CHAPTER 2

Choosing Words to Teach

Consider the following list of words whose meanings were to be introduced in conjunction with a reading selection in a third-grade basal: *gym, recite, prefer, perform, enjoying, billions* (Farr et al., 2000). Think about the difference in the utility and familiarity of the words. For example, not only is *gym* most likely known by third graders, it also has a much more limited role in a literate repertoire relative to *prefer* and *perform*.

Why do you think these words were selected? One obvious reason for selecting words to teach is that students do not know the words. Although *recite, prefer, perform*, and *billions* may be unfamiliar to many third graders, *gym* and *enjoying* are likely known by most third graders. Familiarity does not seem to be the principle used to make the selection. What about importance or usefulness? Are the selected words useful for reading and writing? Would the words be important to know because they appear in other texts with a high degree of frequency? Some—but not all—of the words might be considered useful or important. So, the question remains: Why were the words selected? The purpose of this chapter is to consider what principles might be used for selecting words to teach.

WHICH WORDS TO TEACH?

The earliest attention to the kinds of words to be taught was Beck and McKeown's concept of word tiers, initially introduced in Beck and colleagues (1987), which became more prominent in Beck, McKeown, and Kucan's books, *Bringing Words to Life* (2002) and *Creating Robust Vocabulary* (2008). As we just described in Chapter 1, we conceptualized a three-tier

heuristic by considering that different words have different utility and roles in the language (Beck et al., 1987). Recall that we designated Tier One as words typically found in oral language and Tier Three consists of words that tend to be limited to specific domains (e.g., *enzyme*) or so rare that an avid reader would likely not encounter them in a lifetime (e.g., *abecedarian*). Tier Two comprises wide-ranging words of high utility for literate language users. These are words that are more characteristic of written language (e.g., *emerge*), and not so common in conversation (Hayes & Ahrens, 1988).

In this recent period of vocabulary research, other vocabulary scholars have provided input on the kinds of words best targeted for instruction. The approaches can be roughly divided into those researchers who, like Beck and McKeown, describe criteria for choosing words (Nation, 2001; Stahl & Nagy, 2006), and those who have developed procedures for identifying specific words (Biemiller, 2001, 2005; Hiebert, 2005).

First, let us consider those methods focused on objective procedures for identifying words. Biemiller (2005) developed a system for selecting words based on testing words from several levels of the living word vocabulary (LWV). The LWV was developed by Dale and O'Rourke (1979) to investigate students' actual word knowledge. The researchers did this by testing students through multiple-choice items at grades 4, 6, 8, 10, 12, and early college. In contrast, frequency counts are based on how often a word appears in a database, such as words in printed school materials. There are several problems with LWV: it is dated, and its methodology has been called into question (Hiebert, 2005; Nagy & Hiebert, 2011). But it is the only source available based on students' knowledge of words.

Biemiller and Slonim's (2001) methods involved testing words from the LWV's fourth-grade level and found that most of the words known by 80% of fourth graders were actually already known by children at the end of second grade. Then after more testing, the researchers identified optimal candidates for instruction as those words that 30–70% of children knew when tested and which thus seemed likely to be learned next. Biemiller and Slonim noted that their results indicated that words were learned in a roughly sequential order and interpreted this finding as offering a developmental view of the acquisition of vocabulary. Thus, given their view that word learning was a developmental matter, they suggested that teaching words in the order that they seemed to be acquired would be beneficial.

But the order of word learning is not developmental. Something that is developmental means that an individual must go through specific sequenced stages, such as the common example of walking before running. The sequence of learning the meanings of words does not reside in innate human development; that is, our brains are not wired to acquire words in

any given sequence. The order of learning words resides in children's environments and experiences: what they hear, see, are told, read, and the like.

Beyond the fact that there is no innate sequence, adhering to any sequence for learning words is not necessary because words are not related in a hierarchical way; that is, many words that support general language and literacy do not comprise an organized system in which certain words precede others conceptually. For example, if a child understands the concept of *stubborn*, he or she could learn *obstinate* before *headstrong* or *defiant* before *obstinate* and the like. (We note that a number of words in the content areas do have hierarchical relations, which as we already asserted should be dealt with in the course of dealing with the content in which they appear.)

Hiebert's (2005) approach for selecting words for instruction was based on frequency counts. So, as a reminder, let us talk briefly about what word frequencies are. Usually when people talk about word frequency, they are referring to a listing of words by their frequency of appearance in written language. The standard example for a long time was Carroll, Davies, and Richman's *Word Frequency Book*. Published in 1971, it was produced by examining a large collection of texts used in school through grade 12. Other similar resources exist, such as the more recent *Educator's Word Frequency Guide* (Zeno, Ivens, Millard, & Duvvuri, 1995). These resources list all the words from the texts they include in their corpus by the number of times they appear (their frequency) as well as at what grade levels.

