	
GPS		X	
passenger	X		
fossil fuel			X
ethanol			X
route			X
express		X	
destination		X	
ETA			X
alternative fuels			X

After-Reading Word Knowledge				
Key Terms	Self-Rating (3, 2, 1)	Define	Use in a Sentence	Questions I Still Have About This Term
mileage	3	How far it is to a place you're going	The mileage from Salt Lake City to Provo is about 50 miles.	
freight	3	Things that are being shipped by a truck or by another way	Boxes on a truck are called freight.	
GPS	2	A kind of compass	A GPS can help me find my way home.	I can't remember what GPS means.
passenger	3	A person going somewhere in a vehicle	I was once a passenger in an airplane.	
fossil fuel	2	Makes a car run	Cars use fossil fuels to run the engine.	I don't know what *fossil* means.
ethanol	1			I can't remember anything about this. Did we really learn this?
route	3	How you are getting to a destination	I took a northern route to get to Canada.	
express	3	Getting something or someone to their destination quickly	I sent my package by FedEx overnight express.	
destination	3	Where you are going	My destination on my next trip is Boston.	
ETA	3	When you are getting somewhere	My estimated time of arrival or ETA is 9 A.M.	
alternative fuels	2	Like gas and diesel fuel	Some cars run on gas; others use diesel.	I think there may be other kinds, but I'm not sure.

✓ Read a sentence that has a target word left out. Fill in the blank with the missing word.

✓ Read a sentence and supply the missing target word orally.

✓ Read the target word and draw a picture of it. (Best used with young children.)

✓ Read the target word and place it in a category.

Modified Cloze Passages

Cloze passages, from the word *closure*, are short passages from books commonly used in the classroom in which certain words have been deleted (usually every fifth word) and replaced with a blank. For vocabulary assessment, teachers often use a **modified cloze passage** in which targeted vocabulary words have been deleted. Students are asked to read the cloze passages and fill in the missing words based on what they believe makes sense using context clues. In the modified cloze example (Figure 4.5), we have supplied in parentheses the target words selected by the teacher for this partial passage.

Cloze tests require that students use their background knowledge of a subject, their understanding of basic syntax (word order relationships), and their word and sentence meaning (semantics) knowledge to guess what a word missing from print might be (Cooter & Flynt, 1996). If students know the word and are reading effectively and with adequate comprehension, they are usually able to accurately guess the missing word—or, at least, a word of the same part of speech. This helps the teacher know whether the student has sufficient background knowledge and vocabulary to cope with a particular text. Materials needed to complete a cloze test include the textbook, a computer and word-processing program, and means by which to copy the cloze passage for students.

Maze Passages

The **maze passage** (Guthrie, Seifert, Burnham, & Caplan, 1974) is a modification of the cloze passage. Maze passages tend to be less frustrating to students than cloze passages because they are provided three possible answers to choose from in filling in the blank. Thus, students tend to get a greater percentage of items correct. The purpose and structure of maze passages are otherwise identical to those of cloze passages. You will need the textbook, a computer and word-processing program, and means by which to create the passage for students. Figure 4.6 features a partial maze passage.

Figure 4.5 Cloze Passage

> There exists an old American Indian legend about an eagle that thought it was a chicken. It happens that a *(Hopi)* farmer and his only son decided to go to a nearby mountain to find an eagle's nest. The *(journey)* would take them all day so they brought along some *(rations)* and water for the trip. The man and the boy hiked the *(enormous)* fields of *(maize)* and beans into the day. Soon thereafter they were on the mountain and the climb became *(rigorous)* and hazardous. They eventually looked back toward their village and at the *(panoramic)* view of the entire valley.

Figure 4.6 Maze Passage

There exists an old American Indian legend about an eagle that thought it was a

chicken. It ___

| a. happens |
| b. sharp |
| c. is |

that a Hopi farmer ___

| a. to |
| b. and |
| c. wheel |

his

only son decided to ___

| a. go |
| b. walk |
| c. Jim |

to a nearby mountain to ___

| a. bear |
| b. met |
| c. find |

an eagle's nest.

Vocabulary Flash Cards

A traditional way to conduct a quick assessment of a student's vocabulary knowledge uses flash cards. High-frequency words (those appearing most often in print) as well as other high-utility and specialized words for content instruction are printed individually in bold marker on flash cards and displayed to students for them to identify. Flash cards can also be produced with the computer and a word-processing program.

For recording purposes, you will also need a master list of the words to record each student's responses.

"Flash" each card to the student, one at a time, and ask him to name the word. Allow about five seconds for the student to respond. Circle any words that the student does not know or that he mispronounces on the student's record form.

This technique can be used to quickly assess vocabulary knowledge of an entire class. After you have shown the flash cards to all students, compile a list of troublesome words for whole-class or small-group instruction.

Published Diagnostic Vocabulary Tests

Several commercially published vocabulary tests are available. These are typically used by Title I reading specialists and special education faculty, but can be used by teachers who have appropriate training. We recommend three tests for assessing a student's word knowledge or **receptive vocabulary.** One is intended for native English speakers, and the other two are for students who speak Spanish as their first language and are learning to speak and read in English.

