

## CHAPTER 50

# CURRENT PERSPECTIVES ON VOCABULARY TEACHING AND LEARNING

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### ABSTRACT

This chapter reviews key vocabulary research and draws a number of teaching and learning implications from that research. Lexical areas addressed include the amount of vocabulary required to use English, what it means to know and learn a word, the incremental nature of vocabulary acquisition, the role of memory in vocabulary learning, incidental and intentional vocabulary learning, techniques for effective vocabulary teaching, and the role of learning strategies in vocabulary acquisition. The insights and techniques discussed in this chapter can help teachers develop more principled, and hopefully more effective, vocabulary programs for their students.

### INTRODUCTION

Reflecting the generally buoyant state of second language vocabulary research at the moment, there have been a number of recent commentaries summarizing researched pedagogical suggestions for vocabulary teaching (e.g., Hunt & Beglar, 1998; Nation & Meara, 2002; Sökmen, 1997). This chapter highlights some of the key insights from these and other sources and aims to provide tangible advice on how to teach vocabulary in a principled and effective manner.

### THE VOCABULARY CHALLENGE FACING ESL LEARNERS

Before teachers can design principled vocabulary programs for their students, they first need to understand the vocabulary challenge facing learners of English. English probably contains the greatest number of words of any major language, which makes learning a sufficient amount of its vocabulary a formidable task. Many other languages routinely create new words by either combining two or more simpler words together into one longer compound word (like German) or by adding regular affixes to a word in order to make a new one (like Spanish). In these languages, learners can create and understand a large number of new words simply by knowing the systems underlying lexical construction. English utilizes similar systems to some degree, but to a large extent learners have to acquire considerable numbers of words that are not systematically transparent. For example, Germans might say *herzlich* (*herz* = heart and *lich* = like) to express the concept *warm-hearted*, while in English, learners would have to know and choose between a number of near-synonyms like *cordial*, *convivial*, *enthusiastic*, and others.<sup>1</sup> Learning this vocabulary will likely

form a key constraint to how well English is eventually mastered (Nation & Meara, 2002).

However, the difficulty in learning English vocabulary should be put in context. Out of the 54,000 or so word families appearing in *Webster's Third New International Dictionary* (1961), even educated native speakers will know only a fraction, perhaps up to around 20,000 word families (Goulden, Nation, & Read, 1990). Although this is probably an unrealistic figure for all but the most motivated learners, the good news is that it is possible to function in English with vocabularies far smaller than this. We know that in order to participate in basic everyday oral communication, knowledge of the most frequent 2,000-3,000 word families in English provides the bulk of the lexical resources required (Adolphs & Schmitt, 2003; Schonell et al., 1956). The vocabulary in the 2,000-3,000 frequency band provides additional material for spoken discourse, but additionally, knowledge of around 3,000 families is the threshold that should allow learners to *begin* to read authentic texts. Most research indicates that knowledge of the most frequent 5,000 word families should provide enough vocabulary to enable learners to read authentic texts. Of course, many words will still be unknown, but this level of knowledge should allow learners to infer the meaning of many of the novel words from context and to understand most of the communicative content of the text. Second language learners with a knowledge of the most frequent 10,000 word families in English can be considered to have a wide vocabulary, and Hazenbarg and Hulstijn (1996) found that a vocabulary of this magnitude may be required to cope with the challenges of university study in a second language.

The figures mentioned above are achievable, and many learners are successful in reaching such levels. These statistics are useful in giving size targets that students need to achieve in order to be able to function in English in various ways, but they don't tell us *which* words the students need to know. In some situations, the particular words to teach are obvious. For example, beginners in a classroom need, among other things, the words required to operate in a classroom setting, e.g., *book*, *pencil*, *read*, and *say*. ESP learners focusing on a specific field of study, e.g., medicine, will need to learn the technical vocabulary required in that field (*scalpel*, *femur*). This situationally based vocabulary and technical vocabulary are obvious targets for vocabulary teaching, but it is less obvious which vocabulary to teach if the goal is a general increase in vocabulary size. In this case, the best criterion we have to guide target word selection is frequency of occurrence. Words occurring frequently in English are typically the most useful and the first acquired by students. The usefulness of frequent words has much to do with text coverage. Nation and Waring (1997, p. 9) show how knowing a small number of words in English allows coverage of a large proportion of a typical written text (Table 1). Spoken discourse generally has less diversity when it comes to vocabulary, and so 2,000 word families will cover around 95% of typical speech (Adolphs & Schmitt, 2003). Clearly, the most frequent words in English are an essential foundation to all language use and need to be learned regardless of the effort.

