CHAPTER **1**

VOCABULARY

In the introduction, vocabulary and grammar were called the building blocks of language. More precisely, vocabulary words and phrases are the building blocks and grammar is the glue that holds them together. Grammar lets you know who chased whom when you hear, "The dog chased the cat." Your knowledge of English grammar tells you that the first animal mentioned in the sentence did the action. But your knowledge of English vocabulary allows you to interpret what the dog is, what the cat is, and what they did. In fact, vocabulary is the most important aspect of language for students to learn.

Some people think that learners acquire vocabulary by guessing the meanings of words from context. However, Folse (2004) disputes the ideas that students are able to learn a lot of new words by guessing their meanings from context and that vocabulary is less important than other aspects of language. He explains the importance of learning vocabulary, the need for explicit learning and teaching, the utility of L1 (first-language) translations for learning, and the need to expand the methods that most teachers use. He cites some of the studies of CALL that we will discuss in the chapter on reading, but in this chapter we will examine the ways in which CALL can be used to help students learn vocabulary.

Regardless of teachers' beliefs about vocabulary acquisition, most students believe that they need to study vocabulary—and they are right. Most researchers today agree that English language learners need to spend time and effort studying vocabulary. They point out that learners do not have sufficient exposure to words in the English that they hear and read. Moreover, when learners encounter unfamiliar words, those words often remain unknown unless students get help from a teacher, a dictionary, or a computer. Even when learners guess the meanings of new words in context, they often guess them incorrectly, and therefore do not learn the correct meanings from such guesses. Learners need an explicit introduction to vocabulary, accurate and effective support in interpreting new vocabulary, and practice for remembering vocabulary. The tips in this chapter will help teachers use CALL to work toward these goals for vocabulary teaching.

TIPS FOR TEACHING VOCABULARY WITH CALL

The six tips described in this chapter are listed below. They provide some specific advice about how CALL can be used to teach vocabulary. The tips are based on the ideas about second-language (L2) acquisition described in the Introduction.

■ TIPS

1. Select CALL materials that teach appropriate vocabulary.
2. Choose CALL materials that explicitly teach English vocabulary.
3. Provide learners with opportunities for interaction with the computer.
4. Let the vocabulary tasks spark interaction among learners. ☉
5. Include regular evaluations of answers and summaries of performance.
6. Help learners develop strategies for explicit online vocabulary learning through the use of online dictionaries and concordancers. ☉

Throughout the rest of the chapter, we explain each of these six tips with

- a description of *what it means* for the teacher who is using CALL for vocabulary,
- a summary of *what the research says* about the tip, and
- a suggestion of *what teachers can do* in the classroom.

Along with each tip, illustrations of CALL activities from published CALL software and Web sites are provided. The Web addresses are given so that readers can visit them to try out the activities.

FEATURE: Examples of how to use two types of vocabulary software are on the CD-ROM at the back of this book. The examples include a demonstration of Tip 4 and a simulation of Tip 6.

1 Select CALL materials that teach appropriate vocabulary.

Appropriate vocabulary refers to the words students need and are prepared to learn. The words that students need are those that fit within the topics or subject areas that are useful and of interest to them. Words that students are able to learn are words with an appropriate level of difficulty. Defining word difficulty is a challenge, so vocabulary researchers use word frequency to estimate the level of difficulty. This means that vocabulary that appears most frequently in the English language is appropriate to teach to beginning students, whereas words that appear less frequently would be appropriate for more advanced students.
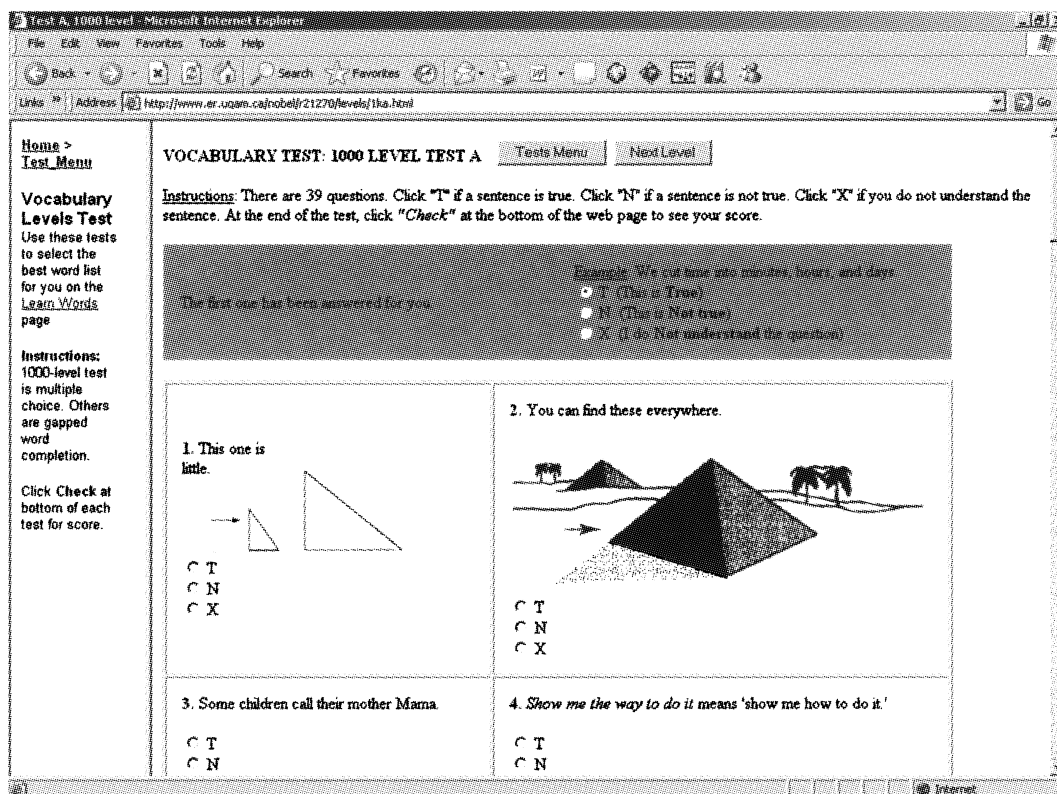
What the research says

For general vocabulary, particularly through the intermediate level, researchers use word lists arranged by frequency to identify words that appear most frequently and words that appear less frequently (Nation, 2001). It is thought that students can make the best use of their time studying vocabulary if they begin by learning the words that are used most frequently. These are the words that they are most likely to run across in everyday conversation and reading. For more advanced levels, researchers attempt to identify how many words learners need for particular contexts, such as academic work (Hazenberg & Hulstijn, 1996), and which words are most frequent in those contexts (Coxhead, 2000). Some CALL materials have drawn upon these principles for selecting words, and they are available for teachers and students to try.