We acknowledge that frequencies can provide some information, but some problems are inevitable when word frequency is the primary source for identifying words. For example, the words *work, works, worked*, and *working* are all separate entries, yet the meaning of those words is virtually the same. In contrast, a word that has different meanings is listed only once. For example, whether *bank* means financial institution, edge of a river, or angle of an airplane is not taken into account. *B-a-n-k* appears one time on the list, and its associated frequency represents all the different meanings. In other words, there is no way to get the frequency of the word *bank* meaning a financial institution. Moreover, the boundary between high and low frequency is an arbitrary one so that the low-frequency category includes both words that almost got into the high-frequency category as well as words that are truly rare (Nation, 2001).

Hiebert's (2005) goal was to identify words that are unknown to students in first through fourth grades, but that also appear in a significant portion of texts in grades five and above so that those words could be the targets of instruction. The goal to do that is certainly admirable. Hiebert selected the words in the texts used in the fourth-grade versions of three prominent standards-based tests and the National Assessment of Educational Progress on which to establish frequency counts. Specifically, she

categorized the words from her frequency data according to zones that correspond to bands of frequency. Zones 1 through 4 contain 5,586 words that Hiebert has designated for teaching in grades one through four. With instruction directed to Zones 1 through 4, students would have been taught about 92% of the words on the prominent tests.

An example of a difference between tiers and frequencies illustrates another problem of relying on frequencies. Most would agree that *breaking* is simply a form of *break*—a word that even toddlers are likely familiar with, and thus we would put it in Tier One. *Complicated*, on the other hand, is a rather sophisticated word, less common to children's oral language, and needs some explanation to communicate. Yet it is a useful word as it is likely to appear in many domains and circumstances—from describing television plots to theories of the galaxy! All this makes it a prototypical Tier Two word. Yet according to Carroll and colleagues' *Word Frequency Book* (1971), *break* and *complicated* have the same frequency count.

As the above example suggests, we would not recommend relying on frequency lists as the primary resource for selecting words to teach, although frequency can be one useful resource. Frequency lists can seem very tempting, because they are objective—gathered from actual data on use of words in the language. But this very fact is also why they should not be relied on. Frequency merely indicates how often a word appears in print compared to other words in the language. That fact does not exactly translate into how difficult a word is or even how useful it is to a user's repertoire.

Other scholars have taken an approach more similar to Beck and McKeown's, categorizing words as to their role and utility in the language and laying out guidelines for selecting words to teach. Stahl and Nagy (2006) approach the issue of which words and what kind of attention to devote to different words by using characteristics such as frequency, utility, and requirements for learning to create descriptive categories of word types. Two key categories that Stahl and Nagy assert merit significant attention are "high-frequency words" and "high-utility general vocabulary." Stahl and Nagy characterize high-frequency words as those that make up the bulk of words in any genre, spoken or written. This category is similar to our Tier One words. Stahl and Nagy suggest that many if not most students will be familiar with these words early in their school careers. However, given the importance of these words, Stahl and Nagy suggest providing many opportunities for students to deal with these words in context.

Stahl and Nagy's (2006) high-utility general vocabulary words, similar to our Tier Two words, are described as those that "may be uncommon in conversation but are part of the core of written language that students encounter in their texts . . . words you'd expect to be part of a literate person's vocabulary" (p. 61). They offer examples for the first nine letters of the

alphabet: *abolish, banish, chamber, deliberate, exceed, frequent, genuine, hospitable, initiative*.

Nation (2001) provides similar considerations about which words merit instruction, and, although his discussion is targeted to learning English as a second language, the constructs he presents are relevant for first-language learning as well. Nation identifies four kinds of vocabulary to consider when designing instruction: high frequency, academic, technical, and low frequency and points out that almost 80% of the running words in any text are high frequency. It is easy to see why high-frequency words constitute such a high percentage of running words in any text by considering the table below in which we list every 10th word of the highest 300 words in the language. It is also easy to see why these are not the words that differentiate students with high and low vocabulary knowledge or good and poor comprehenders (Cunningham & Stanovich, 1998; Hayes & Ahrens, 1988).

10. *the*	110. *our*	210. *land*
20. *of*	120. *think*	220. *four*
30. *and*	130. *because*	230. *need*
40. *your*	140. *things*	240. *let*
50. *up*	150. *number*	250. *times*
60. *other*	160. *name*	260. *sentence*
70. *could*	170. *under*	270. *knew*
80. *my*	180. *next*	280. *hear*
90. *water*	190. *looked*	290. *want*
100. *know*	200. *want*	300. *turned*

Such words would reside in our Tier One category, which includes words that are likely learned from everyday experiences.

Nation's (2001) category of academic words are those common across domains of academic texts, which typically make up about 10% of running words in adult texts. Here Nation cites Coxhead's *New Academic Word List* (2000) as a good database. Coxhead's list of 570 word families was drawn from a corpus of 3.5 million running words from academic journals and university textbooks in four broad academic areas: arts, commerce, law, and natural science. Both frequency and dispersion—the extent that words appear in several domains—were considered in selecting the words, such that all word families on the list occurred in all four academic areas and were used at least 100 times across the texts being analyzed. Nation views academic words as essential to teach because of their range of coverage over various types of text and the meaning they bring to a text. These words would overlap our Tier Two category.