Table 1. Vocabulary Size and Text Coverage of Written Discourse

Vocabulary size in Lemmas (stem words and inflected forms)	Text coverage
1,000	72.0%
2,000	79.7%
3,000	84.0%
4,000	86.8%
5,000	88.7%
6,000	89.9%
15,851	97.8%

Note: Adapted from Nation, P., and Waring, R. (1997). Vocabulary size, text coverage and word lists. In N. Schmitt & M. McCarthy (Eds.), *Vocabulary: Description, acquisition and pedagogy* (p. 9). Cambridge: Cambridge University Press. Copyright year by the name of the copyright holder. Adapted with permission.

In addition to learning a wide and varied vocabulary of individual words, English learners must also cope with a great number of multiword units (Moon, 1997, 1998; Wray, 2002). English has a large number of these multiple-word-item lexemes that behave as a single word with a single meaning (e.g., *pass away*, *bite the dust*, *kick the bucket*, and *give up the ghost* all meaning *to die*). There are a number of different kinds of multiword units, including compound words (*playpen*), phrasal verbs (*give up*), fixed phrases (*ladies and gentlemen*), idioms (*put your nose to the grindstone*), and proverbs (*A stitch in time saves nine*). Although it is certainly possible to be communicative without using these multiword units, they are a large part of what makes proficient English speakers sound natural. Once a learner reaches a proficiency level where appropriateness of usage becomes a major concern, then mastery of these multiword units becomes essential to understanding and producing nativelike idiomatic language. In addition, once these multiword units are in place in the memory as whole chunks, they can facilitate fluent language use, because they are preassembled and do not need to be generated online via grammar rules and lexical choice (Pawley & Syder, 1983).

## ISSUES IN VOCABULARY LEARNING

### *What Does Learning a Word Entail?: Word Knowledge*

Perhaps the first step to understanding vocabulary learning is to specify what it means to know a word. The average layperson would probably assume that if learners know a word's meaning and spelling/pronunciation, they know that word. In fact, learners may be able to use a word to a large extent with just such knowledge. However, in order to have full mastery of a word and to be able to employ it in any situation that the learner desires, then much more knowledge is necessary. Nation (2001, p. 27) gives the following description of truly knowing a word:

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Form		
spoken	R	What does the word sound like?
	P	How is the word pronounced?
written	R	What does the word look like?
	P	How is the word written and spelled?
word parts	R	What parts are recognizable in this word?
	P	What word parts are needed to express this meaning?
Meaning		
form and meaning	R	What meaning does this word form signal?
	P	What word form can be used to express this meaning?
concept and referents	R	What is included in the concept?
	P	What items can the concept refer to?
associations	R	What other words does this make us think of?
	P	What other words could we use instead of this one?
Use		
grammatical functions	R	In what patterns does the word occur?
	P	In what patterns must we use this word?
collocations	R	What words or types of words occur with this one?
	P	What words or types of words must we use with this one?
constraints on use (register, frequency...)	R	Where, when, and how often would we expect to meet this word?
	P	Where, when, and how often can we use this word?
R = receptive knowledge		
P = productive knowledge		

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Note: From Nation, P. (2001). *Learning vocabulary in another language* (p. 27). Cambridge: Cambridge University Press. Copyright year by the name of copyright holder. Reprinted with permission.

As can be seen by this listing, true mastery of a word involves knowing a variety of *word knowledge* aspects. The more aspects of word knowledge we know about a word, the more likely we will be able to use it in the right contexts in an appropriate manner.