- *Peabody Picture Vocabulary Test, Third Edition* (PPVT–III) (Dunn & Dunn, 1997). The PPVT–III is a quickly administered instrument (11–12 minutes) that indicates how strong a student's vocabulary knowledge is compared to

other students of the same age nationally. Results can help the teacher better understand the needs of students in terms of formal and informal vocabulary instruction.

- *Test de Vocabulario en Imágenes Peabody* (TVIP) (Dunn, Lugo, Padilla, & Dunn, 1986). This test is an adaptation of an early version of the previously described *Peabody Picture Vocabulary Test* for native Spanish speakers. It takes about 10 to 15 minutes to administer and measures Spanish vocabulary knowledge.
- *Woodcock–Muñoz Language Survey* (WMLS), English and Spanish Forms (Woodcock & Muñoz-Sandoval, 1993). Teachers, particularly in urban centers, often have a large number of students who are learning English as a second language (ESL). The extent to which students have acquired a listening and speaking vocabulary in English is an important factor in reading instruction because reading (a) is a language skill, and (b) depends on learners having a fairly strong English vocabulary. The WMLS is a widely respected instrument used throughout the United States. It takes about 20 minutes to administer. It features two subtests: Oral Language and Reading/Writing.

Another test used widely in schools for special diagnoses of reading ability, the *Woodcock Reading Mastery Tests–Revised* (Woodcock, 1997), includes a norm-referenced word identification subtest among its battery of six individually administered subtests. These subtests measure reading abilities from kindergarten through adult levels, and cover visual-auditory learning, letter identification, word identification, word attack, word comprehension, and passage comprehension. The Woodcock's design reveals a skills perspective of reading, and divides assessment into two segments according to age and ability levels: readiness and reading achievement. The WRMT–R/NU reports norm-referenced data for both of its forms and offers suggestions for remediation. Results may be calculated either manually or by using the convenient scoring program developed for personal computers.

What Are Examples of Research-Proven Strategies Used in Vocabulary Instruction?

An important question for teachers is this: How can we help students increase their vocabulary knowledge? In this section we present some of the most successful methods.

Principles of Effective Vocabulary Instruction

From the research cited previously, as well as that conducted by Stahl (1986) and Rasinski (1998), we have developed a list of principles for effective vocabulary instruction.

Principle 1: Vocabulary is learned best through explicit, *systematic instruction.* Context helps readers choose the correct meaning for multiple-meaning words. The old adage that "experience is the best

teacher" is certainly true in vocabulary learning. The next best way to learn new vocabulary is through indirect, vicarious experience through daily reading in interesting and varied texts (Rasinski, 1998). Marilyn Jager Adams (1990a) put it this way:

The best way to build children's visual vocabulary is to have them read meaningful words in meaningful contexts. The more meaningful reading that children do, the larger will be their repertoires of meanings, the greater their sensitivity to orthographic structure, and the stronger, better refined, and more productive will be their associations between words and meanings. (p. 156)

Principle 2: Teachers should offer both definitions *and* context *during vocabulary instruction.* Children learn new words in two ways. First, they learn basic definitions or information that helps them connect the new word to known words (i.e., elaboration). This step can be accomplished by simply providing the definition, by building with students semantic maps linking the known with the new, and through examining the target word in terms of its synonym, antonym, classification, root, and affixes.

Context, which is the second foundation for building word knowledge, has to do with knowing the core definition of a word and understanding how that definition varies in different texts. For example, the word *run* is generally thought of as a verb meaning "to move swiftly." When looking for this simple word in the dictionary, one quickly realizes that the word *run* has approximately 50 definitions! Context helps the reader know which definition the author intends. In fact, without context, it is impossible to ascertain which meaning of a particular word is intended. Thus, it is important for teachers to help students understand both the definitional and contextual relations of words. Vocabulary instruction should include both aspects if reading comprehension is to benefit.

Principle 3: Effective vocabulary instruction must include depth of learning as well as breadth of word knowledge. Deep processing connects new vocabulary with students' background knowledge. Depth of learning, or **deep processing** of vocabulary, has two potential meanings: relating the word to information the student already knows (elaboration), and spending time on the task of learning new words (expansion). Stahl (1986) defines three levels of processing for vocabulary instruction:

1. *Association processing:* Students learn simple associations through synonyms and word associations.

2. *Comprehension processing:* Students move beyond simple associations by doing something with the association, such as fitting the word into a sentence blank, classifying the word with other words, or finding antonyms.

3. *Generation processing:* Students use the comprehended association to generate a new or novel product (sometimes called *generative comprehension*). This could be a restatement of the definition in the

student's own words, a novel sentence using the word correctly in a clear context, or a connection of the definition to the student's personal experiences. One caution relates to the generation of sentences by students: Sometimes students generate sentences without really processing the information deeply, as with students who begin each sentence with "This is a . . ." (Pearson, 1985; Stahl, 1986).