The two other categories in Nation's (2001) scheme, technical words and low-frequency words, cover the remaining 10% of running words, with each approximated at 5%. Technical words are those closely related to a specific topic or subject area, but not so common beyond it. Nation's technical words are similar to our Tier Three words, and he has asserted, as we have, that teaching such words makes sense only when learning the specialized subject matter.

The approaches espoused by Stahl and Nagy (2006), Nation (2001), and Beck and McKeown all inherently view judgment as a key component, in that these approaches describe criteria for choosing words rather than procedures for identifying specific words. Despite the objective procedures in the systems proposed by Biemeiller and Hiebert (2005), each finally comes to require subjective judgment to overcome problems within their systems. Biemiller and Boote (2005) acknowledged this aspect in two ways. First, Biemiller and Boote discuss the lack of clear criteria for distinguishing teachable and too-hard words, saying that they are "left with testing and some uses of intuition for identifying word meanings for instruction" (p. 4). Second, they mention their research group's need to evaluate "word importance" to distinguish words that are most useful to learn. Hiebert also acknowledges the judgment component in discussing implications for teachers, for example, pointing out the relative utility of [the] words *checkpoint* and *cautiously* that appear in the same text (pp. 260–261).

We summarize the instructional implications of issues discussed in this section by noting that Biemiller and Hiebert (2005) would select a set of words that are generally of higher frequency, tend to be more concrete, and are often acquired from everyday experiences. We—like Stahl and Nagy (2006) and Nation (2001)—would consider the utility of words for use in both comprehension and composition as the priority. Such words are more abstract and associated with written language; thus, they are more unlikely to be learned through everyday language.

Moving from using everyday language to being a literate language user can be difficult. A term used by Corson (1985, 1995)—the *lexical bar*—underscores that point and also suggests why learning the vocabulary of written language is so important. According to Corson (1985), a barrier (i.e., lexical bar) exists between everyday meaning systems—the words in conversations—and the meaning system created by academic, literate culture, or book language. Academic success is possible, according to Corson (1995), only if learners cross the lexical bar. So if students are to become successful in academic life, they need to be able to get meaning from text, which in turn means being able to build meaning using the more sophisticated vocabulary of written language.

In the rest of this chapter, we focus on that sophisticated vocabulary, which we refer to as Tier Two words.

IDENTIFYING TIER TWO WORDS IN TEXTS

To get an idea of the process of identifying Tier Two words, consider an example. Below is the opening paragraph of a retelling of an old tale (Kohnke, 2001, p. 12) about a donkey that is under a magical spell that forces him to do the chores for a group of lazy servants. The story would likely be of interest to third and fourth graders.

> Johnny Harrington was a kind master who treated his servants fairly. He was also a successful wool merchant, and his business required that he travel often. In his absence, his servants would tend to the fields and cattle and maintain the upkeep of his mansion. They performed their duties happily, for they felt fortunate to have such a benevolent and trusting master.

The underlined words are those we identified as consistent with the notion of Tier Two words. That is, most of the words are likely to appear frequently in a wide variety of texts and in the written and oral language of mature language users. (Note: We chose this paragraph because there were so many candidate Tier Two words; however, most grade-level material would not have so many words in only one paragraph.)

One "test" of whether a word meets the Tier Two criterion of being a useful addition to students' repertoires is to think about whether the students already have ways to express the concepts represented by the words. Would students be able to explain these words using words that are already well known to them? If that is the case, it suggests that the new words offer students more precise or mature ways of referring to ideas they already know about. One way to answer the question is to think about how average third and fourth graders would talk about the concepts represented by the Tier Two words. We think that students would be likely to offer the explanations shown in the accompanying list.

Tier Two words	**Students' likely expressions**
merchant	salesperson or clerk
required	have to
tend	take care of
maintain	keep going

performed	did
fortunate	lucky
benevolent	kind

Adding the seven target words to young students' vocabulary repertoires would seem to be quite productive, because learning the words would allow students to describe with greater specificity people and situations with which they already have some familiarity. Note that these words are not simple synonyms of the familiar ones, however, instead representing more precise or more complex forms of the familiar words. *Maintain* means not only "keep going," for example, but also "to continue something in its present condition or at its present level." *Benevolent* has the dimension of tolerance as well as kindness.