### ***The Incremental Nature of Vocabulary Learning***

Complete mastery of all of the above kinds of word knowledge obviously cannot be achieved simultaneously. Although we have only the vaguest idea of how some of these word knowledge types are acquired (e.g., collocation and register), it seems clear that certain types are learned before others. For example, Bahns and Eldav (1993) found that their subjects' collocational knowledge lagged behind their general vocabulary knowledge. Advanced learners studied by Schmitt (1998) had little problem with spelling regardless of what else they knew about the words, suggesting that this is one of the first aspects of lexical knowledge to be mastered by

these students. Likewise, just because some word knowledge aspects are known doesn't necessarily mean that others will be. Schmitt and Zimmerman (2002) found that even advanced learners who knew one form of a word (e.g., *philosophy*) did not necessarily know all of the other members of its word family (*philosophize*, *philosophical*, *philosophically*). Also, learners might know the core meaning sense of a word, but they are unlikely to know all of the other possible meaning senses (Schmitt, 1998). Thus, learning a word must be an incremental process, as the various types of word knowledge are mastered at different rates. It follows from this that each of the word knowledge types will be known at different degrees of mastery at any one point in time. One useful way to conceptualize this mastery is along a continuum for each word knowledge aspect. Even an aspect as seemingly basic as spelling is likely to be learned incrementally, along a cline something like the following (although progress along the cline may be swift):

Can't spell <i>word at all</i>	knows some <i>letters</i>	phonologically <i>correct</i>	fully correct <i>spelling</i>
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From this, we see that vocabulary acquisition is not only incremental but also incremental in a variety of ways. First, lexical knowledge is made up of different kinds of word knowledge, and not all can be learned simultaneously. Second, each word knowledge type may develop along a cline, which means that not only is word learning incremental in general; learning of the individual word knowledge aspects is as well. In addition, each word knowledge type may be receptively or productively known regardless of the degree of mastery of the others. Taken together, these conclusions indicate that word learning is a complicated but gradual process.

### RECYCLING, REVISION, AND MEMORY

The fact that vocabulary is learned incrementally inevitably leads to the implication that words must be met and used multiple times to be truly learned. The number of exposures/usages necessary will depend on a number of factors, including how salient the word itself is, how necessary the word is for a learner's present needs, and whether the word is met incidentally while pursuing some other purpose or studied with the explicit goal of learning it. It is possible, however, to look at research and get some idea of the number of repetitions necessary. Certainly, once is not usually enough. For incidental exposure, the chances of learning and retaining a word from one exposure when reading are only about 5%-14% (Nagy, 1997). Nation (1990) reviewed a number of studies suggesting that from 5 to 16 or more repetitions are required for a word to be learned. Even a rich program of vocabulary instruction can require seven or more encounters with a word (McKeown, Beck, Omanson, & Pople, 1985). It should be noted that these and other vocabulary studies set a relatively restricted criterion for the achievement of learning (usually focusing on meaning), and mastery of all word knowledge aspects undoubtedly requires a much higher number of repetitions.

It follows that regardless of how vocabulary is presented, it must be recycled in order to be learned. One of the great mistakes many teachers make is to focus on a

new word only once, leading to a high probability of that word being forgotten and the time spent on teaching it wasted. Nation (1990) suggests that it is as important to recycle older, partially known words as it is to teach new ones in order to avoid this waste. However, there are more efficient and less efficient schedules for recycling and revision. To understand the best timing for this recurring exposure to words, it is necessary to understand how the mind forgets new information. Typically, most forgetting occurs soon after the end of the learning session. After that major loss, the rate of forgetting decreases. This is illustrated in Figure 1.

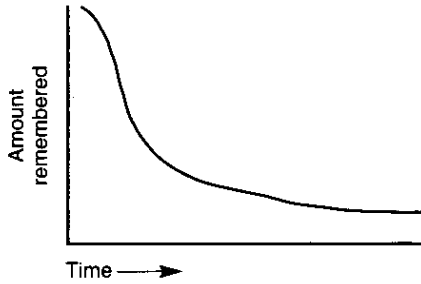


Figure 1. Typical Pattern of Forgetting

Note: From N. Schmitt, (2000). *Vocabulary in language teaching* (p. 131). Cambridge: Cambridge University Press. Copyright year of the name of the copyright holder. Reprinted with permission.

