CHAPTER 1

Vocabulary as a Key to College and Career Readiness

Succeeding in school, and in life beyond school, requires that students develop rich and precise vocabularies. We recognize this as true when, as adults, we are judged by the "quality" of our conversational vocabulary. Developing strong vocabulary knowledge is even more important for success in disciplinary learning. As Phythian-Sence and Wagner (2007) explain, "Acquiring the vocabulary we use for thinking and communicating is a linguistic achievement of nearly incomprehensible importance and complexity." Learning the content of disciplines such as science, mathematics, history/social studies, literature, and the humanities affords students new opportunities and challenges with language as they learn.

A significant challenge is that many of the terms students encounter are ones they have never heard spoken, and the concepts are often new and complex. In general, these terms are what we refer to as *academic vocabulary*. In some cases, students encounter these terms in several of the classes they take—terms like *analyze*, *representation*, *boundary*, and *resources*. Many other terms are only encountered when students read or discuss particular content; these are referred to as *domain-specific vocabulary*. Both of these types of vocabulary are developed best when teachers draw attention to them directly, guiding students in identifying and learning these words and phrases. As Nagy and Townsend (2012) explain in their article "Words as Tools: Learning Academic Vocabulary as Language Acquisition," "We use the metaphor of 'words as tools' to reflect our understanding that instruction in academic vocabulary must approach words as means for communicating and thinking about disciplinary content, and must therefore provide students with opportunities to use the instructed words for these purposes as they are learning them" (p. 91).

Vocabulary deserves our attention for many reasons besides those mentioned above. It is worth noting that the English language is distinguished from other languages by the total number of words it contains, and that this number is regularly

expanding. According to estimates, the German language has a vocabulary of about 185,000 words, Russian has about 130,000, and French has fewer than 100,000. By comparison, English has well over half a million words. As Richard Lederer explained, "One reason English has accumulated such a vast word hoard is that it is the most hospitable and democratic language that has ever existed. English has never rejected a word because of its race, creed, or national origin. Having welcomed into its vocabulary words from a multitude of other languages and dialects, ancient and modern, far and near, English is unique in the number and variety of its borrowed words" (Lederer, 1991, p. 22).

Academic Vocabulary: A Challenge for Students

Students confront new academic vocabulary in each course they take; they must use these terms to identify, describe, and explain the key concepts and perspectives they encounter. Because each subject requires knowing a large number of content-carrying vocabulary terms, this is a significant challenge. Also, many terms students may understand in one context have specific and different meanings when encountered in different content areas. (For example, the term *representation* used in mathematics has quite a different meaning from the same term used in government or scientific contexts.) The large number and variety of academic terms within each discipline, and the range of academic terms students need to know across the courses they take, means that students must regularly attend to vocabulary and develop strategies for understanding and retaining the terms. In this process, many students become overwhelmed by the discipline-specific language—both the vocabulary and the more abstract and formal grammar through which ideas are communicated—and never acquire these tools that are essential to successful learning.

The Importance of Vocabulary for Comprehension

Vocabulary knowledge is a critical component of reading comprehension. According to Nagy and Scott (2000), 80% of comprehending informational text is tied to understanding the vocabulary. This close relationship between word knowledge and comprehension has been well established by researchers (Flood, Lapp, & Fisher, 2003; Graves, 2006; Pressley & Allington, 2014). In addition, researchers have also noted that the differences in students' vocabularies affect their achievement on standardized tests. Nagy and Herman (1984) reported that a 6,000 word gap separated students scoring at the 25th percentile from those at the 50th percentile from grades 4 to 12. The increasing numbers of English learners (ELs) in

our schools also highlights the importance of giving specific attention to helping students expand their vocabularies for academic success.

It is no wonder that the Common Core State Standards for English Language Arts and Literacy in History/Social Studies, Science, and Technical Subjects (CCSS; National Governors Association [NGA] & Council of Chief State School Officers [CCSSO], 2010a) emphasize learning academic vocabulary. Students must know the specific terms used in the disciplines to understand the content they are learning. And part of the rationale for the CCSS emphasis is that there is a fairly large gap (almost a 2-year difference) between the level of vocabulary and reading required in high school subjects and what students encounter and need to use to succeed in college and the workplace.

