

Introduction

The importance of vocabulary is daily demonstrated in schools and out. In the classroom, the achieving students possess the most adequate vocabularies. Because of the verbal nature of most classroom activities, knowledge of words and ability to use language are essential to success in these activities. After schooling has ended, adequacy of vocabulary is almost equally essential for achievement in vocations and in society.

Walter Petty, Curtis Herold, and Earline Stoll, *English Educators*

Shortly before or after they celebrate their first birthday, children are likely to utter their first word. Establishing just when children say their first word isn't easy for a number of reasons. For one thing, children aren't always considerate enough to say their first word when an adult is conveniently present to record it. For another, children's first words usually appear after a period of extensive babbling of nonsense sounds, and true words aren't always easy to distinguish from babbling. And for still another, children's first words are usually recorded by their parents, and proud parents can be somewhat less than objective observers of their offspring's accomplishments.

Although we often cannot pinpoint when exactly a child utters her first word, child language specialists such as Clark (1993) can tell us a lot about children's early vocabularies. Syntactically, early words may represent sentences; to a child the word *ball* may actually mean "Bring me the ball," "That's a ball," or "Throw the ball." Semantically, early words may represent broader meanings than do similar adult words. *Juice* may be used to refer to milk, water, and anything else that children drink. Alternately, early words may represent narrower meanings than do similar adult words. *Dog* may be applied to large dogs such as German Shepherds and Irish Setters, but not to small dogs such as Chihuahua and Pekingese. And in some cases, children both underextend and overextend word meanings, as when *dog* is used only for large dogs but is also used

to refer to sheep, cows, goats, and horses. Nor is the first set of meanings that children assign to a word all that predictable. One boy first used the term *wah wah* to refer to dogs and then used it to refer to all animals, soft slippers, and a picture of an old man dressed in fur.

After uttering their first word, children initially accumulate new words rather slowly. Over the 3 months following the appearance of the first word, they may learn an additional 50 words. During this period, many children speak exclusively in one-word utterances. Then, after accumulating the 50 or so words, they begin stringing words together to form sentences, two-word sentences at first, then three-word sentences, and soon longer ones. By Age 2, many children have productive vocabularies of 500–600 words and receptive vocabularies considerably larger than that.

Vocabulary and other facets of language develop rapidly after this point. By the time children enter first grade, their phonological systems are largely or fully complete. Although not all first graders have achieved phonemic awareness and although their phonics skills are just beginning to develop, most first graders can recognize and produce all or almost all of the sounds in their language. Their syntactic systems, although not as advanced as their phonological systems, are well on their way to maturity. Few 6-year-olds have mastered the most complex syntactic structures, but most can understand and produce a large percentage of the nearly infinite number of sentence patterns in the language. At this time, children's vocabulary development is in one sense similarly impressive: They have learned a very large number of words. However, their vocabulary learning has really only begun. Between the time they enter first grade and the time they graduate from high school, students will add tens of thousands of words to their vocabularies.

Before considering more of what is known about children's vocabularies, it is useful to consider the importance of vocabulary, the topic that Petty, Herold, and Stoll (1967) discussed in the introductory quote to this chapter. Virtually all authorities on literacy education agree strongly with Petty and his colleagues that vocabulary knowledge is vital to success in reading, in literacy more generally, in school, and in the world outside of school. The findings of over 100 years of vocabulary research include the following:

- Vocabulary knowledge is one of the best indicators of verbal ability (Sternberg, 1987; Terman, 1916).
- Vocabulary knowledge contributes to young children's phonological awareness, which in turn contributes to their word recognition (Goswami, 2001; Nagy, 2005).

- Vocabulary knowledge in kindergarten and first grade is a significant predictor of reading comprehension in the middle and secondary grades (Cunningham & Stanovich, 1997; Scarborough, 1998).
- Vocabulary difficulty strongly influences the readability of text (Chall & Dale, 1995; Klare, 1984).
- Teaching vocabulary can improve reading comprehension for both native English speakers (Beck, Perfetti, & McKeown, 1982) and English learners (Carlo et al., 2004).
- Growing up in poverty can seriously restrict the vocabulary children learn before beginning school, and can make attaining an adequate vocabulary a challenging task (Coyne, Simmons, & Kame'enui, 2004; Hart & Risley, 1995).
- Disadvantaged students* are likely to have substantially smaller vocabularies than their more advantaged classmates (Templin, 1957; White, Graves, & Slater, 1990).
- Learning English vocabulary is one of the most crucial tasks for English learners (Folse, 2004; Nation, 2001).
- Lack of vocabulary can be a crucial factor underlying the school failure of disadvantaged students (Becker, 1977; Biemiller, 1999).