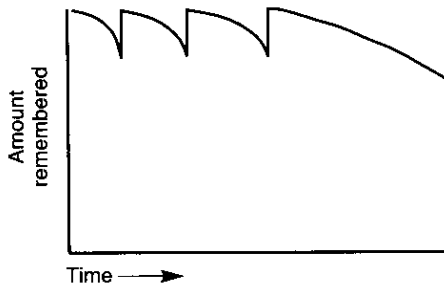


Figure 2. Pattern of Forgetting with Expanded Rehearsal

Note: From N. Schmitt, (2000). *Vocabulary in language teaching* (p. 131). Cambridge: Cambridge University Press. Copyright year of the name of the copyright holder. Reprinted with permission.

The forgetting curve in Figure 1 indicates that it is critical to have a review session soon after the learning session, but less essential as time goes on. This finding suggests that learners should rehearse new material soon after the initial meeting and then at gradually increasing intervals, as illustrated in Figure 2 (Baddeley, 1990, p. 156-158; Pimsleur, 1967). One explicit memory schedule proposes reviews 5-10 minutes after the end of the study period, 24 hours later, one week later, one month later, and finally six months later (Russell, 1979, p. 149). *Expanding rehearsal* schedules like this can aid teachers in recycling vocabulary in

a principled manner but might be most helpful as a guide for students for their own revision (Schmitt & Schmitt, 1995).

### **VOCABULARY TEACHING AND LEARNING IN A PRINCIPLED WAY**

The background in the above sections leads to several observations that are important for vocabulary pedagogy. First, a learner is unlikely to be able to acquire a wide vocabulary (around 10,000 word families) through explicit learning alone. There are simply too many words to learn. Second, learning a more achievable number of word families (2,000-5,000) can provide considerable rewards in the linguistic abilities they support. A significant percentage of this amount of vocabulary can be realistically addressed in an explicit manner over a period of time. Third, the most important words to target for explicit attention are the most frequent words in English.

Combining these points, one can make a cost/benefit calculation (Nation, 1995) concerning what vocabulary to teach. All teaching carries cost, mainly in classroom time, but also in teaching and learning effort. The most frequent words are worth this cost, because they are the essential foundation to any language use. The most frequent 2,000 word families certainly fall into the must-learn category. If learners wish to be able to read in English, then the vocabulary in the 2,000-5,000 frequency band could also be explicitly approached. Beyond this band, words occur less frequently, and learners should concentrate on the specific technical vocabulary they need for specific topics, for example, specialized engineering terminology for engineers. Other than this, time is better spent on developing strategies that enable learners to work with unknown lower-frequency vocabulary on their own. In other words, we should teach high-frequency vocabulary, because there is a high benefit for the cost, while teaching low-frequency vocabulary, which the learner will seldom meet, is not worth the cost. It is better to expend precious classroom time in teaching strategies to students so that they can tackle low-frequency vocabulary independently (frequency lists are available in Leech, Rayson, & Wilson, 2001; West, 1953; and online at <http://www.comp.lancs.ac.uk/ucrel/bncfreq/flists.html>).

In addition to this cost/benefit consideration, any single method of vocabulary learning will not address all of the word knowledge aspects that are required for full vocabulary use. We can explicitly address some aspects, like meaning and grammatical characteristics, but aspects like collocation, register, and intuitions of frequency are only ever likely to be mastered through extensive exposure to the target word in many different contexts. Thus any vocabulary program needs two strands: an explicit strand to present the teachable word knowledge aspects of high-value words and an incidental learning strand where (a) those words are consolidated and more is learned about them, and (b) a multitude of other new words are met.

#### ***Facilitating the Incidental Learning Strand***

One key to facilitating incidental learning is to maximize learners' exposure to English. This can be done orally in a number of ways: (a) maximizing the amount of English used in the classroom; (b) using group work, where learners can learn new words from each other during their interactive discussions (not all members of a group will know the same words) (Newton, 2001); (c) encouraging communication

with proficient English users whenever possible; and (d) spending time in an English-speaking country or environment.

The most effective way to learn English is undoubtedly to live in an English-speaking country for a period of time: Milton and Meara (1995) found that learners living in the UK for six months improved their vocabulary by an average of 1,326 words. However, this approach is unrealistic for most students. Moreover, in many EFL situations, access to any spoken English may be severely limited. Thus, reading has traditionally been promoted as the most practical way to increase a learner's exposure to English.