The Teacher's Role and Responsibility

Many secondary teachers recognize the importance of helping students learn discipline-specific vocabulary and call attention to some of the terms they know students will need to use as part of their instruction. As Graves (2004) explains:

> Vocabulary instruction has always been an interest of middle and secondary school teachers, probably because they recognize its importance and are familiar with procedures for teaching vocabulary. For the most part, however, the vocabulary instruction that adolescents receive has been less comprehensive and less systematic than it could be, more often than not consisting solely of teaching the meanings of a small number of difficult words that come up in the selections students are reading. (p. 443)

Nagy and Townsend (2012) reinforce this perspective in their review of vocabulary research. They write, "Our review is shaped by our perceptions of the instructional context: K–12 vocabulary instruction in the United States seldom achieves the quality and intensity necessary to bring students not already familiar with academic language to the point of ownership of the instructed words" (p. 92).

Researchers who have studied effective vocabulary instruction often point to this lack of systematic instruction in academic vocabulary beyond the level of teaching a small set of individual words (Fisher & Frey, 2010; Gersten, Dimino, Jayanthi, Kim, & Santoro, 2010). While this basic approach to vocabulary instruction is important so that students acquire some of the key terms in each discipline they study, it is not adequate to support the large number of words they will encounter in their middle and high school courses. Too many concepts and words exist in most disciplinary courses for teachers to provide direct instruction of all the terms. What students require is better strategies for building their academic vocabularies so they can master the much larger number of words and phrases they will encounter and know how to use them appropriately in disciplinary contexts.

Students benefit from a more systematic approach to learning the vocabulary of their academic world. They need grounding in the ways that context functions to reveal the meaning of terms in specific situations in order to attend closely to the language they read and hear. In addition, students' vocabulary awareness increases substantially when they learn how to use morphology—identifying the key meaning-carrying parts of whole academic terms that are generally formed from Greek and Latin roots (Nagy & Townsend, 2012; Templeton, 2012). Most important, students need to have their interest in words and language nurtured by teachers and to be encouraged to hear and read from a wide variety of informative, well-written materials. Wide reading is one of the best ways for students to increase their vocabularies.

Research with college freshmen underscores the importance of helping students develop word-learning strategies. For example, Francis and Simpson (2003) conducted a study with two groups of college freshmen, one group scoring above grade level and the other group scoring below. Neither group was adequately prepared to learn vocabulary on their own; the students reported that the only way to learn new terms was by memorizing lists of words. Both groups scored poorly when asked to incorporate vocabulary meaningfully in their writing. Habits such as these do not serve students well. In recent decades, much of the text used in college and career settings has increased in complexity. College professors assign more readings from periodicals and primary sources than ever before (Milewski, Johnsen, Glazer, & Kubota, 2005) and often simply assume that students can comprehend them.

Students with a strong foundation in strategies for understanding and learning new and important terms will continue to expand their vocabularies; they will enjoy words and language more and feel confident in experimenting with language. Teachers play a critical role by establishing classrooms in which words are made interesting and language explorations occur regularly. Teachers also support vocabulary learning by reading aloud to students from a wide variety of informative, well-written materials. And because wide reading is one of the practices that most helps students to increase their vocabularies, providing interesting materials and giving students time to read is valuable.

It is also important that teachers draw on their students' linguistic reserves. Many of our immigrant students, especially those with Latin languages, need to be reminded to use their knowledge in their first languages and apply that knowledge to new terms in their second language. In some domains, nearly 70% of the academic terms have Latinate roots (Scott, Miller, & Finspach, 2012). Teachers who encourage students to compare and contrast ways of identifying and labeling ideas and concepts across languages instill curiosity in their students about how language functions in describing particular attributes and perspectives.

Perhaps understandably, most secondary teachers focus their attention on the content they teach more than on the tools and strategies they can teach to students to help them learn more efficiently and deeply. Interdisciplinary attention to learning strategies has not been strong in most middle and high schools. In this book we hope to bridge some of these divisions and provide a foundation for teachers to think and plan together for more consistent attention to vocabulary instruction. One theme we develop is the importance of teacher collaboration in creating an inviting context for language development and a consistent approach to vocabulary teaching and learning.