What the teacher can do

Teachers can start by determining the vocabulary levels of their students. Figure 1.1 on page 14 shows a Web site that offers vocabulary tests at the lower frequency bands. These tests would be good for less proficient students. A similar type of program, shown in Figure 1.2 on page 15, is intended for students across a range of proficiency levels. Teachers can choose CALL activities that direct students to find an appropriate level of vocabulary. Teachers can help students interpret the results of such tests and guide their choices for vocabulary study.

Material	*The Compleat Lexical Tutor*
Level	Beginning to Advanced
Description	This free Web site contains a series of tests that students can use to determine their vocabulary knowledge and monitor its growth. Tests are available at the 1,000–5,000 levels, the university word list level, and the 10,000 level. The 1,000-level test is shown in Figure 1.1. Students answer thirty-nine multiple-choice questions based on the 1,000 most frequent words in English. Their scores appear in the left-hand column when they complete the test. If a student's score is below a specified level (83 percent), activities are suggested.
Web site	http://www.lextutor.ca/tests/
Notes	Students may need guidance on how to use this Canadian site because of the large variety of links. The site uses the frequency of words as well as common academic words as its basis.

Figure 1.1 Example of a vocabulary test of the 1,000 most frequent words in English.

Material	*WordSmart*
Level	High Intermediate to Advanced
Description	This program has an online placement test to determine the appropriate level for students, as shown in Figures 1.2 through 1.4. Students can register for free and then take placement tests. As illustrated in Figure 1.3, a key word appears at the top of the screen, with five choices below it. A student's level is derived from the number correct and the time spent. Figure 1.4 shows the recommended level. Four levels (C–F) are advertised as suitable for TOEFL® test preparation. For less proficient learners, there is also an ESL level including the most frequent English words.
Web site	http://www.wordsmart.com/wsc_b/index2.php
Notes	The vocabulary level software must be purchased. Each of ten levels has 200 core words with five types of exercises: multiple-choice with explanation (explanations provide synonyms, antonyms, derivations, and percentage of incorrect usage by adult native speakers); flash cards; matching; sentence completion; and an arcade-like game review.
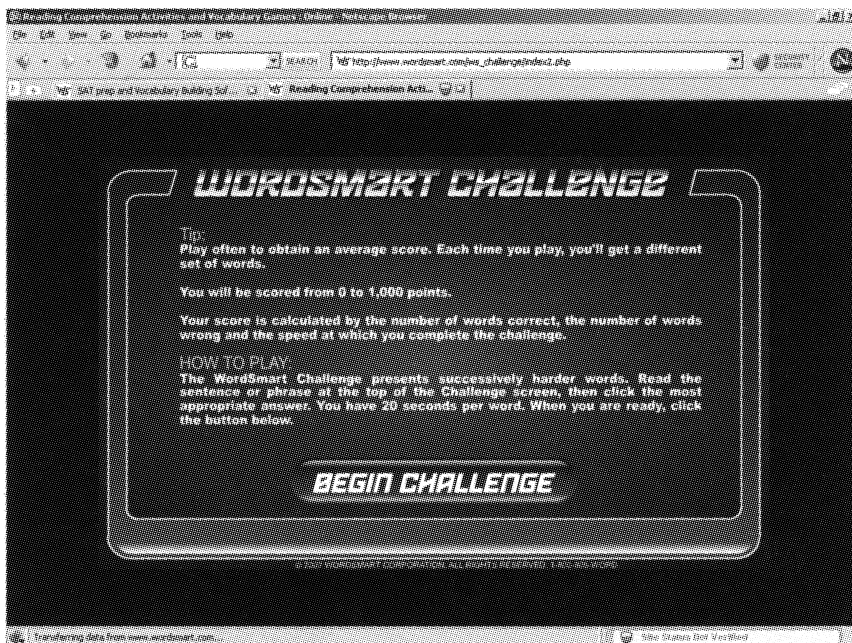
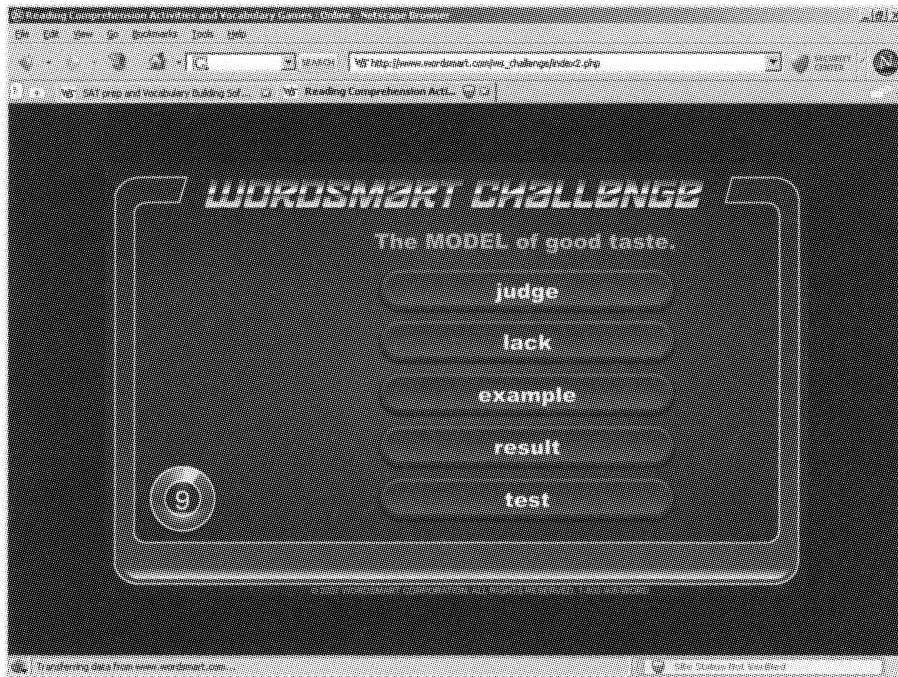**Figure 1.2** Example of the title page from *WordSmart*'s online vocabulary placement test.