SELECTING FROM A POOL OF WORDS

Now consider which of the words will be most useful in helping students understand the above paragraph. For the seven words noted there, our thinking is that *fortunate* is particularly important because the fact that the servants thought they were lucky is an important condition of the story. Similarly, *benevolent* plays an important role in setting up the story, as the servants appreciate their master's kindness and do not want to upset their pleasant living situation. If one other word were to be selected, a good choice would be *merchant*. *Merchant* is a word that comes up in fourth- and fifth-grade social studies textbooks in discussions of colonization of the Americas (e.g., "European merchants were eager to locate new resources like tobacco and indigo, which could be found in the colonies"; or "Colonial merchants were dismayed by the taxes on English goods, which meant higher prices for their customers but no more profit for themselves"). The other candidate words—*tend, required, performed*, and *maintain*—are also words of strong general utility, and the choice of whether to include any more words is based solely on considering how many words one thinks students can usefully handle.

■ YOU TRY IT ■

Below is another excerpt from the tale about the donkey under the magical spell described above (Kohnke, 2001, p. 12). You might find it useful to try your hand at identifying Tier Two words. You will get to see our choices below the excerpt, so that you can compare your selections with ours.

> The servants would never comment on this strange occurrence [finding the kitchen clean even though none of them were seen doing the cleaning], each servant hoping the other had tended to the chores. Never would they mention the loud noises they'd hear emerging from the kitchen in the middle of the night. Nor would they admit to pulling the covers under their chins as they listened to the sound of haunting laughter that drifted down the halls to their bedrooms each night. In reality, they knew there was a more sinister reason behind their good fortune.

Which words did you select? Trying to be all-inclusive, selecting any words that might fit Tier Two, we chose *comment, occurrence, tended, mention, emerging, admit, haunting, reality, sinister*, and *fortune*. We considered them Tier Two words as we viewed them as fairly "general but sophisticated words." That is, they are not the most basic or common ways of expressing ideas but they are familiar to mature language users as ordinary as opposed to specialized language. The concepts embodied in each word are ones that students already have some understanding of, as shown in the accompanying list.

Tier Two words	**Students' likely expressions**
comment	something someone has to say
occurrence	something happening
tended	took care of
mention	tell
emerging	coming out
admit	to say you did something
haunting	scary
reality	being real
sinister	scary
fortune	luck

Now, the notion of tiers of words is not a precise one, and the lines between tiers are not clear-cut, so your selection may not match ours. Thinking in terms of tiers is just a starting point—a way of framing the task of choosing candidate words for instruction (see the accompanying box). Even within Tier Two, some words will be more easily familiar and some will be more useful than others. For example, our hunch is that *admit, reality*, and *fortune* are likely known to most fourth or fifth graders; that *tended* is not often used in a way that is key to understanding; and that fifth graders may already associate *haunting* with scary things—a Halloween context—which is fitting for this story. Thus we ended up with *comment, occurrence, mention, emerging*, and *sinister*. We judged the first four of these to be most

useful across a range of contexts, and we chose *sinister* because it is a strong word with emotional impact that is used in literature to describe fictional characters as well as in nonfiction, such as when describing a group's sinister plans to invade another's territory.

SOME CRITERIA FOR IDENTIFYING TIER TWO WORDS

- Importance and utility: Words that are characteristic of written text and appear frequently across a variety of domains. For example, *categorize* ranges broadly, as most things can be categorized. Everything from words to kinds of governments can be categorized. Similarly, *technique* is widely useful, such as someone's technique for remembering telephone numbers or a city's technique for collecting parking tickets.
- Conceptual understanding: Words for which students understand the general concept but provide precision and specificity in describing the concept. For example, students understand that things can be in the way, but *hindrance* is a sophisticated way to express that idea. Similarly, that there is enough of something is recognized by young children, but that there is *sufficient* is a more mature way of expressing the idea.
- Instructional potential: Words that are more than one-dimensional, and offer a variety of contexts and uses to explore. For example, *aid* doesn't mean much more than "help"; in contrast, *establish* is similar to *start*, but it also means "to put on a firm basis," as in to establish a business or form of government or to establish a reputation. *Establish* also means "to put beyond doubt," as in to establish a person's innocence.

SELECTING WORDS FROM INSTRUCTIONAL TEXTS ACROSS DOMAINS

Here we want to raise an issue about the dilemma that teachers of upper elementary students face in selecting words to teach. The curricular resources for these students present vocabulary not only in reading but also in math, science, social studies, and spelling. For example, consider the table below. The lists of words come from materials sent home with one author's great-nephew who is in the sixth grade. Parents and caregivers are provided with the list of spelling words and lists of the science, social studies, math, and

reading words with definitions. The expectation is that students will study the words so they can do well on chapter or unit tests.

Spelling	Science	Social studies	Math	Reading
musician	*chloroplasts*	*monsoon*	*perimeter*	*mournfully*
politician	*cell wall*	*deity*	*circumference*	*emerge*
historian	*nucleus*	*reincarnation*	*composite*	*sodden*
comedian	*chromosomes*	*caste*	*number*	*sporadic*
novelist	*DNA*	*artisans*	*prime number*	*vanquished*
scientist	*genes*	*raja*	*prime*	*douse*
tenant	*dominant*	*export*	*factorization*	*leaped*
student	*recessive*	*import*		*flung*
patient		*epic*		*swerved*
resident		*meditating*		*dredge*
				traitorous

Looking at the lists raises some important questions: Are these really vocabulary words? Are the meanings of the words worth learning because they are useful in a variety of contexts? Will teaching the meanings of the words contribute to students' verbal functioning? Let's consider the potential of each list.