Fortunately, since vocabulary is so important, we know a great deal about vocabulary development and about how to teach vocabulary. The 100 years of vocabulary research have led to a wealth of findings in addition to the list above. I review the research on vocabulary learning and vocabulary instruction in some detail in Chapter 2, and I use both the vocabulary research and the many recommendations that have been made about teaching vocabulary throughout this book. At this point, however, I want to introduce three crucial facts about vocabulary, facts to keep in mind when reading this book and planning vocabulary instruction.

1. *The vocabulary learning task is enormous!* Estimates of vocabulary size vary greatly, but a reasonable estimate based on a substantial

*By *disadvantaged students* I refer to students who grew up in environments in which they are likely to have encountered fewer English words than their more advantaged peers. Many of these students grew up in poverty and many grew up in homes in which English was not the primary language. The term does not imply that these students, the language they speak at home, or their communities are somehow less good or less worthy than other students, the language they speak at home, or their communities. However—and this is the main point that we need to keep in mind and do something about—in school many disadvantaged students will encounter more unfamiliar words than their more advantaged classmates.

body of recent and rigorous work (Anderson & Nagy, 1992; Anglin, 1993; Miller & Wakefield, 1993; Nagy & Anderson, 1984; Nagy & Herman, 1987; White et al., 1990) is this: The books and other reading materials used by school children include over 180,000 different words. The average child enters school with a very small reading vocabulary, typically consisting largely of environmental print. Once in school, however, a child's reading vocabulary is likely to soar at a rate of 3,000–4,000 words a year, leading to a reading vocabulary of something like 25,000 words by the time she is in eighth grade, and a reading vocabulary of something like 50,000 words by the end of high school.

2. *That there are far more words to be learned than we can possibly teach is not an argument that we should not teach any of them* (Beck, McKeown, & Omanson, 1987). Both instruction on individual words and instruction that promotes children's ability and propensity to learn words on their own are very worthwhile (Baumann & Kame'enui, 2004; Carlo, August, & Snow, 2005; Folse, 2004; Graves, 2000; Kamil & Hiebert, 2005; Nagy, 2005; National Reading Panel, 2000; Osborn & Lehr, in press; RAND Reading Study Group, 2002; Stahl, 1998).

3. *There is increasing evidence that many children of poverty enter school with vocabularies much smaller than those of their middle-class counterparts.* There is also evidence that having a small vocabulary is a very serious detriment to success in reading (Chall, Jacobs, & Baldwin, 1990; Cunningham & Stanovich, 1997; Hirsch, 2003; Scarborough, 1998). These two facts make it especially important to find ways to bolster the oral and reading vocabularies of students who enter school with small stores of words (Baumann, Kame'enui, & Ash, 2003; Becker, 1977; Biemiller, 1999, 2001, 2004; Coyne, Simmons, & Kame'enui, 2004; Hart & Risley, 1995, 2003; National Reading Panel, 2000; RAND Reading Study Group, 2002; White et al., 1990). For similar reasons, bolstering the English vocabularies of English learners is critically important (Carlo et al., 2005; Folse, 2004; Nation, 2001; Schmitt, 2000).

A FOUR-PART VOCABULARY PROGRAM

This book presents a comprehensive plan for vocabulary instruction that is broad enough to include all children: children who enter school with relatively small vocabularies; English learners with small English vocabularies; children who possess adequate but not exceptional vocabu-

larities; and children who already have rich and powerful vocabularies and are prepared for the challenge of developing still more sophisticated and useful vocabularies. More specifically, the book describes a four-part vocabulary program that I began developing 20 years ago (Graves, 1984, 1985) and have continued to modify and hone since that time (Graves, 1987, 1992, 2000, 2004; Graves & Fitzgerald, in press; Graves & Slater, in press; Graves & Watts, 2002). In its present form, the program has the following four components: (1) providing rich and varied language experiences; (2) teaching individual words; (3) teaching word-learning strategies; and (4) fostering word consciousness. In the next several sections, I briefly discuss each component and the rationale behind it.