The Approach within the CCSS

The CCSS define literacy development as a shared responsibility of teachers across the content areas—not just in literature courses. The introduction to the CCSS makes this clear:

> The Standards insist that instruction in reading, writing, speaking, listening, and language be a shared responsibility within the school. . . . Part of the motivation behind the interdisciplinary approach to literacy promulgated by the Standards is extensive research establishing the need for college and career ready students to be proficient in reading complex informational text independently in a variety of content areas. (NGA & CCSSO, 2010a, p. 4)

The CCSS prioritize the reading and learning of content in history/social studies, science, and technical subjects in addition to traditional literature. The Anchor Standards for Vocabulary Acquisition and Use state that students should be able to do the following:

4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases by using context clues, analyzing meaningful word parts, and consulting general and specialized reference materials, as appropriate.
5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
6. Acquire and use accurately a range of general academic and domain-specific words and phrases sufficient for reading, writing, speaking and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when encountering an unknown term important to comprehension or expression. (NGA & CCSSO, 2010a, p. 25)

In addition, the content standards for grades 6–12 provide specific guidelines for the learning of disciplinary or domain-specific terms. Figure 1.1 shows the standards for grades 9 and 10.

Reading Standards for Literacy in Science and Technical Subjects

Standard 4: Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to *grades 9–10 texts and topics*. (CCSS.ELA-Literacy.RST.9–10.4)

Reading Standards for Literacy in History/Social Studies

Standard 4: Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social studies. (CCSS.ELA-Literacy.RH.9–10.4)

FIGURE 1.1. CCSS vocabulary-specific standards for literacy in science and history/social studies (grades 9 and 10).

Defining Academic Vocabulary

The more attention one pays to vocabulary, the more variety of terms one encounters. Readers of this book will want to distinguish between the specific uses of terms such as:

Content-area vocabulary
Academic vocabulary
Disciplinary vocabulary
Domain-specific vocabulary
General academic vocabulary
Technical vocabulary
Tier One, Tier Two, and Tier Three vocabulary
Working vocabulary

Academic vocabulary is fundamentally distinguished from conversational vocabulary as language that is not characteristic of informal and personal communication, but that reflects school-privileged knowledge. Academic vocabulary is learned through reading and writing and exploring new topics, often with a teacher's guidance. While identifying the vocabulary demands in content areas is important, we should also make a finer differentiation between general academic and domain-specific vocabulary, because the tasks involved in learning and using these terms are different.

General Academic Vocabulary

General academic terms are used across many contexts, and students are much more likely to encounter them as they read and listen. Because they are not used in everyday

language, these terms deserve attention. When teachers focus on them, this pays off for students over the long term. Students will find these words in several content-area classrooms—especially in science and mathematics, but also in literature.

Domain-Specific Vocabulary

In contrast to general academic terms, domain-specific terms are found in much more limited contexts. They are also more likely to be highlighted and repeated frequently in content-area texts and resource materials. These are often the terms disciplinary teachers highlight and then require students to use in their speaking and writing. It is not uncommon for one chapter of a textbook or one section of a unit of study to include 20 to 30 new terms that students need to know and be able to use well. Textbooks often highlight these terms and include them in the glossary. However, when teachers use primary source material or collections of media or print articles, it is important that students receive guidance in knowing which terms are most central to the concepts for which they are being held accountable. Several vocabulary researchers and educators prefer to use the term *disciplinary vocabulary* or *technical vocabulary* for what the CCSS labels as domain specific. In this book we use these terms interchangeably.

Vocabulary Tiers

In distinguishing between general academic terms and domain-specific ones, the work of Isabel Beck and her colleagues (Beck, McKeown, & Kucan, 2013) is helpful. Beck and colleagues have differentiated vocabulary into three tiers, or groups. This framework is also used in Appendix A of the CCSS to explain the differences in general academic and domain-specific vocabulary.

Tier One Words

Tier One words are common, everyday words that most adults know and use regularly and that children develop in informal discourse. These words are useful but not conceptually hard to understand. ELs often develop mastery of Tier One vocabulary, and their oral communication abilities cause many teachers to overlook the need to focus more attention on the difficult academic vocabulary. These terms comprise most of our conversational vocabulary and language.

Tier Two Words

Tier Two words, also referred to as general academic vocabulary, include terms encountered in school learning across several topics and disciplines. These are

words with real utility for students. Their meanings may vary by context—for example, the word *operation,* which has one meaning in mathematics, another in medicine, and yet another in work with machines. The root word *operate* also can take on varied meanings: operate the game board joystick or the motorbike, or to move strategically in social situations. These terms are not used generally in conversational English; they are more abstract and are more likely to pose challenges to students. Therefore, there is real benefit in teaching Tier Two words, so that students can become familiar with the terms and develop strategies that help them unlock meanings in a variety of contexts. Tier Two words are also important to highlight for ELs, so they don't overlook the specific and important meanings of these terms. As several educators have noted, lack of familiarity with the meanings of these terms as used on standardized tests has frequently caused ELs to respond inaccurately to items they actually know.

