chapter
ONE

The Importance of Developing a Robust Vocabulary

The limits of my language are the limits of my mind.
All I know is what I have words for.

Ludwig Wittgenstein

Four-year-old Ben finds a treat in the bottom of a box of cereal. "What is it?" he asks, and Mom replies, "It's an animal that lived long ago. It's called a dinosaur." Satisfied with her explanation, Ben runs off to play with his new toy. Several days later, he sees his dinosaur on television and points this out to Dad. Dad explains that his dinosaur is a *Tyrannosaurus rex* and then proceeds to give Ben labels for the other kinds of dinosaurs they see on television. Ben repeats the names. He likes how grown-up the words sound and the way they roll around in his mouth. As he watches the dinosaurs, he tells his dad what he sees: "That dinosaur flies like a bird. That one walks like a dog." He is making connections about dinosaurs to what he already knows.

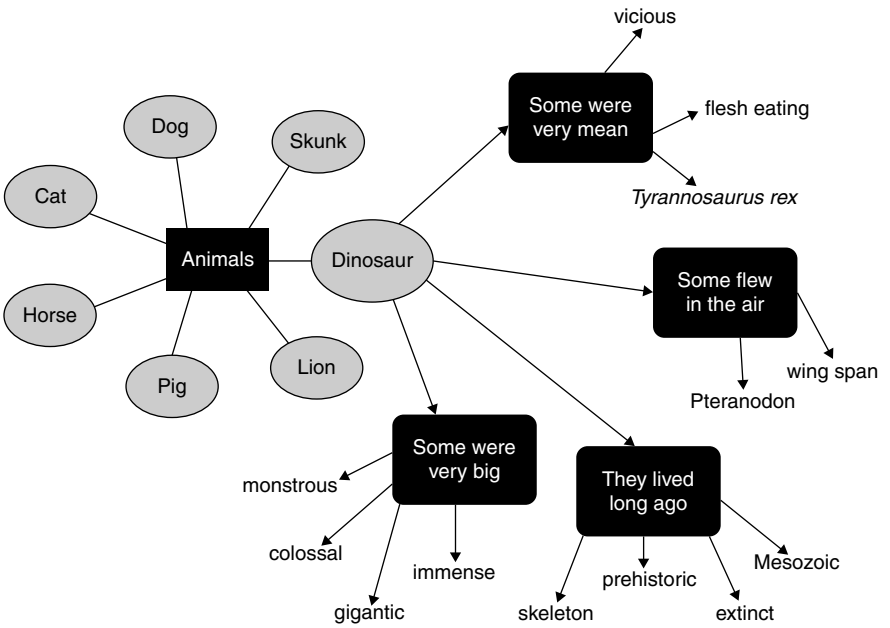
A few weeks later, Grandma comes to visit. Since Ben's enthusiasm for dinosaurs has spilled over into their weekly telephone conversations, she brings Ben a book about dinosaurs, and together they look at the pictures as she reads the book aloud to him. Over time, Ben discovers that dinosaurs lived long, long ago and now are extinct. He also learns that some dinosaurs were very mean and even ate other animals, and now he has words like *flesh-eating* and *carnivore* to describe this. On the next trip to the library, Ben looks for more books about dinosaurs, as he seems to have an unquenchable thirst to learn all he can about these formidable animals.

One day Ben decides to bring his collection of dinosaurs to kindergarten for sharing time. As he prepares to present them to the class, his teacher asks the students what they know about dinosaurs. Rachel says dinosaurs lived long ago. The teacher acknowledges Rachel's comment and says, "Yes, that's right, Rachel. Now they are extinct. An animal or plant becomes extinct when there are no more of its kind alive." Jamal adds that some dinosaurs were bigger than a bus. His teacher agrees and elaborates, "That's right. Some of the dinosaurs were enormous." Then Ben shares some of what he knows about dinosaurs, which could be represented on a diagram like the one in Figure 1.1.

This word web is one way to show how new words relate to known words. Ben already knows some things about animals and uses what he knows about them to construct meaning for the word *dinosaur.* Some of the new words, such as *immense, gigantic,* and *skeleton,* are useful in other settings. Ben made this clear when he explained that at the museum, he saw "the skeleton of a Brontosaurus that was as immense as the new hotel they were building near the gas station."

Because of Ben's interest in dinosaurs, he receives several toy dinosaurs for his birthday. His dad tells him the names of his new toys: Pteranodon, Allosaurus, and Stegosaurus. He begins to make finer and finer distinctions among his dinosaurs and learns new names that relate to them. For example, he learns that a Stegosaurus has "platelets" on its back and the Pteranodon has "talons." Ben's fascination with dinosaurs, initially motivated by a new toy, results in his actively acquiring a network of words and concepts about them. He learns their names, and when he is sufficiently confident in his knowledge, he shares his dinosaur collection with

Figure 1.1.
Ben's Word Web of Dinosaurs



others. The admiring feedback he receives will probably motivate him to learn even more about dinosaurs. Who knows? A cereal box toy could inspire Ben to become a paleontologist.