Figure 1.3 Example of *WordSmart*'s multiple-choice placement test.
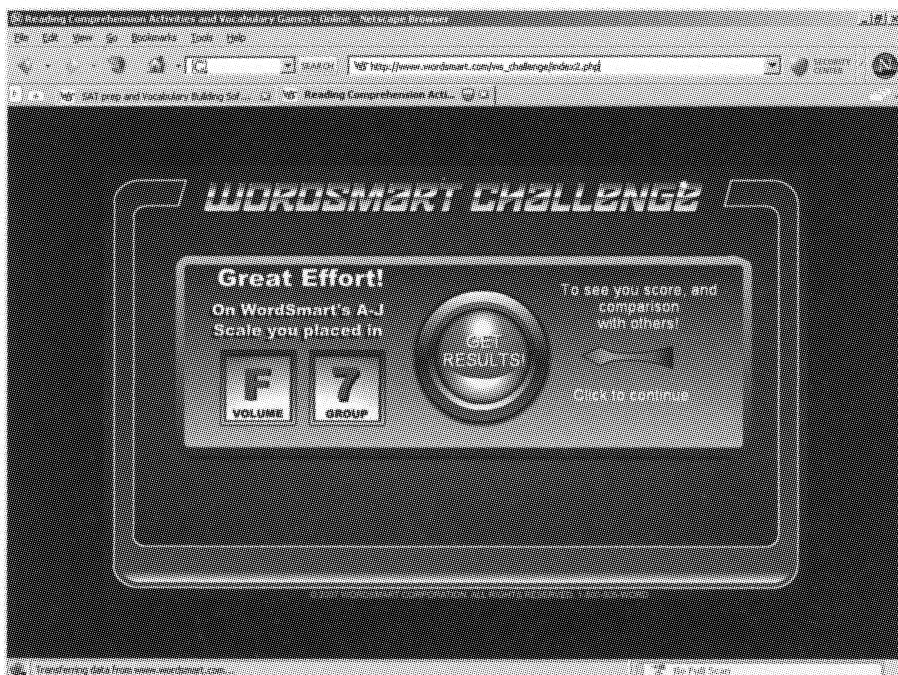

Figure 1.4 Example of *WordSmart*'s level recommendation.

▣ 2 Choose CALL materials that explicitly teach English vocabulary.

CALL programs can teach vocabulary explicitly by presenting new words and then providing learners with practice for learning their meanings. Many techniques—including presentation of images, first-language translations, synonyms, and contexts in which the words appear—are used to draw learners' attention to the new words and to ensure their understanding. Other teaching approaches are used for creating exercises that allow students to test themselves and to practice using the new words.

What the research says

Research indicates that vocabulary must be taught. Learners must be provided with clear definitions, and they must be instructed on the various forms of related words. Explicit instruction may direct students to engage in a variety of cognitive strategies, including directing their attention to words and their precise meanings, repetition, and memorization. Researchers who have studied the processes that successful students use for vocabulary learning have found that strategies for directing attention and memorizing words are among those that help most (Gu, 2003). Other researchers, such as Folse (2004), have claimed that guessing words from context is not the best strategy for learning second-language vocabulary. Nassaji (2003) concluded that learners often guess incorrectly when they are left on their own to infer word meanings, and that guessing can result in imprecise or incorrect word knowledge, or no learning at all. Others have suggested that explicit instruction should include vocabulary production. Schmitt and Zimmerman (2002) found that learners may comprehend the general meaning for a single token within a word family but cannot produce the specific forms required in different contexts.

Research on CALL has shown that CALL programs can be effective for explicit vocabulary teaching. Atkinson (1972) found procedures in computer-assisted vocabulary instruction for optimizing learning through systematic presentation and practice of vocabulary. Tozcu and Coady's (2004) research showed that computer-assisted vocabulary instruction increased vocabulary learning as well as reading comprehension more than extensive reading alone. These studies demonstrate the promise of systematic vocabulary instruction through technology that can be carried out by future CALL developers and researchers.

What the teacher can do

Teachers can use CALL programs and Web sites that include vocabulary illustration, explanation, and practice. One benefit of multimedia CALL is that pictures, words, and sounds are all available to learners. Teachers can introduce students to dictionaries, as shown in Figure 1.5 on page 18. Another way that students can interact with a program for vocabulary study is by creating their own word lists, shown in Figure 1.6 on page 19. Still another approach to teaching vocabulary is to introduce and practice it in a meaningful context, as shown in Figure 1.7 on page 20. These examples show some of the many ways that CALL can help to teach vocabulary explicitly.

Material	*8 in 1 English Dictionary* from English Computerized Learning, Inc.
Level	Adult Literacy/Beginner
Description	The English dictionary program in Figure 1.5 provides learners with definitions, pictures, and translations in twelve languages. Learners can search for words by letter (as shown in the figure), themes, or sounds. The plurals of nouns are given and verbs are conjugated. Learners can also listen to the pronunciations, and record and playback their own pronunciations.
Web site	http://www.englishelearning.com/en/8in1.html
Notes	Translations are in Arabic, Chinese, French, German, Japanese, Korean, Polish, Portuguese, Russian, Spanish, and Vietnamese. Demonstrations of this commercial program from English Computerized Learning, Inc., are available at the Web site above.