Principle 4: Students need to have multiple exposures *to new reading vocabulary words.* Multiple exposures to new vocabulary improve comprehension. Vocabulary learning requires repetition. To learn words thoroughly, students need to see, hear, and use words many times in many contexts (Rasinski, 1998). Providing students with multiple exposures in varied contexts appears to significantly improve reading comprehension. The amount of time spent reading these new words also seems to be a relevant factor in improving comprehension.

> **Getting to Know English Learners**
> Remember, ELs may apply their knowledge of cognates when they come across unfamiliar vocabulary words. (Refer to Chapter 2.)

In the remainder of this section we discuss some of the strategies we have found effective in vocabulary instruction.

Word Banks

Word banks are used to help students collect and review sight words. They can also be used as personal dictionaries. A word bank is simply a student-constructed box, file, or notebook in which newly discovered words are stored. Students review the words in their bank for use in their writing. In the early grades, teachers often collect small shoeboxes from local stores for this purpose. Students decorate the boxes to make them their own. In the upper grades, more formal-looking word banks—notebooks or recipe boxes—are used to give an "adult" appearance.
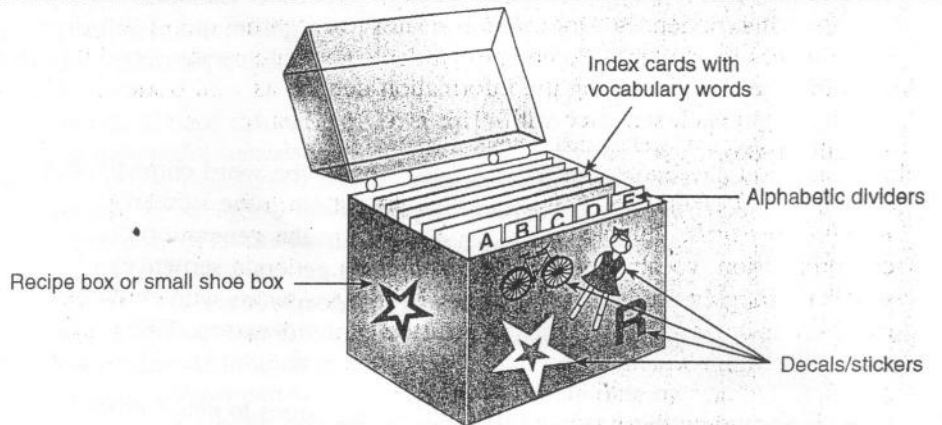
Alphabetic dividers can be used at all levels to facilitate the quick location of word bank words. Alphabetic dividers in the early grades help students rehearse and reinforce knowledge of alphabetical order. Figure 4.7 shows a sample word bank.

Specific Word Instruction

Specific word instruction can deepen students' knowledge of word meanings and, in turn, help them understand what they are hearing or reading (Johnson, 2001). It also can help them use words accurately in speaking and writing. Three ways of providing specific word instruction have been drawn from research evidence (National Reading Panel, 2000; Partnership for Reading, 2001): preteaching vocabulary, extended instruction, and repeated exposures.
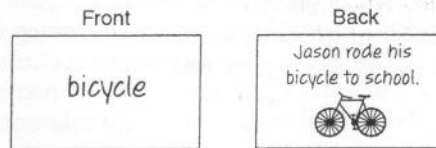
What Specific Word Instruction Looks Like in the Classroom. The Partnership for Reading, a federally funded collaborative effort of the National Institute for Literacy, the National Institute of Child Health and Human Development, and the U.S. Department of Education, published in 2001 a booklet titled *Put Reading First: The Research Building Blocks for Teaching Children to Read.* This document was compiled to help disseminate data from the 2000 report of the

Figure 4.7   A Word Bank

Index cards with vocabulary words

Alphabetic dividers

Recipe box or small shoe box

Decals/stickers

A word bank is a box in which children keep/file new words they are learning. The words are usually written in isolation on one side of the card, and in a sentence on the back of the card (usually with a picture clue).

Example:

Front	Back
bicycle	Jason rode his bicycle to school.

National Reading Panel, and covers the topics of phonemic awareness instruction, phonics instruction, fluency instruction, vocabulary instruction, and text comprehension instruction. In order to help you better understand what each of the three specific word instruction components might look like in the classroom, we include examples after each definition borrowed from the *Put Reading First* booklet.

Preteaching Vocabulary.   Teaching new vocabulary prior to students' reading of a text helps students learn new words and comprehend what they read.

AN EXAMPLE OF CLASSROOM INSTRUCTION

Preteaching Vocabulary*

A teacher plans to have his third-grade class read the novel *Stone Fox,* by John Reynolds Gardiner. In this novel, a young boy enters a dogsled race in hope of winning prize money to pay the taxes on his grandfather's farm. The teacher knows that understanding the concept of taxes is important to understanding the novel's plot. Therefore, before his students begin reading the novel, the teacher may do several