The spelling list includes words that foreground spelling patterns and suffixes that indicate noun forms, specifically people. For a sixth grader, the meanings of the words are not difficult to understand, and teachers can gauge student understanding quickly as the words are pronounced and introduced and provide explanations as needed. Instruction does not need to be focused on word meanings (vocabulary) but on patterns in word structure (spelling). Nor does practice and review of meanings need to be incorporated.

The words in the science list are quite different. We would label these as Tier Three words, words that are limited to a very specific topic. The words on the science list comprise two clusters of words that describe particular concepts: genetic inheritance, including *chromosomes, DNA, genes, recessive*, and *dominant*; and cell structure, including *chloroplasts, cell wall*, and *nucleus*. The instruction for these kinds of words would rightly focus on building content knowledge rather than vocabulary knowledge. The danger here is reducing content knowledge to lists of isolated words. Nagy and Townsend (2012) emphasized this point, explaining that students need repeated opportunities to practice such words in authentic contexts "in

which they both garner and support meaning of technical or theoretical ideas" (p. 96).

Like the science words, the social studies words are important for understanding a well-defined topic; in this case, aspects of the cultural, economic, and social life of ancient India. Although some of the words (such as *import* and *export*) can be used in a variety of contexts, the other words are quite specific to a social studies unit on the history of India. We would label these as Tier Three words. Instruction for these words would involve engaging students in developing an understanding of aspects of life in ancient India rather than focusing on the meanings of individual words.

The math words are also Tier Three words. They describe very specific mathematical features and actions. Learning the meanings of the words is not the point. Rather, students need to recognize the concepts and procedures that the words refer to when they encounter them in word problem contexts.

The words on the reading list come from three chapters of a novel that the sixth graders were reading. This list provides the richest source of Tier Two words, words that students can use in a variety of contexts. We would provide instructional attention and time for students to learn: *mournfully, emerge, sodden, sporadic, vanquished, chaos*, and *constriction*. These words are multidimensional and have high potential for students to develop rich representations. They can be used in a variety of contexts. They also provide the kind of precision and specificity that would allow students to provide rich descriptions and explanations. Four of the words—*emerge, sporadic, chaos*, and *constriction*—are clearly academic words in that they are likely to appear in expository texts as well as in narratives.

In an ideal world, teachers would be aware of the words on all the lists for a given time period and would design instructional activities to include words from across the lists when possible. For example, if *sodden* were one of the words selected for instruction, students could be asked to explain why *sodden* might be used in describing the effects of a monsoon. Or if *constriction* were selected for instruction, students could be asked to describe how the caste system *constricted* opportunities for many people in India.

The important point that we're getting at here is that teachers need to make decisions about how to deal with the words students are expected to "learn" in a given time period. Some word meanings can be introduced or reviewed quickly and not given sustained attention. Some words represent concepts that need to be developed as part of knowledge about topics within a specific content domain, rather than isolated, defined, and placed in novel contexts. For sustained vocabulary development, teachers should

opt for those words that will provide students with the most leverage—Tier Two words. Those are the words that should be the focus of the kind of instructional attention we describe in the following chapters.

CONSIDERATIONS BEYOND TIER TWO

There is nothing scientific about the way words are identified for attention in school materials. Some words are obvious candidates, such as selecting the word *representation* for a social studies unit on the American Revolutionary War era. But beyond the words that play major roles, choices about what specific set of words to teach are quite arbitrary. Teachers should feel free to use their best judgment, based on an understanding of their students' needs, in selecting words to teach. They should also feel free to treat words in different ways. As Chapters 3, 4, and 5 will show, Tier Two words are not only words that are important for students to know, they are also words that can be worked with in a variety of ways so that students have opportunities to build rich representations of them and of their connections to other words and concepts.

In many texts, however, there may be several unfamiliar words that do not meet the criteria for Tier Two words but which nevertheless require some attention if students are to understand a selection. Consider the following excerpt from the short story "My Father, the Entomologist" (Edwards, 2001, p. 5):

> "Oh, Bea, you look as lovely as a longhorn beetle lifting off for flight. And I must admit your antennae are adorable. Yes, you've metamorphosed into a splendid young lady."
>
> Bea rolled her eyes and muttered, "My father, the entomologist."
>
> "I heard that, Bea. It's not nice to mumble. Unless you want to be called a . . . Mumble Bea!" Bea's father slapped his knee and hooted. Bea rolled her eyes a second time.
>
> The first day of fifth grade, and my father tells me I look like a longhorn beetle. Bea shuddered at the thought. She absolutely detested bugs. Why does Dad have to be obsessed with insects? She wondered. Why not football or golf like most fathers? The answer was simple. Bea's dad was weird. His weirdness made the whole family weird. And he had made Bea the weirdest of all when he named her Bea Ursula Gentry . . . B.U.G.
>
> Suddenly, Bea felt angry. She flew into the kitchen where her father sat reading *Insectology*. She hurled her backpack onto the table.