Figure 1.5 Example of vocabulary practice with Arabic translations in *8 in 1 English Dictionary.*

Material   *Vocaboly*

Level   Intermediate to Advanced

Description   This vocabulary program lets the user select a pool of vocabulary to study. Words can be added to the study cards seen at the bottom of the screen so students can work on just those words. In Figure 1.6, TOEFL® vocabulary has been selected. The "free study" mode has also been selected. On this screen, the student can click on the phonetic transcription to hear each word pronounced. Students can assign a difficulty level from 0 to 5 to each word, and can study only words at a certain level. As illustrated in the left-hand column, this program provides students with seven types of interactive vocabulary exercises in three areas—study, test, and game. In the exercises, students work with sound, spelling, and meaning.

Web site   http://www.vocaboly.com/

Notes   Three hundred words each are targeted from TOEFL®, SAT®, GMAT®, GRE®, and VOA Special English. There are three levels of vocabulary tests online. The sound in the downloadable version is computerized, but if you purchase the program you will get a human voice with an American accent.

Figure 1.6 Example of vocabulary exercises in *Vocaboly.*

Material	*EASY – English Academic Success for You* from *EASY*, the ESL Series
Level	Adult Literacy/Beginner
Description	This integrated skills CD-ROM includes vocabulary instruction in each unit, using audio, video, and text displayed on the screen. Figure 1.7 is from a unit on health care. In this example, the student clicks on the "play" icon to view a movie that presents key vocabulary; the word *medicine* is introduced on this screen. Every unit begins with an introduction of key vocabulary. Then more vocabulary is introduced throughout the different segments of the unit.
Web site	http://www.easyesol.com/
Notes	This screen is from the CD-ROM for *EASY*, Part 2 Community Essentials, Unit 8 Health Care. Different demos are available online at the address above. This series is also available on VHS video and DVD. Detailed lesson plans, worksheets, and quizzes (on paper) accompany each unit.
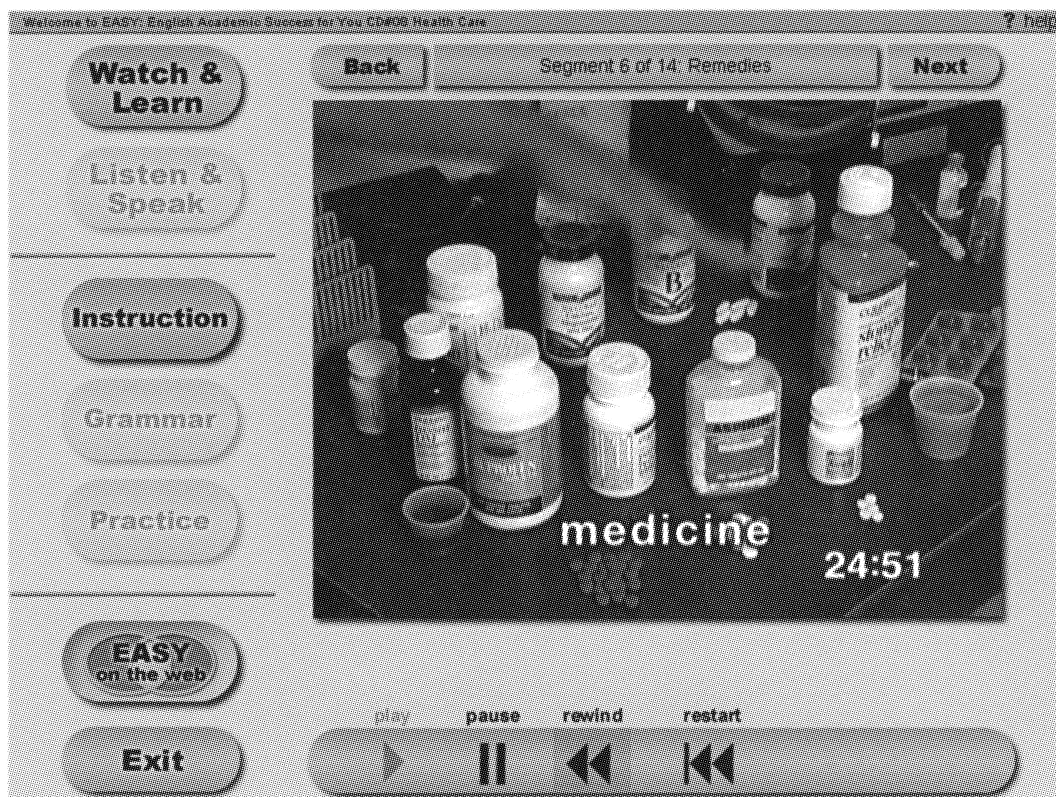
Figure 1.7 Example of the vocabulary introduction in *EASY* health care unit.

3 Provide learners with opportunities for interaction with the computer.

Interaction with the computer for vocabulary learning occurs when learners request a definition of a word in context, and when they engage in practice exercises for vocabulary learning. In both types of interactions, students have the opportunity to see where gaps exist in their vocabulary knowledge. By raising awareness of gaps in knowledge and providing students with help as needed, interactions with the computer can provide an efficient means of teaching vocabulary.

What the research says

CALL programs for vocabulary development help learners improve their vocabulary through interaction with the computer in at least two ways. First, the interactive programs mentioned earlier explicitly present and provide *interactive* practice. Research has shown that such interactions can help students learn second-language vocabulary (Atkinson, 1972; Tozcu & Coady, 2004). Second, a number of studies have found that learners who have access to word definitions while they are reading or listening on the computer are able to remember word meanings. Such activities provide an ideal means of teaching vocabulary in context, rather than having students guess meanings from context. Research suggests that the more types of help that students use (e.g., verbal help and imagery rather than verbal help alone) the better for their vocabulary acquisition (Yoshii & Flaitz, 2002). In short, more interaction is better for learning words, and CALL provides some useful types of interactions by offering learners a variety of help.