VOCABULARY AND ACADEMIC SUCCESS

Ben is developing what Isabel Beck calls a "robust" vocabulary—one that is "vigorous, strong, and powerful" (Beck, McKeown, and Kucan, 2002). By the end of kindergarten, he already has many "tags" or "labels" stored in his long-term memory. As he encounters new experiences, images, and their accompanying tags, his vocabulary will continue to expand, and he will continue to use what he already knows to construct meaning for these new words. It is safe to say that every new *gigantic* thing Ben

encounters will be compared to the gigantic-ness of dinosaurs. With his growing vocabulary, he will not only recognize more words in conversations, when he is being read to, and in written form as he develops his literacy skills; he will also have greater comprehension skills because he can bring meaning to these experiences. Ben is well on his way to success in school.

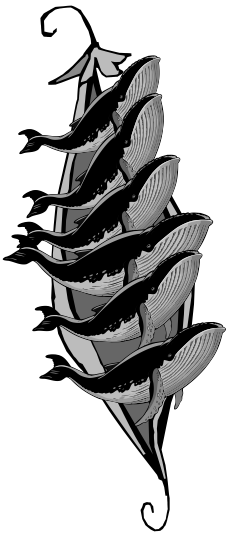
Like Ben, other children with robust vocabularies understand a great deal of what they hear, see, and read because they know a lot of words. The words children know represent the conceptual understanding they have, even if it is surface knowledge. This knowledge helps them construct meaning for new words and information they are receiving. Decades of research on learning conclude that "people construct new knowledge and understanding based on what they already know and believe" (Bransford, Brown, and Cocking, 2000, p. 10). In short, students' prior knowledge helps them learn new things more easily.

Hearing new labels for things allows students to see what they have not seen before—to clarify and enrich the meaning of concepts they may already be somewhat familiar with. From a very young age, they know what flowers are, and as they get older, they learn the words for specific flowers: *rose, tulip, lilac, daisy, buttercup.* These finer distinctions among words help them develop a deeper, more flexible understanding of the core meaning of words. Ultimately they come to understand how the same word can have different meanings. For example, in the primary grades, children start to appreciate jokes like, "Why is it cool at a baseball game?" The answer: "Because all the fans are there."

If their vocabulary is meager, they are limited in what they see and understand. Certainly Ben was able to see many distinctions before he learned his new vocabulary words, but the increasingly sophisticated labels he was learning allowed him to see beyond the visible and understand more abstract concepts, such as flesh eating versus plant eating. His vocabulary was becoming much more transferable and robust.

Learners with robust vocabularies are attuned to new words. They are word conscious, which means they are aware of, intrigued by, and interested in language. Word consciousness motivates their learning. Puns, idioms, and familiar words in unusual contexts, such as a *pod of whales* (Figure 1.2) or a *corned beef* (Figure 1.3), excite the imagination of students with rich, robust vocabularies. As their vocabularies expand, their capacity to make sense of the world around them and express themselves to others is heightened.

Figure 1.2.
Drawing of a "Pod of Whales"



Certainly a robust vocabulary is essential; we need words to develop our capacity to speak, read, and write. It is through vocabulary, oral and written, that we comprehend information and express ourselves. According to the 2000 Report of the National Reading Panel, *Teaching Children to Read,*

> Vocabulary occupies an important position in learning to read. As a learner begins to read, reading vocabulary encountered in texts is mapped onto the oral vocabulary the learner brings to the task. That is, the reader is taught to translate the (relatively) unfamiliar words in print into speech, with the expectation that the speech forms will be easier to comprehend. A benefit in understanding text by applying letter-sound correspondences to printed material only comes about if the resultant oral representation is a known word in the learner's oral vocabulary. If the resultant oral vocabulary is not in the learner's vocabulary, it will not be better understood than it was in print. Thus,

Figure 1.3.
Drawing of "Corned Beef"

vocabulary seems to occupy an important middle ground in learning to read. Oral vocabulary is a key to learning to make the transition from oral to written forms, whereas reading vocabulary is crucial to the comprehension process of a skilled reader [p. 4-15].

OVERCOMING THE VOCABULARY GAP

That Ben arrived at school with a robust vocabulary and an extensive network of words will have a tremendous effect on his success in school. But what will happen to those students who come to school with small vocabularies and little

ability to make connections between the meanings of words? "One of the most consistent findings of educational research is that having a small vocabulary portends poor school performance and, conversely, that having a large vocabulary is associated with school success" (Anderson and Nagy, 1993, p. 6). Is there really that much of a vocabulary gap among students, and does this gap have that much of an effect on their success in school?