For beginning learners, graded readers are a good way to start. Although graded readers have been criticized in the past for being boring and containing stilted language, modern graded series are generally well written and contain a diverse enough range of titles to engage virtually any student (see, for example, the *Cambridge English Readers* series, the *Oxford Bookworms* library, and Pearson's *Penguin Readers*). These readers have the advantage of providing considerable language input at an early stage of a learner's development, helping to improve reading skills as well as vocabulary, and hopefully starting a long-term reading habit in the L2.

As their proficiency increases, learners will naturally wish to move on to authentic texts. The jump from graded readers to authentic texts can sometimes be a large one, and a good way of easing this transition is with *narrow reading*. Narrow reading entails reading numerous texts but all on the same topic. Reading on one subject means that much of the topic-specific vocabulary will be repeated throughout the course of reading, which both makes the reading easier and gives the reader a better chance of learning this recurring vocabulary (Schmitt & Carter, 2000). Narrow reading can be achieved by following a continuing story in a newspaper, by reading magazines focusing on a particular topic, or, longer term, by engaging in content-based teaching. Once students have a foundation of reading skills, the best way to increase language input is through *extensive reading*. Extensive reading simply means reading a lot, and research suggests that it is very effective in terms of increasing general language proficiency (Elley, 1991).

In addition to promoting language input, teachers can equip learners to cope with the vocabulary they meet in this input by helping them to develop appropriate strategies. Guessing from context and choosing which words to explicitly focus upon are two obvious strategies learners will need in their repertoire. Other vocabulary learning strategies will be discussed below in the Strategies section. In sum, both the promotion of reading and instruction in key strategies are vital parts of the incidental learning strand and will thus be important components of any principled vocabulary program.

## ***Facilitating Intentional Learning of Vocabulary***

### ***The Learning of Word Pairs***

Although vocabulary is incremental in nature, it is obvious that the learner has to start someplace. Since all word knowledge aspects cannot be learned on the initial meeting, one reasonable way to start is by focusing on the meaning and word form aspects of a word first. Using word pairs is a good way to achieve this. The word pairs could be translation equivalents (English *dog* – Japanese *inu*), paired associates




in English (*spur – encourage*), or word-picture pairs. Research has shown that students can successfully learn large numbers of words using this technique and that the learning seems to be durable (Nation, 2001, p. 298). A good way to use word pairs is to look at only one word in the pair and try to retrieve the other, because each retrieval strengthens the connection between the form of the word and its meaning (Nation & Meara, 2002). Word pairs have often been criticized for not giving words in context, but it seems the main problem is the way they are often employed by teachers: assigning word pairs as homework, perhaps testing them the next session, and then never returning to them. There seems no reason why learners should not get their initial introduction to new words on their own time via word pair homework, but teachers should then consolidate and enrich this initial knowledge with contextualized practice in subsequent classroom sessions.

### ***Teaching Groups of Words Together and Cross-association***

A well-known psychological principle is that organized information is easier to learn than unorganized information. This finding would suggest that grouping similar words together when learning should be beneficial. However, this is only true if the words are already partially known. Teaching similar words together in the first instance can lead to learner confusion, because students learn the word forms and learn the meanings, but can confuse which goes with which (*cross-association*). For example, if learners are taught the antonyms *deep* and *shallow* together, most are likely to remember that one concept is *relatively great depth* and the other concept is *relatively little depth*, but a significant number of them may confuse which word goes with which concept. Even native speakers often cross-associate similar words like *affect* and *effect*, or *inductive* and *deductive*. Antonyms are particularly prone to cross-association, because they tend to come in pairs like *noisy/quiet* or *hard/soft*, but synonyms and other words from closely related semantic groupings (e.g. numbers, days of the week) are also at risk. Research shows that cross-association is a serious trap for learners (Higa, 1963; Tinkham, 1993; Waring, 1997), with Nation (1990, p. 47) suggesting that about 25% of similar words taught together are typically cross-associated. He suggests the way to avoid cross-association is to teach the most frequent or useful word of a pair first (e.g., *deep*), and only after it is well established introducing its partner(s) (e.g., *shallow*).