"You know what, Dad?" she asked, tugging on one of her pigtails. "These are not antennae! Your bumper sticker, 'Have you hugged a bug today?' is not cool! And I despise eating in the dining room with all those dead bugs pinned to the walls!"

With fourth- and fifth-grade students in mind, we have divided the 12 underlined words from the story into the following three categories:

longhorn beetle	*obsessed*	*splendid*
antennae	*detest*	*shuddered*
metamorphosed	*despise*	*mumble*
entomologist	*muttered*	*hurl*

Most teachers would recognize that their students would not be familiar with the words in the first column; however, those words can be dealt with very quickly. *Longhorn beetle* does not call for attention—students will understand it as a type of insect, and more knowledge is not needed to understand the story. *Antennae* and *entomologist* are needed to understand the situation the author uses to set up the story, but the two words can be quickly described as "those things that stick out from an insect's head" and "a scientist who studies insects," respectively. More precise information is not required for this selection.

Metamorphosed can be explained as simply "changed or grown," but to get the humor intended here, the information needs to be given that it is the type of change that certain insects go through, such as when a caterpillar changes into a butterfly. But, again, no more precision is required, and this is not the place to go through the elaborate explanation about the process or how it occurs. That should occur in a science unit about insects.

The words in the next two columns have more general applications and are consistent with Tier Two words. The words in the second column—*obsessed, detest*, and *despise*—are most substantively related to the plot of the story, which is about a father who is obsessed with bugs and his daughter who detests and despises them. *Detest* and *despise* create a kind of "twofer" situation, in that they are very close synonyms that could be introduced together and used interchangeably.

The rest of the words do not play key roles in the story, nor is their unfamiliarity likely to interfere with comprehension. So, which other words are attended to, if any, is simply a matter of choice and convenience. That is, a decision as to the number of words taught might be made on the basis of how many a teacher wants to make room for at the moment. Factors in this decision may include, for example, how large the current vocabulary

load is in the classroom, the time of year, and the number and difficulty of other concepts presently being dealt with in the curriculum.

Assume that there is room for several more words from this story. It might be convenient to teach *splendid* and *shuddered*, because they could take advantage of concepts already established for the story. *Shuddered* fits well, since something that is detested might well make one shudder. *Splendid* is also a good fit, as in "Bea's dad thinks bugs are splendid, but Bea detests them" or "If you're obsessed about something, you might think it's splendid." These two words would also be favored because they have a bit more dimension to them than *mumble, muttered*, or *hurl*. This is not to say that *mumble, muttered*, or *hurl* should not be taught but simply that, presented with the choice of words to work with, *splendid* and *shuddered* seem to lend themselves to a wider diversity of possible uses.

WHAT IF THERE ARE NOT ENOUGH WORDS?

Now let us consider a text that does not seem to offer much for vocabulary development because all of the words in the text are familiar to students. An approach in such a case could be selecting words whose concepts fit in with the story even though the words do not appear. For example, if the story features a character who is a loner, introduce the words *hermit, isolated*, or *solitary*; if a problem is dealt with, present it as a *dilemma* or *conflict*; if a character is hardworking, consider if he or she is *diligent* and *conscientious*. Think in terms of words that coordinate with, expand, or play off of words, situations, or characters in a text.

Bringing in words whose concepts fit with a story is especially salient when young children are just learning to read and there are only the simplest words in their text. Consider a story in which two children (Pam and Matt) try on a number of silly hats, some of which are very big and two of which are exactly alike. A number of words came to mind, and we chose *absurd, enormous*, and *identical*. Next we suggest how those words might be introduced to young children:

- In the story, Pam and Matt had very, very silly hats. Another way to say that something is very, very silly is to say that it is absurd. When something is absurd, it is so silly it's hard to believe.
- Some of the hats that Pam and Matt wore were so big that all you could see were their feet. Another way to say that something is very, very big is to say that it is enormous. *Enormous* means "very big—very, very big."

- Pam and Matt put on red hats that were almost exactly alike. A way to say that two things are exactly alike is to say that they are identical. *Identical* means "exactly alike."

Stories for older students have many concepts and ideas that are described and explained, but not necessarily labeled. This offers opportunities to connect an event or idea from the story to a potentially useful word. For example, a story about Devin, a boy who is getting ready for his first day at a new school, provides a context for introducing the words *foreboding* and *solace*.

- The boys in Devin's new neighborhood have teased him about the dangers at their school. Devin is terrified and thinks something bad will happen. Another way to describe the way Devin feels is to say that he has a foreboding. If you have a foreboding, you feel like something very bad is going to happen.
- Devin feels better when his big brother says he will walk with him to school. Another way to say that is that his brother is a solace to him. Someone who is a solace comforts you and makes you feel less frightened and sad.