What the teacher can do

Teachers can choose CALL activities that engage students in vocabulary practice. One type of program uses vocabulary as the foundation on which to build phrases and then sentences, as illustrated in Figure 1.8 on page 22. Other CALL multimedia programs provide online vocabulary support and include a section that reinforces the vocabulary that was incorporated into a story that learners watched. Figure 1.9 on page 23 illustrates one such program. One major benefit of programs like this is that vocabulary that has been presented in context is reinforced with synonym practice. In both types of programs, students practice vocabulary by linking sounds, spellings, and meanings. They make choices and are told by the computer program whether their answers are correct. Teachers can recycle the words that students practice in their CALL material in the classroom, providing opportunities for repeated exposure to the input.

Material	*Rosetta Stone*
Level	Beginner to High Intermediate
Description	This program uses pictures to establish relationships with spoken and written words rather than relying on translations. Figure 1.8 is an example of a screen that students see in Level 1, Unit 1. In this segment, students can practice new vocabulary that they see, and they can also click on the words to hear them pronounced.
Web site	http://www2.rosettastone.com/en/
Notes	The commercial software is available in thirty different languages and it contains a variety of activities, including listening, speaking, reading, and writing. The Web site for *Rosetta Stone* has two downloadable demos: a brief online version and a fully functional version in all thirty languages.

Figure 1.8 Example of the initial vocabulary instruction in *Rosetta Stone.*

Material	*Longman English Interactive 3* from Pearson Education, Inc.
Level	High Intermediate
Description	In this vocabulary exercise, students work with vocabulary that they first heard in an accompanying video. As shown in Figure 1.9, students are given two choices and are instructed to click on a synonym of the key word. Then, students check the accuracy of their answers. Students can click on "Vocabulary Help" to see definitions of the vocabulary as well as example sentences.
Web site	http://www.pearsonlongman.com/ae/multimedia/
Notes	This screen shot was taken from American English, Lesson 2 of the software. You can take a "demo tour" of this commercial program or download complete sample units of the CD-ROM from the address above.
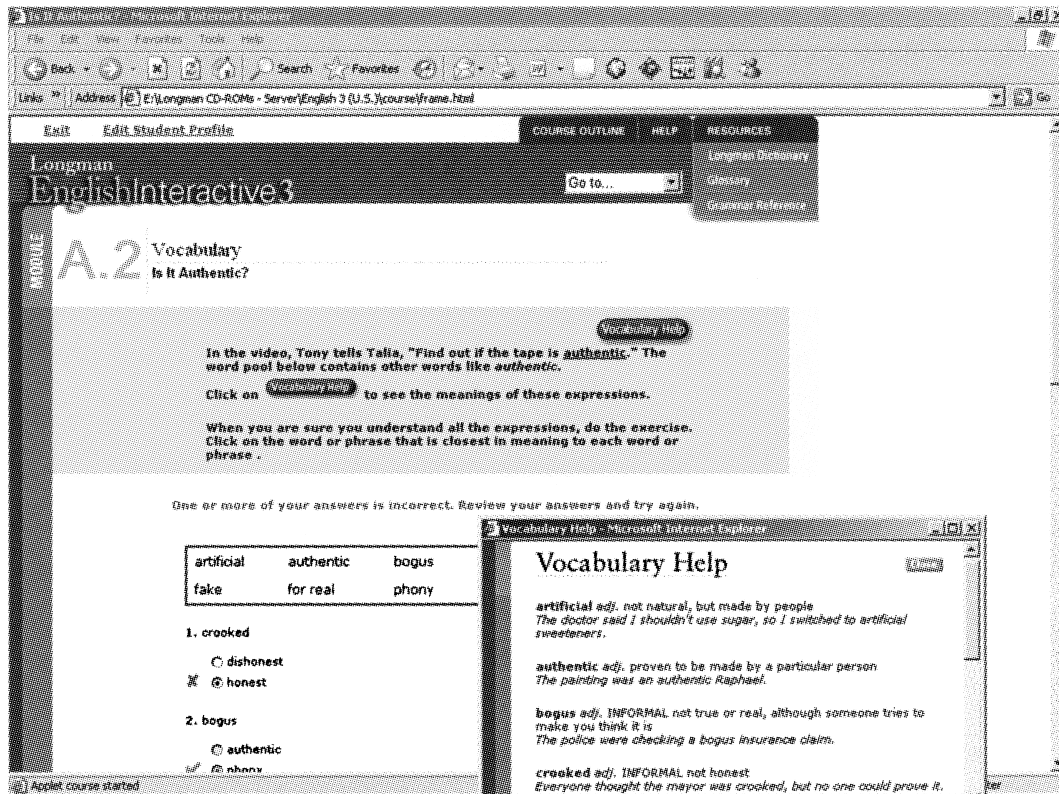
Figure 1.9 Example of a practice activity for vocabulary learning in *LEI 3*.