The answer to these questions is a resounding yes. The difference in the number of words students know as they enter school is startling and related to socioeconomic status (SES). In 1982, researchers found that in a domain of 5,044 words, first graders with low SES knew about 1,800 words. Their middle-class counterparts knew approximately 2,700 words (Graves, 1986; Graves, Brunetti, and Slater, 1982). Using a larger domain of over 19,000 words, the same researchers found that the disadvantaged first graders knew about 2,900 words compared to the middle-class students' 5,800 words. Students in middle-class schools learn about 5,200 new words a year. Students in lower-SES schools learn about 3,500 words a year (Baker, Simmons, and Kame'enui, 1995). It is clear that economically disadvantaged students have a dramatically smaller vocabulary than their middle-class counterparts.

The research on the effects of the so-called vocabulary gap is powerful (see Marzano, Pickering, and Pollock, 2001, for the review of research). In addition to the "well-documented link between vocabulary size and early reading ability" (Snow, Burns, and Griffin, 1998, p. 47), vocabulary size was found to be associated with the ability to comprehend new information (Chall, 1958; Harrison, 1980) and even with income level (Sticht, Hofstetter, and Hofstetter, 1997).

In other words, children who have poor vocabularies are at a great disadvantage in school and in the rest of life. It is more difficult for students with fewer concepts to construct meaning from what they hear or read because they have limited background knowledge. Consequently, the new words they encounter may have little meaning for them, making it difficult for them to remember and use these words. In contrast, students with larger vocabularies continue to build their vocabularies at rates that widen the gap between the two groups. And yet current research suggests that in many classrooms, not much attention is paid to vocabulary (Ryder and Graves, 1994; Watts, 1995).

Although this all sounds rather distressing, the good news is that if children with limited vocabulary are provided vocabulary-rich experiences in school, they

too can learn new words. In other words, a lack of vocabulary in students is not genetically based; rather, it is based on lack of meaningful experiences with words. So if children have not developed their vocabularies by the age of three, the window of opportunity does not close. It is never too late to begin building a robust vocabulary.

PLANNING VOCABULARY INSTRUCTION IN YOUR CLASSROOM

As a classroom teacher, you undoubtedly see many discrepancies in the vocabulary levels of your students and the effects these have on them. We share your concerns. All students deserve to be involved in a vocabulary program that not only helps them learn words of value to them, but provides them with direction in how to learn those words in the most efficient and meaningful manner.

The purpose of this book is to help you reflect on the effectiveness of your own vocabulary program while examining new information and processes that might help you become more effective. Our hope is that as you consider new ways to teach vocabulary, you will gain greater insight into how the vocabulary size of students can be increased and how to increase the number of strategies your students use to determine or refine the meaning of new words. This book should also help you understand the differences between how younger and older students learn new words and how to use research-based strategies effectively in your classroom.

Our belief is that if you strengthen your vocabulary program, you will not only be able to reduce the gap between learners with poor word knowledge versus those with robust word knowledge, but you will also create an environment where all students value the power of words. In both ways, you will improve everyone's chances of success in school and in life.

Before turning to the next chapter, reflect on your current vocabulary program. Think about how you help students expand their vocabularies, and then score yourself on each of the self-reflection questions in Figure 1.4. As you continue to read this book, you will find information that relates to each of these questions. Our hope is that this book will help you consider changes you might like to make in the ways you treat and teach vocabulary in your classroom.

Figure 1.4.
Self-Reflection Questionnaire: Vocabulary Learning in My Classroom

How would you rate your current classroom practices for vocabulary instruction?

Indicate to what extent you do the following:

Do I focus on vocabulary learning in my classroom?

Small extent **Great extent**

1 2 3 4 5

Do my students understand the value of vocabulary and how it affects their ability to read, write, and speak?

Small extent **Great extent**

1 2 3 4 5

Do I use a robust vocabulary in the classroom?

Small extent **Great extent**

1 2 3 4 5

Do I create a classroom setting that is vocabulary rich?

Small extent **Great extent**

1 2 3 4 5

Do I engage students in wide reading experiences (sustained silent reading) as a means to build their vocabulary and background knowledge?

Small extent **Great extent**

1 2 3 4 5

Do I have an established set of criteria based on current research that I use to make decisions about what words students will be learning?

Small extent **Great extent**

1 2 3 4 5

Do I provide direct instruction on complex, abstract words?

Small extent **Great extent**

1 2 3 4 5

Figure 1.4.
Self-Reflection Questionnaire: Vocabulary Learning in My Classroom *(continued)*

Do I use current research to guide the selection of strategies that I teach students?

Small extent **Great extent**

1 2 3 4 5

Do I give students feedback on how they are applying these strategies?

Small extent **Great extent**

1 2 3 4 5

Do I thoughtfully plan incidental learning experiences to increase vocabulary?

Small extent **Great extent**

1 2 3 4 5

Do I collect evidence to determine the effect the strategies have on students' vocabulary growth?

Small extent **Great extent**

1 2 3 4 5