Tier Three Words

Tier Three words, in distinction from Tier Two words, are more specialized terms confined to particular academic domains or content topics. They are often the labels for key concepts being taught in a content area. These terms are often introduced and highlighted in the printed materials and textbooks students read. Teachers generally also introduce these terms as they are needed for specific content development. There are often many such terms, and it is the teacher's task to focus students' efforts on those that are most essential to the content being learned and with the highest overall utility for the students.

Benefits of Using the Three-Tier Framework

Teachers can use these three tiers of words to think about which words to teach. Tier One words are usually (but not always) learned through conversations with others at home and school, and do not require much direct teaching. Tier Two words are those that we consider *general academic terms* and that require attention by teachers. However, because they often are well known by adults, many teachers think that students understand these terms better than is often the case. These words thus deserve teachers' careful attention.

Tier Three words can be associated with the terms *domain-specific vocabulary, content-specific vocabulary* (Hiebert & Lubliner, 2008), or *technical vocabulary* (Fisher & Frey, 2008). In this book, we use the term *domain-specific vocabulary*; this use fits the distinction in the CCSS documents between academic and domain-specific vocabulary. The domain-specific words have less general applicability, but are often central to the concepts and ideas in content-area instruction.

Other Dimensions of Academic Vocabulary

Attention to academic vocabulary has led some researchers to further differentiate some categories of words that are helpful for teacher consideration. Both Hiebert and Lubliner (2008) and Baumann and Graves (2010) extract a set of words that are most useful in school tasks and in thinking about state and national standards. Hiebert and Lubliner call these *school terms*, and Baumann and Graves use the word *metalanguage* to identify this set of terms, which includes words like *genre, estimate, summarize, draft, compare and contrast,* and *punctuate*. These terms are particularly important for secondary students to develop, as they are used regularly on standardized tests and other performance tasks. Many students have fairly "fuzzy" ideas of what they may be asked to do on such tasks and do less well than they are able to, simply because they don't fully understand the tasks' demands.

It is worthwhile to mention "up front" the difference between how general academic vocabulary works in literature and how it works in other disciplines. In literature, Tier Two and Tier Three words (general academic terms and domain-specific terms) don't occur as major concept terms, but are likely to describe characters, settings, or aspects of conflict and style. Hiebert and Lubliner (2008) distinguish these terms because these are words authors of adolescent and young adult literature use in their work to "describe characters, their actions and settings in which the actions occur" (p. 111). These specific descriptive words (often adjectives and verbs) are often essential to understanding basic elements of literature, yet don't occur frequently within any one text. The challenge this poses to teachers of literary works is real; you will find much elaboration on how to address this challenge in Chapter 6, on teaching literature.

Identifying Important Academic Terms

Academic terms are identified and defined in various ways in textbooks and supplemental materials. Students need to learn how to use these different types of supports: italicized and boldface terms, footnotes or side notes, glossaries, lists of key terms with some activities to focus students' attention on the initial pages of each chapter, and so on. Some newer science programs include vocabulary cards with key academic terms and online games to help reinforce word learning. Reading and literature programs often focus on vocabulary to be learned, and some even teach students how to look at word families and make connections among terms. Teachers need to take advantage of these resources when they are available.

If you are not using a text-based or commercial approach to teaching, then some more general resources can help determine which words deserve focus. A useful, if somewhat dated, corpus of words was compiled by Marzano (2004) after the first round of state and content-area standards. Marzano analyzed the standards

documents and compiled a list of academic terms that occur most frequently, organized by grade bands and content areas. This resource is still useful to see whether widely used academic terms are being taught in your classroom and school.

Another useful list is one compiled by Coxhead (2000). Her Academic Word List was derived from her analysis of 3.5 million words used in texts across content areas. (One caveat is that these were college-level texts; another is that the texts were from England and New Zealand.) Words found in the first 2,000 most commonly used terms in English were omitted, and then the terms that occurred at least 100 times were grouped into 570 word families (the stem, inflected forms, and forms with prefixes and suffixes). These words constitute about 10% of the words in content-area texts, so Coxhead's list remains a useful reference. The list has been used widely as a guide to academic vocabulary development and to determine the difficulty of materials. However, some vocabulary researchers have compared this list to terms in currently used textbooks and found little overlap. Therefore, it is important to use these lists as starting points, but to be most attentive to the concepts and terminology used in your own context.