Providing Rich and Varied Language Experiences

One way to build students' vocabularies is to immerse them in a rich array of language experiences so that they learn words through listening, speaking, reading, and writing. In kindergarten and the primary grades, listening and speaking are particularly important for promoting vocabulary growth. Most children enter kindergarten with substantial oral vocabularies and very small reading vocabularies. Appropriately, most of the words in materials they read are words that are already in their oral vocabularies (Biemiller, 2004; McKeown & Beck, 2004). For this reason, however, young children will not learn many new words from reading; they will learn them from discussion, from being read to, and from having attention directly focused on words. In the intermediate grades, middle school, and secondary school, discussion continues to be important. Students of all ages—English learners as well as native English speakers—need to engage frequently in authentic discussions, give-and-take conversations in which they get the opportunity to thoughtfully discuss topics (Alvermann, 2000). Increasingly from the intermediate grades on, reading becomes the principle language experience for enlarging students' vocabularies (Cunningham & Stanovich, 1998). If we can substantially increase the reading students do, we can substantially increase the words they learn. Thus one way to help students enlarge their vocabularies is to increase the amount of reading they do (Anderson, 1996). In fact, some researchers (e.g., Anderson & Nagy, 1992; Stahl, 1998) believe that increasing the amount that students read is the single most powerful thing teachers can do to increase their vocabularies, and this may well be the case. Anyone interested in increasing students' vocabularies should do everything possible to see that they read as much and as widely as possible.

Teaching Individual Words

Another way to help students increase their vocabularies is to teach them individual words. To be sure, the enormous size of the vocabulary that students will eventually attain means that we cannot teach all of the words they need to learn. However, as already noted, the fact that teachers cannot teach all of the words students need to learn does not mean that they cannot and should not teach some of them (Beck, McKeown, & Omanson, 1987; Folse, 2004; Graves, 2000; Nagy, 2005; Nation, 2001; Stahl, 1998). Research has revealed a good deal about effective—and ineffective—approaches to teaching individual words (e.g., see, Baumann, Kame'enui, & Ash, 2003; Beck & McKeown, 1991; Herman & Dole, 1988; Nagy, 1988, 2005; Stahl & Fairbanks, 1986): Vocabulary instruction is most effective when learners are given both definitional and contextual information, when learners actively process the new word meanings, and when they experience multiple encounters with the words. In other words, vocabulary instruction is most effective, and is most likely to influence students' comprehension, when it is rich, deep, and extended (McKeown & Beck, 2004).

Unfortunately, effective vocabulary instruction is not as frequent or as robust as it should be in classrooms (Durkin, 1978/79; Scott, Jamieson-Noel, & Asselin, 2003; Watts, 1995) or in basal readers (Durkin, 1981; Ryder & Graves, 1994; Walsh, 2003). But help is available: A good deal of recent writing on vocabulary instruction incorporates these research findings, often along with some other considerations. Biemiller (2001, 2004) proposes a program of direct instruction on specific words. Nagy (1988) suggests methods specifically selected to improve reading comprehension. Blachowicz and Fisher (1996) emphasize ways of including vocabulary instruction in all classrooms. And I (Graves, 2000; Graves, Juel, & Graves, 2004; Graves & Slater, *in press*) suggest different methods for different learning goals, including: teaching students to read words already in their oral vocabularies; teaching new labels for known concepts; teaching words representing new concepts; and clarifying and enriching the meanings of already known words.

Teaching Word-Learning Strategies

A third approach to help students increase their vocabularies is to teach word-learning strategies. The most widely recommended strategy is that of using context (Graves, 2000; Stahl, 1998; Sternberg, 1987). Recent reviews of research (Baumann, Kame'enui, et al., 2003; Fukkink & de Glopper, 1998; Kuhn & Stahl, 1998) indicate that this strategy can

be taught. And several studies (Baumann, Edwards, Boland, Olejnik, & Kame'enui, 2003; Baumann et al., 2002; Blachowicz & Zabroske, 1990; Buikema & Graves, 1993) describe research-based ways of doing so.