### ***Teaching the Underlying Meaning of a Word***

Many words are polysemous in English, and often some of their different meaning senses have a common underlying trait. *Fork*, as an example, can mean a *fork* to eat with, a *fork* in a road or river, a *tuning fork* for use with music, a *pitch fork* that farmers use to throw hay, or several other things. The *General Service List* (West, 1953) indicates that the meaning sense of *implement used for eating or in gardening* makes up 86% of the occurrences, while *anything so shaped, like a fork in the road*, makes up 12%. This would suggest that *eating fork* is the most important meaning sense, but in this case, we can capture all of the meaning senses by defining the word with a drawing like this: . By defining the underlying meaning concept, we maximize the effect of the teaching by enabling students to understand the word in a much wider variety of contexts. Similarly, Nation (1990, pp. 72-73) suggests that defining *run* with a definition like *go quickly, smoothly, or continuously* is best,

because it covers meaning senses like *the girl ran*, *the road runs up the hill*, and *run a business*.

### ***Teaching Word Families instead of Words***

Teachers can also maximize vocabulary learning by teaching word families instead of individual word forms. Instructors can make it a habit when introducing a new word to mention the other members of its word family. In this way, learners form the habit of considering a word's derivations as a matter of course. To reinforce this habit, teachers may eventually ask students to guess a new word's derivatives at the time of introduction. Including a derivation section as part of assessment also promotes the idea that learning the complete word family is important.

### ***Teaching Word Parts***

Many words in English, particularly academic words, are made up of Latin- and Greek-derived affixes and word stems. Knowledge of the most frequent affixes and stems in English can be a valuable resource with which both to guess the meanings of new words and to help remember the meanings of partially known words. Using a cost/benefit analysis, the explicit teaching of such stems and affixes would appear to be well worth the cost, with Nation (1990) suggesting this is one of the three key strategies learners should know in order to handle low-frequency vocabulary (the other two are guessing from context and mnemonic techniques). He suggests a number of exercises focusing on word parts, ranging from the memorization of prefix lists to classroom exercises focusing on the use of word parts to create new words.

### ***Present Sequences of Words Together***

One of the great insights to come out of corpus research is the overwhelming amount of lexical patterning that exists in English (and probably most other languages as well). Some of these patterning constraints have long been obvious, such as those that exist in idioms and proverbs (*burn the midnight oil*, but not *\*burn the 2 am oil* or *\*consume the midnight oil*). Corpus evidence has now made it possible to see other kinds of lexical patterning as well. This patterning can take the shape of collocational ties between two words (*mingle freely*) where the connection seems to be sequence based rather than being meaning based (*\*mingle unhindered* would make perfect sense semantically, but is not commonly used). Moreover, we find that lexical patterning also exists at a much broader level, where the word choices in sometimes quite long strings of language are constrained lexically:

SOMEONE/SOMETHING *made it plain that* SOMETHING AS YET UNREALIZED WAS  
(often with authority) INTENDED OR DESIRED  
(Schmitt, 2000, p. 189)

Lewis (1997) suggests that the implication of this patterning is that teachers should present words in the classroom in sequences whenever possible. In his publications he provides numerous examples of how this can be done, including the following:

**Exploring a Simple Word**

Do you know the word *book*? Add as many collocates to the following as you can.

Verb	Adjective	Key Word	Preposition
read	interesting	BOOK	about
buy	expensive		on
borrow	academic		for
edit	illustrated		by
publish	absorbing		of
ban	controversial		
lend	amusing		
recommend	hilarious		

Note: From Lewis, M. (1993). *The lexical approach* (p. 119). Hove: LTP. Copyright year by the name of copyright holder. Adapted with permission.

**Other Principles for Explicit Teaching**

Vocabulary research is now booming, and we have many more insights into effective teaching than can be highlighted in this section. Interested readers are encouraged to refer to the following sources, which give a multitude of additional teaching principles: Carter, 1998; Coady & Huckin, 1997; Gairns & Redman, 1986; Hunt & Beglar, 1998; McCarthy, 1990; Nation, 1990, 2001; Nation & Meara, 2002; Schmitt, 2000; Schmitt & Schmitt, 1995; and Sökmen, 1997. A good source for numerous vocabulary teaching activities is *New Ways in Teaching Vocabulary* (Nation, 1994). Teachers may also find it profitable to browse through some of the newer student textbooks (e.g., the *A Way with Words* series), as many contain a wealth of different exercise types that teachers may be able to adapt to their own teaching situations.