In this book, we too provide several valuable tools you can use to determine which words are worth teaching at particular levels and in specific contents. Because there are varied criteria for what is important across the content areas, these issues are addressed in the specific content chapters.

Academic Vocabulary Is Embedded in Academic Language

Students may sometimes have difficulties with academic vocabulary, but they may also struggle to make sense of some of the language in which that vocabulary is embedded. The languages of home and school are different, and it is part of our job as teachers to introduce students to the academic discourses of the various disciplines. They need to learn how scientists, mathematicians, historians, and so on write and speak about their subjects. Take, for example, this passage from a middle-grade science text:

> Although water ecosystems, like biomes, have dominant plants, they are most often identified as freshwater ecosystems or saltwater ecosystems. (Watkins & Leto, 1994, p. 63)

It is unlikely that you would come across a sentence structure like this anywhere but in an academic discipline. If you were asked to identify the main idea, you might give it as follows: *Water ecosystems can be divided into freshwater and saltwater.* But notice how far apart the subject and object of this sentence are, and the information about *dominant plants* seems almost incidental. In Chapter 2, we look more closely at academic language structures and how best to address them. At

this point, we simply want to draw your attention to the idea that students need to learn academic language in addition to academic vocabulary.

Elements of a Strong Vocabulary Program

Basic Components

Some basic components of a strong vocabulary program are applicable across most content areas. We share a few of these below, so that you can begin your engagement with this book knowing some of the foci that we elaborate more fully in later chapters.

First, it is important to analyze each vocabulary task both for the students and for the content you plan to teach. From the potential words, select those with the highest utility within the lesson or unit, and those that have generalizability across other units and other contexts.

Second, you will need to help students assess their levels of familiarity with the terms and help them attend to those that are most important, so that they can devote their energy to learning those that have been identified as central to the content. You can do this in various ways, including having students rate their knowledge of the terms; the goal is to draw students' attention to the most essential terms early in a lesson or unit of study, to help them focus cognitive resources where these will be most needed.

Third, you will need to use the opportunity at the initial stages of a unit to give students some instruction with the words. The nature of the activities will depend on what will benefit students most as they encounter the terms and discriminate their individual meanings. If there are many related terms, you might want to lead a lesson creating a semantic matrix highlighting specific attributes of each term. Or you might pair students and ask them to do a word search—locating the key terms in the textbook and then discussing the uses of each one. From this preview of the text, students could then construct working definitions of these words. This might also be a good time to do a lesson on morphology: Have students find words with the same root (e.g., *demo: democracy, democratic, undemocratic, demography*) and then decide on what the root (e.g., *demo*) means. Finally, students often benefit from a lesson on how to use context to build partial meanings of terms, and how to use the actual definitions texts provide.

Fourth, you will need to help students develop strategies for keeping these terms before them, for rehearsing them, and for deepening their understanding of their varied uses and meanings. Some academic terms also have more common meanings, and these different definitions need to be highlighted (e.g., see our *operation* example earlier in this chapter). Teachers should use these terms orally in useful contexts to give students access to both the written and oral forms of the terms.

The interplay between using academic terms orally and encountering them in print is another important aspect of academic vocabulary development. Students need several opportunities to use new terms orally, to build a familiarity with the terms, and to experiment with the contexts in which they are best expressed.

Additional Dimensions

Activities that help students construct fuller understandings of terms than simply learning their basic dictionary definitions are needed for the students to really know these terms. Definitions or descriptions, attributes, examples, ways to distinguish a term from similar ones, and nuances of when and how the terms are used are all important. When students have opportunities to explore varied uses of terms, to both see and hear these words used in several contexts, and to explore online resources for the terms, they become more aware of how "slippery" definitions are and how important context is to word use.

Many academic terms have their origins in Greek and Latin, so helping students attend to morphology and word histories will build their understanding. It is useful to help students connect several terms with a common root. As Nagy (1988) explains, vocabulary development depends on students' knowledge about these morphological families and on their ability to use this knowledge.

In some content-area materials, visual diagrams of concepts provide important information about the academic terms and need to be studied. Students should learn to match new concept terms with their visual representations, and to create diagrams or drawings if texts don't provide them.