AN EXAMPLE FOR OLDER STUDENTS

The examples provided thus far were drawn from texts for elementary students. Although the same principles apply to selecting words from texts for students in middle and high school, they may play out a bit differently. Thus, we present a discussion of the words that might be selected from Agatha Christie's "In a Glass Darkly" (1934), a story that is likely to be of interest to students in eighth or ninth grade. It is a rather brooding tale that moves from a murderous premonition to unrequited love, jealousy, and near tragedy before resolving happily. The story begins as the narrator, while staying with a friend, sees a vision of a man strangling a woman. The woman turns out to be his friend's sister, Sylvia, with whom he falls in love. But Sylvia is engaged—to the man he saw in his vision. He tells her of the vision, and she breaks her engagement. For years, the narrator is unable to tell her of his feelings for her. Finally, love is revealed and they marry. But he is deeply jealous, a feeling that results in his nearly strangling his wife—until he notices in the mirror that he is playing out the scene of his premonition.

The language of the story is sophisticated but not particularly difficult. Most words will likely be at least passingly familiar to many readers in eighth or ninth grade. However, many of the words are probably not of high frequency in the students' vocabularies, and thus an opportunity presents itself for students to work with these words and gain fluency with them. Here are the 30 words from the story that we identified as Tier Two words:

essential	*appreciated*	*altered*
intervened	*decent*	*well-off*
attractive	*rambling*	*prospect*
valet	*throttling*	*complication*
gravely	*upshot*	*leisure*
disinterested	*scornfully*	*devoted*
absurdly	*endangering*	*inevitable*
entrenched	*gloomy*	*sullen*
savage	*unwarranted*	*abuse*
endurance	*revelation*	*sobering*

Of the 30 words, we decided to focus on 10 of them: *essential, altered, well-off, devoted, entrenched, inevitable, sobering, revelation, upshot*, and *disinterested*. Ten words may be a lot to develop effectively for one story, but we see it as a workable number because many of them will already be familiar. Also, two of the words could be introduced rather briefly with little or no follow-up work. These are *altered*, which could be defined simply as "permanently changed," and *well-off*, which could simply be given the synonym *wealthy*. The reason for attention to these two words is that they could cause confusion at the local level in the story if not understood.

Two other words were also chosen because they could cause confusion in a part of the story. These are *upshot* and *disinterested*. The narrator talks of the upshot of his decision to tell Sylvia that he saw a vision of her fiancé choking her. Because of the context and feel of the story, we thought *upshot* might be interpreted as some sort of physical violence, instead of simply "the result of." The word *disinterested*, meaning "not being involved in a particular situation," is often confused with *uninterested*, meaning "not interested," and the story provides a good opportunity to introduce that distinction.

Five words seem to convey the mood and emotional impact of story developments: *devoted, entrenched, inevitable, sobering*, and *revelation*. And the word *essential* was chosen because "one essential detail" turns out to be a key plot device—that is, in his premonition, the narrator notices a scar on the left side of the choker's face. The essential detail he fails to account for

is that he is seeing this in a mirror, so the scar is actually on the right. The six words can be used to describe the plot as follows: The narrator is *devoted* to Sylvia, although *entrenched* in a jealousy that causes *inevitable* problems. Only a *sobering revelation* (that *essential* detail) saves him, his marriage, and his wife.

A couple of points should be emphasized here. The words were selected not so much because they are essential to comprehension of the story but because they seem most closely integral to the mood and plot. In this way, the vocabulary work provides both for learning new words and for enriching understanding of literature. This decision was made possible because there was a large pool of words from which to choose. Sometimes choices are more limited, and sometimes the best words are not so tied to the story. In such cases, a decision might be made to select words that seem most productive for vocabulary development despite their role in the story.

For the six words we consider to be most important to teach, some characteristics of the words themselves also drove our selections. *Sobering* was selected because its strongest sense for students might be as the opposite of drunk. So, the context of the story provides a good opportunity to overcome that and introduce its more general sense. The others, *essential, devoted, entrenched, inevitable*, and *revelation*, have wide potential for use and are not limited to specific situations or stereotypical contexts. Yet, they seem to be strongly expressive words that can bring emotional impact to contexts in which they are used.

AN EXAMPLE FOR YOUNG CHILDREN

We turn now to selecting words to enhance the vocabulary repertoires of young children—those who are just learning to read. We make two immediate distinctions between vocabulary work with students in upper elementary, middle, and high school, and work with students in the earliest grades, typically kindergarten though early second grade. The first is that we consider the best sources for new vocabulary to be trade books that teachers read aloud to children rather than the books children read on their own. In Chapter 4 we will make our case for that position.