4 Let the vocabulary tasks spark interaction among learners.

Most CALL programs that introduce new vocabulary can be extended into discussions between pairs of learners to provide additional practice with the new words as well as opportunities for interaction. In particular, vocabulary games on the computer are useful for helping stimulate conversation about vocabulary. In such conversations, learners help each other, thereby stretching each other's competence. The computer keeps the conversation moving by providing learners with immediate feedback on the accuracy of their answers.
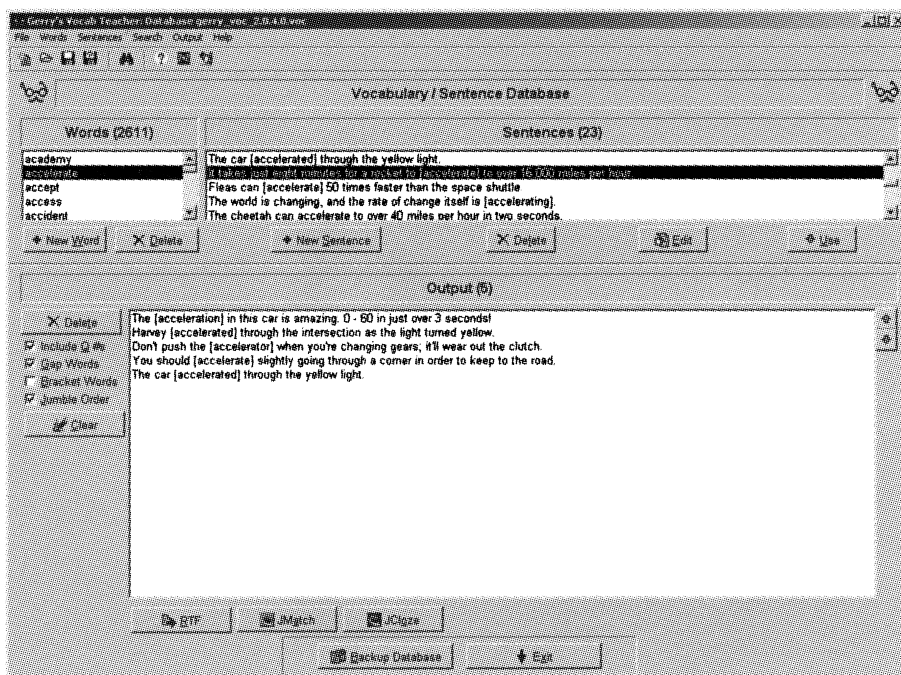
What the research says

Research on collaborative tasks in the classroom has shown that learners can help each other with vocabulary that appears in the reading materials when they work together (Klingner & Vaughn, 2000). Collaborations can also be developed around CALL activities. In some studies, the focus of an activity is a set of vocabulary words (e.g., items on a shopping list), but as long as the students are targeting a goal or product as an outcome to their collaboration, they are likely to encounter and focus their attention on new vocabulary. Research on collaborations in CALL has shown that students can learn new vocabulary through computer-mediated communication if tasks are specifically focused around the targeted lexical items (Smith, 2004). However, if students are to learn vocabulary from reading or listening input through collaboration, computer-provided help functions will be more important than collaboration among the learners (Jones, 2006). In other words, the types of interactions described in Tip 3 are the most important for vocabulary learning even if collaborations are useful for practicing speaking and engaging with the input in a way that increases comprehension.
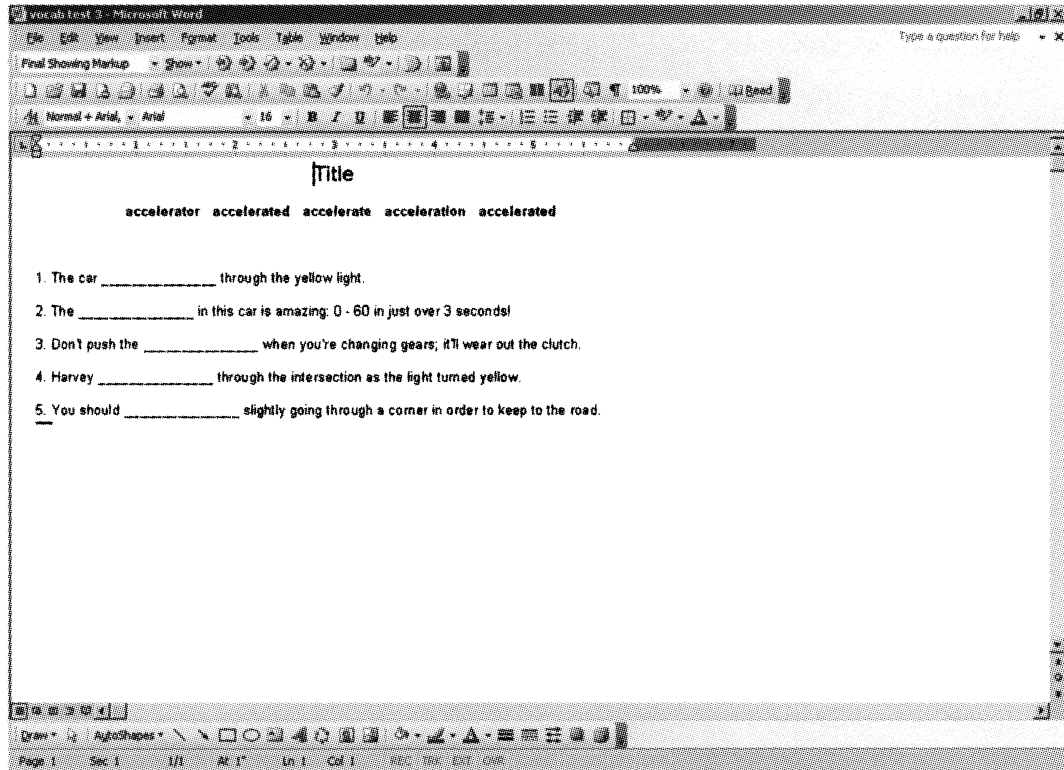
What the teacher can do

Teachers can choose vocabulary activities and games that provide learners with vocabulary practice that complements other things they are working on in class. When preteaching vocabulary, teachers can have students work together in pairs at the computer, looking at sentences from a corpus that contain key words. Teachers may then ask students to guess the meanings and check their guesses against dictionary meanings. This type of activity is illustrated in Figures 1.10 and 1.11. Students can be asked to print the final page or note their score so teachers can check on the outcomes. Teachers can also pair students to complete vocabulary games such as those shown in Figures 1.12 and 1.13 on pages 27 and 28. Vocabulary practiced in games or online activities should be recycled in future classroom activities. Interaction during the games is only one part of the process of learning vocabulary.