**Facilitating Independent Vocabulary Learning: Vocabulary Learning Strategies**

The above section discusses what teachers can do to actively promote vocabulary learning by their students. However, learners can do much to learn vocabulary independently of the teacher and classroom. One of the ways teachers can aid this process is by helping learners become aware of and practiced in using a variety of vocabulary learning strategies. Research shows that many learners do use strategies for learning vocabulary, and some of the more common strategies are simple memorization, repetition, and taking notes on vocabulary. These more mechanical strategies are often favored over more complex ones requiring significant active manipulation of information, such as imagery and inferencing. Because psychologists believe that activities which require more engagement with and manipulation of the information to be learned (*deeper processing*) generally lead to better retention, it seems that instructing learners in deeper processing strategies could lead to more efficient learning. Indeed, research into some deeper strategies, such as forming associations (Cohen & Aphek, 1981) and using the keyword method (Hulstijn, 1997) have been shown to enhance retention better than rote memorization. However, even rote repetition can be effective if students are accustomed to using it (O'Malley & Chamot, 1990). If a generalization can be made,

shallower activities may be more suitable for beginners, because they contain less material that may only distract a novice, while intermediate or advanced learners can benefit from the context usually included in deeper activities (Cohen & Apeh, 1981).

Rather than being used individually, multiple vocabulary learning strategies are often used concurrently. This means that active management of strategy use is important. Good learners do things like use a variety of strategies, structure their vocabulary learning, review and practice target words, and remain aware of the semantic relationships between new and previously learned L2 words. That is, they are conscious of their learning and take steps to regulate it. Poor learners generally lack this awareness and control (Ahmed, 1989; Sanaoui, 1995).

When considering which vocabulary learning strategies to introduce to our students, we need to consider the learners themselves and their overall learning context. Proficiency level seems to be important, with one study showing word lists to be better for beginning students and contextualized words to be better for more advanced students (Cohen & Apeh, 1981). It is also important to gain the cooperation of the learners, because another study showed that students who resisted strategy training learned worse than those who relied on their familiar rote repetition approach (O'Malley & Chamot, 1990). Other factors to consider include the L1 and culture of students, their motivation and purposes for learning the L2, the task and text being used, and the nature of the L2 itself.

There are a few listings of vocabulary learning strategies available, including Ahmed (1989), Cohen (1990), and Sanaoui (1995). One relatively comprehensive listing of these strategies is presented by Schmitt (1997), who includes 58 strategies, divided in five categories. The following sampling provides a flavor of the range of strategies available:

1. *Determination strategies* used by an individual when faced with discovering a new word's meaning without recourse to another person's expertise.
  - Analyze any available pictures or gestures
  - Guess meaning from textual context
  - Use a dictionary (bilingual or monolingual)
2. *Social strategies* involve interaction with other people to improve language learning.
  - Ask the teacher for a synonym, paraphrase, or L1 translation of new word
  - Learn and practice new words with a study group
  - Interact with native-speakers
3. *Memory strategies* (traditionally known as *mnemonics*) involve relating new words to previously learned knowledge, using some form of imagery or grouping.
  - Use semantic maps
  - Use the keyword method
  - Associate a new word with its already known synonyms and antonyms

4. *Cognitive strategies* entail manipulation or transformation of information about words to be learned, although they are not so specifically focused on mental processing as memory strategies.
  - Written repetition
  - Keep a vocabulary notebook
  - Put English labels on physical objects
  
5. *Metacognitive strategies* involve a conscious overview of the learning process and making decisions about planning, monitoring, or evaluating the best ways to study.
  - Use spaced word practice (expanding rehearsal)
  - Test oneself with word tests
  - Continue to study word over time

## CONCLUSIONS

The ideas presented in this chapter are important to consider when developing any vocabulary program. Different learners will obviously need emphasis on different types of words (whether high-frequency or specialized vocabulary), but nearly all students can benefit from a judicious blend of intentional and incidental learning. Even advanced learners with large vocabularies can continue to fill out their lexical knowledge, as many (or most) of the words in their mental lexicons will only be partially mastered. After all, even native speakers continue to learn new words throughout their lifetimes.

## NOTES

- <sup>1</sup>. Thanks to Christina Lee for this example.

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