Using word parts to unlock the meanings of unknown words is another widely recommended strategy (Blachowicz & Fisher, 1996; Edwards, Font, Baumann, & Boland, 2004), and doing so is well supported by research (Anglin, 1993; Baumann, Font, Edwards, & Boland, 2005; White, Power, & White, 1989). I describe some research-based procedures for teaching prefixes (Graves, 2004). White, Sowell, and Yanagihara (1989) discuss research-based procedures for teaching prefixes and suffixes. And Edwards and her colleagues (2004) discuss research-based procedures for teaching prefixes, suffixes, and roots.

Using the dictionary is a third recommended approach (Blachowicz & Fisher, 1996; Graves et al., 2004) that students can use to learn word meanings by themselves, and the same authors who recommend teaching students to use the dictionary have suggested what needs to be taught and learned.

Fostering Word Consciousness

The last component of the four-part program is fostering word consciousness. The term *word consciousness* refers to an awareness of and interest in words and their meanings. As defined by Anderson and Nagy (1992), word consciousness involves both a cognitive and an affective stance toward words. Word consciousness integrates metacognition about words, motivation to learn words, and deep and lasting interest in words.

Students who are word conscious are aware of the words around them—those they read and hear and those they write and speak. This awareness involves an appreciation of the power of words, an understanding of why certain words are used instead of others, and a sense of the words that could be used in place of those selected by a writer or speaker. It also involves, as Scott and Nagy (2004) emphasize, recognition of the communicative power of words, of the differences between spoken and written language, and of the particular importance of word choice in written language. And it involves an interest in learning and using new words and becoming more skillful and precise in word usage.

With something like 50,000 words to learn and with most of this word learning taking place incidentally as students are reading and listening, a positive disposition toward words is crucial. Word consciousness exists at many levels of complexity and sophistication, and can

and should be fostered among preschoolers as well as among students in and beyond high school.

AN OVERVIEW OF THIS BOOK

The remainder of this book consists of six chapters, each of which is briefly described below.

Chapter 2, "Words and Word Learning," begins with a discussion of the vocabulary learning task students face and then moves to a discussion of vocabulary instruction. The latter discussion includes considerations of the vocabulary instruction in schools, instruction for linguistically disadvantaged students, teaching individual words, teaching word-learning strategies, fostering word consciousness, and vocabulary instruction for English learners.

Chapter 3, "Providing Rich and Varied Language Experiences," deals with the first part of the four-part program. The first section of the chapter stresses the importance of promoting incidental word learning and discusses ways of doing so through listening, discussion, reading, and writing. The second section of the chapter discusses how to directly build primary-grade children's oral vocabularies through interactive oral reading. In doing so, it first discusses characteristics of effective approaches to interactive oral reading and then discusses four specific approaches to interactive oral reading for use in the classroom. The chapter concludes with a brief discussion of word consciousness activities for primary-grade children.

Chapter 4, "Teaching Individual Words," describes the second part of the program. The first section of the chapter discusses several preliminaries to teaching individual words, including the number of words students must learn, levels of word knowledge, the various word-learning tasks that different words represent, identifying and selecting vocabulary to teach, and some principles of vocabulary instruction. The second and much longer section of the chapter presents detailed descriptions of specific procedures for accomplishing the various word-learning tasks. The third section discusses ways of selecting among the different teaching procedures and notes which ones are particularly effective in improving reading comprehension.

Chapter 5, "Teaching Word-Learning Strategies," describes the third part of the program. This chapter describes powerful procedures for teaching students to use context, word parts, and the dictionary to infer and learn word meanings. It also describes an approach students can use in dealing with unknown words they meet in reading, suggests some

personal approaches students can take to build their vocabularies, and considers when and by whom word-learning strategies should be taught.

Chapter 6, "Promoting Word Consciousness," deals with the fourth and final part of the program. The approaches described include modeling and encouraging adept diction, promoting word play, providing rich and expressive instruction, involving students in original investigations, and teaching students about words. The chapter includes both spontaneous approaches, which require relatively little time from students or the teacher, and thoroughly planned and robust approaches, which require significant amounts of time from students and teachers.

Chapter 7, "Classroom Portraits of Effective Vocabulary Instruction," presents classroom portraits of vocabulary learning and instruction in the primary grades, the intermediate grades, middle school, and high school.