Material	*Gerry's Vocabulary Teacher* from CPR4ESL
Level	Intermediate to Advanced
Description	This program provides lists of key words that are each used in at least ten sample sentences. In the Help section, Gerry suggests grouping students in twos or threes and giving them a set of key words in context. Students can make their own definitions, or be given additional sentences with the words blanked out so that they have to deduce the meanings to fill in the blanks correctly in the other sentences. In Figure 1.10, sentences containing forms of *accelerate* were selected and moved to the output window. The sentences in the output window were automatically formatted into the exercise in Figure 1.11 by clicking "RTF" and opening the file in Microsoft Word.
Web site	http://www.cpr4esl.com/gvthomepage.htm
Notes	A demo version of this British English commercial software program can be downloaded from the Web site above. It includes the first half of the alphabet, and it allows users to create exercises of up to five sentences. A complete version of the software is available for purchase on the Web site.

Figure 1.10 Example of a vocabulary in context selection from *Gerry's Vocabulary Teacher.*

Title

accelerator   accelerated   accelerate   acceleration   accelerated

1. The car _____ through the yellow light.

2. The _____ in this car is amazing: 0 - 60 in just over 3 seconds!

3. Don't push the _____ when you're changing gears; it'll wear out the clutch.

4. Harvey _____ through the intersection as the light turned yellow.

5. You should _____ slightly going through a corner in order to keep to the road.

Figure 1.11 Example of a cloze exercise created from output in *Gerry's Vocabulary Teacher.*

|	
Material	*Crossword Puzzles for ESL Students* from *The Internet TESL Journal*
Level	Beginning to High Intermediate
Description	The *Internet TESL Journal* offers a variety of crossword puzzles that students can work on in pairs to spark interaction between learners. Teams can work on the same puzzle and compete to try to finish it first. In Figure 1.12, two screen shots are displayed. On the left, the easy puzzles are listed. On the right, students click on a number to get the clue. Then they type the word in the box and press "Enter." Four words of puzzle 1 have been entered.
Web site	http://iteslj.org/cw/
Notes	This free Web site has crossword puzzles that range in level from easy to difficult. It also links to Activities for ESL/EFL Students (http://a4esl.org/), which has vocabulary quizzes that students can complete in pairs.
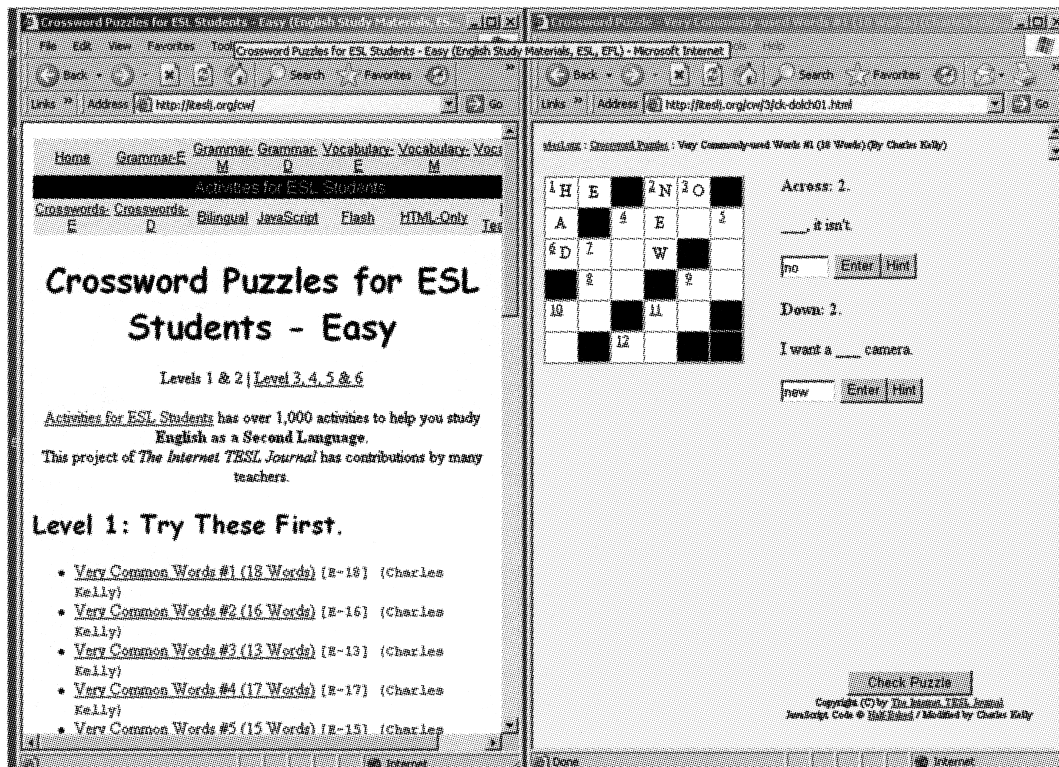
Figure 1.12 Example of crossword puzzles from *The Internet TESL Journal.*

| **Material**	*Lingonet*
Level	High Intermediate to Advanced
Description	In the puzzle shown in Figure 1.13, students work together to brainstorm words about actions, people, places, or things in a hotel room in order to fill in the blanks. The learners can get clues about the correct answer by clicking on the red banks at the bottom of the screen.
Web site	http://www.lingonet.com
Notes	This free set of British English word puzzles is based on the idea that words are learned by association with a common setting or situation. From the *Lingonet* home page, send an e-mail to get a password. Once you receive your password, download the *Lingonet* demo (taster.exe) and any other puzzles. There are fifty downloadable *Lingonet* puzzles on topics such as business, hobbies, places, and technology.