The second distinction is that in contrast to introducing words before a story, in our work with young children we have found it most appropriate to engage in vocabulary activities after a story has been read. There are two reasons we decided that vocabulary activities for young children should occur after a story. First, if a word is needed for comprehension, since the teacher is reading the story he or she is available to briefly explain the word at the point in the story where it is needed (e.g., "A *ukulele* is a

kind of guitar"; or "When ducks *molt*, they lose their feathers and can't fly until new ones grow"). Second, because the words that will be singled out for vocabulary attention are words that are very likely unfamiliar to young children, the context from the story provides a rich example of the word's use and thus strong support for the children's initial learning of the word.

The basis for selecting words from trade books for young children is that they are Tier Two words and words that are not too difficult to explain to young children. Here, we present our thinking for selecting three words for instructional attention from *The Popcorn Dragon* (Thayer, 1953), a story targeted to kindergartners.

In our review of *The Popcorn Dragon* (Thayer, 1953) for Tier Two candidate words, we first identified the following seven: *accidentally, drowsy, pranced, scorched, envious, delighted*, and *forlorn*. From the pool of seven, we decided to provide instruction for three: *envious, delighted*, and *forlorn*. We considered three issues in making our choices. First, we determined that the concept represented by each word was understandable to kindergartners; that is, 5-year-olds understand the concepts of wanting something someone else has (*envious*), being very happy (*delighted*), and being very sad (*forlorn*). Second, it is not too difficult to explain the meanings of those words in very simple language, as illustrated in the previous sentence! And, third, each word has extensive possibilities for use. In particular, the words are found in numerous fairy tales; that is, there is often some character who is *envious* of another, and there are characters who are *delighted* or *forlorn* about the turn of events. The words, however, are not restricted to make-believe; they can all be used in describing people in common situations.

We found the other candidate words—*pranced, accidentally, scorched*, and *drowsy*—interesting and potentially useful, but we saw *scorched* and *pranced* as narrower than the ones we chose, and *drowsy* and *accidentally* as not quite so interesting. We hasten to make the point that this is all a matter of judgment. The final decisions about which words to teach may not be as important as thoughtful consideration about why to teach certain words and not others.

WHAT ABOUT WORDS BEING ON GRADE LEVEL?

A concern that surfaces in deciding which words to teach is whether words are appropriate for students at certain grade levels. Key to this concern is to understand that no formula exists for selecting age-appropriate vocabulary words despite lists that identify "fifth-grade words" or "seventh-grade words." There is simply no basis for determining which words students

should be learning at different grade levels. For example, that *coincidence* is an "eighth-grade word" according to a frequency index means only that most students do not know the word until eighth grade. It does not mean that students in seventh or even third grade cannot learn the word or should not be taught it.

There are only two things that make a word inappropriate for a certain level. One is not being able to explain the meaning of a word in known terms. If the words used to explain a target word are likely unknown to the students, then the word is too hard. The other consideration for word selection is that the words be useful and interesting—ones that students will be able to find uses for in their everyday lives. Of course, this is a matter of judgment, best decided by those who know the individual students. Work we have done with kindergarten and first-grade children shows that sophisticated words can be successfully taught to young children. For example, kindergartners readily applied *nuisance* to disruptive classmates, and understood what was happening when a *commotion* occurred in the hall; first graders could easily discern *argumentative* peers from those who were more collaborative and congenial!

SUMMARY

In evaluating words as possible candidates for instruction, here are three things to keep in mind:

1. How generally useful is the word? Is it a word that students are likely to meet often in other texts? Will it be of use to students in describing their own experiences?

For example, students are likely to find more situations in which to apply *typical* and *dread* than *portage* and *brackish*.

2. How does the word relate to other words, to ideas that students know or have been learning? Does it directly relate to some topic of study in the classroom? Or might it add a dimension to ideas that have been developed?

For example, what might knowing the word *hubris* contribute to a middle school student's understanding of the battles at Lexington and Concord, which set the Revolutionary War in motion?

3. What does the word contribute to a text or situation? What role does the word play in communicating the meaning of the context in which it is used?

A word's meaning might be necessary for understanding a text. Or understanding its meaning might allow an enriched insight about the situation being presented, such as in the case of *absurd, enormous*, or *identical* as words to describe a variety of hats. Keep in mind that there is no formula for selecting age-appropriate vocabulary words despite lists that identify "fifth-grade words" or "seventh-grade words." As long as the word can be explained in known words and can apply to what students might talk or write about, it is an appropriate word to teach. We provide compelling evidence for this claim in Chapter 4, which focuses on the success of young children in learning sophisticated words.

YOUR TURN

We invite you to use what you have learned in this chapter to make some decisions about which words you will teach.

1. Select a text that your students will be reading. It can be a story, or an excerpt from a chapter book or novel, or a social studies textbook.
2. List all the words that are likely to be unfamiliar to students.
3. Analyze the word list:
   - Which words can be categorized as Tier Two words?
   - Which of the Tier Two words are most necessary for comprehension?
   - Are there other words needed for comprehension? Which ones?
4. On the basis of your analysis, how will you deal with the words?
   - Which will need only brief attention?
   - Which will you give more elaborate attention to?

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