Supporting ELs

ELs often are still developing their general, or Tier One, vocabularies while they are learning Tier Two and Tier Three vocabularies along with their English-dominant classmates. Because of this added learning challenge, it is helpful for teachers to provide sheltered English supports for them (Echevarria, Vogt, & Short, 2013). ELs who have Greek or a Latinate language as their first language have a special resource that can help them learn academic vocabulary. Many English academic terms (Tier Two and Tier Three words) have Tier One analogues in these languages. For example, words like *absurdo* (*absurd* in English), *mesa*, *arroyo*, and *pacifico* (*pacific* in English) are common terms in Spanish, but not in English. Such analogues make learning domain-specific words easier for EL students when teachers invite them to connect both languages and use their first-language resources.

The importance of encouraging students to think in both languages is supported in a recent research study by Scott et al. (2012), who found that in their identified academic terms for fourth- and fifth-grade science and math, about 70%

were Spanish–English cognates. With teacher encouragement, students can learn to draw on their first-language resources and find connections among vocabulary. Often what are more esoteric terms in English are more common forms in Spanish or French, as in the Spanish examples above. Simply asking students to make charts of the new words with the English and the home-language versions side by side can help both teachers and students find connections.

Laying the Foundation for Effective Teaching

Teachers who are serious about helping students expand their academic vocabularies also create classroom and school contexts where attention to words is a regular part of school life. Being serious about language development also means enriching students' background knowledge about vocabulary, making it personal, and connecting it to their lives beyond school. Three aspects of engaging, overarching language culture are described in this section.

Teachers' Modeling of Continued Language Development

Students need your help and encouragement in attending to and learning academic vocabulary. Teachers are role models and guides in helping students learn how to be "vocabulary smart." It is up to you to regularly note new and interesting words, as well as new uses of somewhat familiar terms, and to "think aloud" about these with students. For instance, bringing in a magazine article or a brochure and highlighting for students some unfamiliar terms as you read it orally to them can help students become more willing to do the same. As students move from middle to high school, some become hesitant to express their lack of familiarity with new words and concepts. Teachers can help students overcome this hesitation by bringing in words that are new to the teachers themselves, modeling how they noted the terms, and then showing students how they sought out the terms' meanings or engaging the class in trying to determine the meanings intended by the authors.

Teachers can also explain to students their own strategies for learning new words that are important. Some teachers may explain that they connect each new term to an already familiar word or experience, make a rhyme for the new word with something familiar, or connect the term to a person for whom it can be associated. Donna, one of our authors, often shares a true incident that occurred in the college dining room. A faculty member with whom she was eating paused as he looked up at a friend who walked into the room and exclaimed, "Wow, is she coruscating today!" Not knowing the word, I waited for a moment to ask what it meant. "Sparkling," he responded. And he was right—our colleague was bubbling

and excited. This seemed like a lovely word to add to my vocabulary, but I was eating lunch and had no paper to write it down. I did try to make some associations so I could remember the word later: I thought, *coruscating*—sounds like a positive term, given how my friend used it, so *chorus* and then *gate* led me to think of a chorus line going through a stylized gate. Good thinking for the brief time I had before our conversation moved on to other topics. Later in the afternoon I knew I needed to write the word if I would be able to remember it; alas! Already I had confused my images—I saw Rockettes dancing—my visual imagery was strong, but the particular words were wrong. It wasn't until that weekend, when I read a book review that indicated "this made for coruscating reading," that I had found my word again. This time I wrote it on one of the 3″ × 5″ cards I often use for words I am trying to add to my vocabulary, and it stayed with me. Soon, I found the word in another context and added the sentence to my card (*The dew on the grass created coruscating lighting.*). Teachers who share experiences of their own efforts to learn words can open students to the realization that "adults" don't know all the words. Vocabulary expansion is a lifelong process.

For some teachers, holding on to a new word so it can be learned may involve creating a word card for the new term, putting the context in which it was encountered on the card, and then putting a description, definition, or illustration on the back side of the card. Some teachers like to keep a collection of words they are learning on their computers or smartphones. Showing students how terms are not just identified and defined, but also kept handy so they can be practiced, is a part of modeling how teachers as adults attend to new terms, develop understanding of their meaning, and then utilize strategies to retain them. Modeling how to practice and try out new words is important; many less-confident students think that "smart" people learn new words immediately when they see them or hear them. If students are going to get into the fun of building vocabulary, they need to know that it takes many exposures and attempts to use new terms. Some students may be surprised that teachers also need and use strategies to learn words; it makes word learning a genuinely shared adventure.