💿 **For a demonstration of students using this program, see the CD-ROM at the back of this book.**
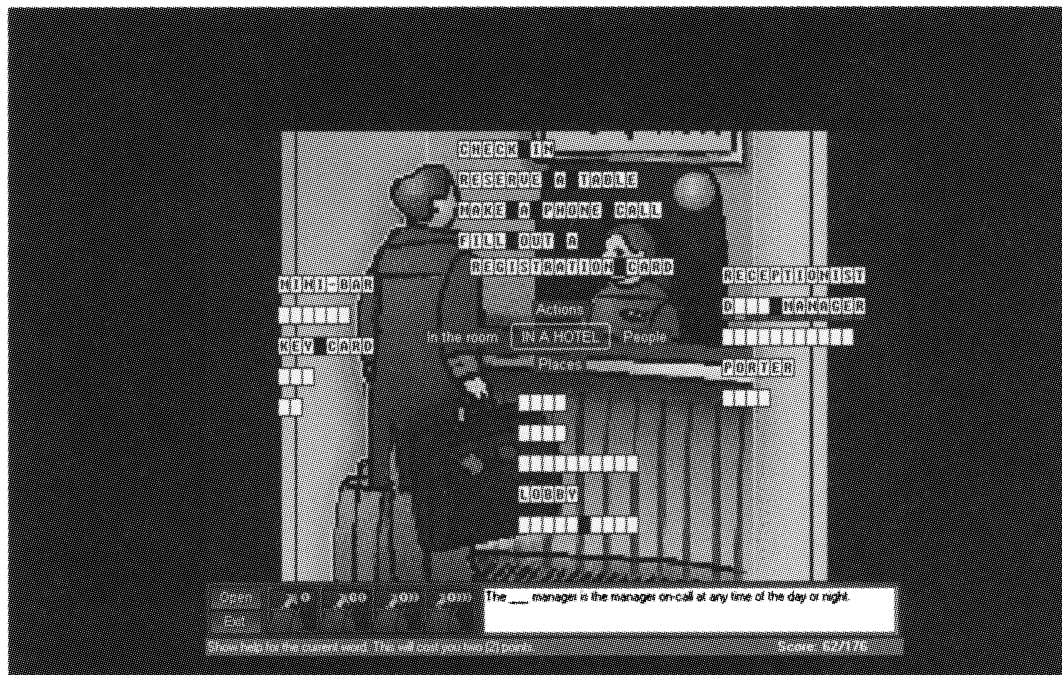
Figure 1.13 Example of a puzzle based on things in a hotel from *Lingonet.*

5 Include regular evaluations of answers and summaries of performance.

Many CALL programs include assessment of students' vocabulary achievement on words that were taught in the program. Students take these quizzes and tests and the programs record their scores so they can see how successful they have been. If assessment is not provided for the vocabulary that has been taught, teachers should make vocabulary quizzes, and inform learners about the dates of the quizzes so that they can study.

What the research says

Research is needed to demonstrate how evaluation affects vocabulary learning, but based on the experience of most teachers, we know that assessments help to focus students' attention on explicit study of vocabulary, and this is an important use of classroom evaluation. Read (2000) points out the need to use vocabulary assessment in a way that supports program objectives; the explicit assessment of vocabulary can help students see the importance of vocabulary study. Vocabulary assessments are included as part of many CALL activities.

What the teacher can do

Teachers can select CALL programs that include vocabulary assessment at the end of practice exercises (such as the program shown in Figure 1.14 on page 30) and at the end of units (as shown in Figure 1.15 on page 31). One benefit of end-of-study assessments is that they provide both the student and the teacher with a score that represents how well the student remembered the meanings of words they spent time practicing. Another benefit is that its inclusion in assessment and score reporting highlights the importance of vocabulary to both teacher and student.

|	
Material	*Vocabster* from Edulang
Level	Beginning to Intermediate
Description	In this vocabulary program, when a student works on an exercise, he or she can check each answer. The program determines the accuracy of an answer, and gives the correct answer. At the end of the exercise, the student can ask to have it "graded." A connected program for the teacher keeps track of student performance. These last two features of evaluation and summary of performance are displayed in Figure 1.14. Here we can see the actual items a student worked on (correct answers in green and incorrect answers in red) and the summary of the results.
Web site	http://www.vocabster.com/
Notes	Teachers might consider both topic and level in order to decide what to use in class. It might take students fifteen to twenty-five minutes to work through one topic. This program also permits teachers to add their own vocabulary words, exercises, pictures, and audio by using an authoring tool. Demos of this commercial software can be downloaded after filling out a form at the Web site above.
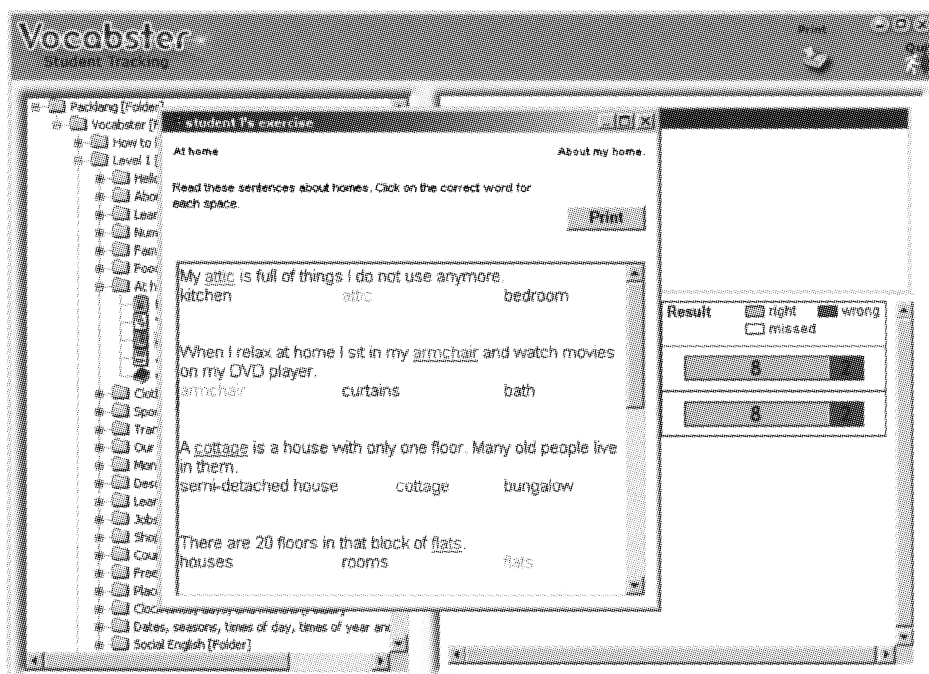
Figure 1.14 Example of an evaluation at the end of an exercise in *Vocabster*.