Teachers can also encourage students to take risks in the classroom by bringing in and sharing words they encounter in their own reading. This may involve taking time at the beginning of a class period to ask students to share any new terms they have recently found, and to explore the context in which the terms were used and what they may mean. Students can then use their own resource tools (hard copy or online dictionaries and glossaries) to develop definitions for the terms. A class bulletin board or website of new and interesting words keeps the importance of vocabulary growth fresh and personal for students.

Still another way teachers can model for students their own attention to vocabulary is to read books about words and language orally (Braun, 2010; McKeown & Beck, 2004; Neugebauer & Currie-Rubin, 2009). At every grade level, there are

both fun and informative books that can nurture students' interests in language. Some introduce interesting names and words, such as *Crazy English* (Lederer, 1990) and *The Miracle of Language* (Lederer, 1991); some deal with the history of words and changing usages, such as *Thereby Hangs a Tale: Stories of Curious Word Origins* (Funk, 2007); some expand students' knowledge of specificity of usage, such as *The Professor and the Madman* (Winchester, 2005) and *The Real McCoy: Why We Say the Things We Say* (Hole, 2005); and some foster students' urge to create new words, such as *What's in the Word?* (Elster, 2005). Taking just a few minutes at the start or end of a class to read a short section about our language can sustain students' engagement with their own vocabulary development.

Nurturing Students' Interest in Words and Expanding Their Awareness of How Language Functions

Helping students become interested in words and language, and attentive to new words, phrases, and uses of language, is an essential foundation for vocabulary development. Students need to be interested in and knowledgeable about words and how they function as they encounter increasingly content-specific vocabulary. This involves teachers from all grades and disciplines. All teachers need to consciously check to be sure that they entice students with their own curiosity about words and help them explore unusual, new, and interesting uses of language. Although in later chapters we suggest many ways to do this, a good starting place is to check the collection of books in your classroom and tag those that deal with language and words.

Some teachers use magazines and contemporary culture to awaken older students to the creativity involved in creating new terms and revising uses of others. They involve students in thinking about vocabulary expansion by letting them find the most current words used for clothing, colors, hairstyles, sports, and music. Teachers often have middle-grade students write a glossary of terms for their favorite fantasy series. In these ways, teachers alert students to the reality that vocabulary is constantly growing and changing.

The joy of exploring books, magazines, and newspapers with interesting words and with information about language should be possible in all classrooms, at all levels. With all the online and graphic resources now available, it is quite easy to build a collection that will entice your students and open new worlds to them.

Making Vocabulary Learning a Shared Classroom and School Activity

Several schools we know have weekly words that the whole school population learns together. These are usually words that have general utility across subject areas, but they help reinforce and develop students' curiosity about words and the wealth of

words in our language. Some schools put these words on the school marquee where all can see them; others send the words home so parents can post them on their refrigerators. Many schools have students describe these words and use them in the morning public address system announcements. Teachers who post the words on their classroom walls help students maintain their attention to expanding their vocabularies. These are just a few ways in which vocabulary can become visible in a school. In the following chapters, we share many ideas for making vocabulary exploration a lively part of classroom and school life. This is an essential starting place for all that we discuss as we focus on the central role of vocabulary learning. You may want to make a list of ideas that you have already implemented in your classroom and see how you can build on those, making them as effective as possible for all your students.

Concluding Thoughts

In this first chapter, we have set the context and furnished some common vocabulary for what follows in the rest of the book. As you read on, think about how you can support your students in expanding their general academic vocabularies—helping them attend to, explore, and use an increasing range of academic language in their oral and written discourse. By identifying general academic terms as well as domain-specific words needed for learning particular content, you can then decide which words to select for more focused instruction because of their importance and general utility for your students. We hope that this introduction has also helped stimulate your own thoughts about the vocabulary-learning opportunities you can provide in your classroom and throughout the school.

Students need regular opportunities to learn strategies for identifying and learning words they encounter as part of their academic work as they read and listen (receptive vocabularies); they also need support in being able to use those words as they speak and write about the content (expressive vocabularies). An added challenge in learning academic terms is that not only are there large numbers of new concept terms, but the way ideas are expressed varies by academic disciplines. So both the vocabulary and the forms of discourse are central aspects of language development.

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