Levels or Stages of Word Knowledge

JEROME C. BUSH

Framing the Issue

At the heart of the issue is the question of what it means to "know" a word. As an example, take a very common word such as "blue." Most people, even beginning second language students, would say that they know this word, and know it well. However, the idiomatic expressions "feeling blue" and "out of the blue" may not be known. There are also various meanings in different contexts, such as what it means to be a "blue" state in America or the musical genre called "the blues" as if it is a plural noun. Even the color has variations such as navy blue, baby blue, royal blue, or sky blue. The word itself also has variants such as "bluish" and "blueness." This example illustrates that knowing a word is more than being able to recall the definition. In fact, new vocabulary words starting as unknown are learned gradually, through different stages and levels of mastery.

This level of word knowledge is sometimes referred to as the "depth" of vocabulary knowledge. This is often juxtaposed with the "breadth" of vocabulary knowledge, or number of words that are learned or known. Textbooks often focus on adding words to the lexicons of students through the form-meaning connection (Schmitt, 2010). The form-meaning link may be the most important aspect of word knowledge and probably the first aspect of a word that is learned. However, simply knowing the meaning is not always sufficient for accurate and productive use of the target word. Indeed, it may be prudent to consider the establishment of the form-meaning link as the start of vocabulary acquisition, not the end of it.

What is presented here is a summary of the research on the levels or stages of word mastery along with suggestions of how best to develop such mastery. The implication is that while the form-meaning connection is necessary, it is insufficient for developing a strong, productive lexicon. Additionally, it will be suggested that students become autonomous in developing their vocabulary. Given the relative importance of vocabulary in the learning of a second language, teachers should do all they can to teach as many words as possible and teach them as thoroughly as they can. However, it is even more important to impart the strategies and skills with which students can acquire vocabulary on their own.

Making the Case

Depth of word knowledge can be seen as a continuum that ranges from completely unknown to total mastery. Several scales have been developed to measure the depth of word knowledge (Paribakht & Wesche, 1997; Schmitt & Zimmerman, 2002; Laufer, Elder, Hill, & Congdon, 2004). These scales generally start from receptive knowledge, which can go from mere recognition of the fact that the string of letters or sounds forms a word, to being able to understand the word when heard or read in various contexts. At the top end of the scales one will find productive ability, including the ability to use the word in various ways and in a number of different contexts.

One of the most well-known and widely used scales is the vocabulary knowledge scale, or VKS (Paribakht & Wesche, 1997). The scale is essentially a test where students are presented with words they have to rate from one to five according to their perceived level of mastery. For the lower levels (one and two) the self-reported scores are accepted. However, the higher levels require the test-takers to demonstrate their knowledge either by providing a synonym or translation (level three) or using the word in a sentence (levels four and five). This scale interprets the scores as follows:

1. The word is not familiar at all.
2. The word is familiar, but the meaning is not known.
3. A correct synonym or translation is given.
4. The word is used with semantic appropriateness in a sentence.
5. The word is used with semantic appropriateness and grammatical accuracy in a sentence.

It should be noted that several strong criticisms of this scale have been made (Meara, 1996; Bruton, 2009). One of the criticisms is that the scale measures both receptive and productive knowledge, and because these are different constructs, they should be tested separately. Additionally, the levels are portrayed as progressive, but occasionally students learn set phrases and use words they do not fully understand. In those cases, the ability to use the word comes before understanding the meaning. Also, the distance between the levels is arbitrary rather than uniform. Additionally, many people who use the scale modify it in some way, suggesting it is inherently flawed.

In spite of these criticisms, the VKS has been widely used and is still being used today (Dikilitaş & Bush, 2014). This instrument, along with other scales, has done a lot to help describe the levels of word knowledge. This has fundamentally changed the discussion of vocabulary acquisition from how to teach the most words efficiently, to how to raise the consciousness of students about the various aspects of knowing a word.

Two aspects of word knowledge often discussed are receptive and productive knowledge. Receptive knowledge refers to the recognition of words during listening and reading, while productive knowledge has to do with the ability to use words accurately and appropriately in speech and writing. The exact nature of receptive and productive knowledge as well as the distinction between

competence and performance has been hotly debated. Generally, it is accepted that receptive knowledge precedes productive knowledge and that competence can to some degree be inferred from performance.

It should also be noted that productive and receptive vocabulary are not entirely distinct and separate as they draw on the same set of subskills, such as phonology, morphology, semantics and syntactic information (Lado, 1961). In fact, the four skills—listening, reading, writing, and speaking—are seldom completely isolated. For example, a test may have instructions for a student to write sentences using target vocabulary items, which is a productive task. However, the taker must read and understand the instruction first. As the taker is reading the instructions, which is ostensibly receptive, he or she must produce the meaning of the instructions to proceed. Although this task would be called a productive task (writing), it would be impossible without first completing a receptive task (reading). Therefore, receptive and productive skills are not discrete skills as many assume.

In fact, receptive and productive abilities can be seen as being at opposite ends of a continuum. In this perspective, tasks are not either receptive or productive, but more receptive or more productive. Therefore, one does not have a "productive vocabulary" and a "receptive vocabulary," but a single vocabulary with words that exists somewhere along a receptive-productive scale. Additionally, words exist in a context and may be more or less productive depending on the topic, situation, and interlocutors. To put it succinctly, categorizing a word knowledge as either productive or receptive is not so easily done.

This is not to say that the distinction between receptive and productive is unimportant; it clearly is. It is much more difficult to use vocabulary accurately in speaking and writing than it is to recognize and understand while listening or reading. The aspects of receptive understanding and productive ability are representative of differing levels of word knowledge. Through necessity, most vocabulary instruction focuses on the development of receptive understanding and often assumes that students will develop productive ability if they have an understanding of the meaning of the word. Although students do generally develop productive ability, they may have difficulty if they are unassisted by instructors, especially in the use of low-frequency words.

Productive and receptive are not the only aspects of vocabulary knowledge. The aspects of word knowledge are sometimes referred to as the "components" of word knowledge, or the "component approach" to vocabulary acquisition. This approach to word knowledge was first popularized in an article in *TESOL Quarterly* (Richards, 1976). This concept has been refined and expanded by Paul Nation (Nation, 2001). The components of knowing a word are illustrated in Table 1:

According to Nation, complete mastery of a word involves knowing all nine aspects of the word both receptively and productively. However, other researchers have pointed out that many of these categories overlap and the boundaries of each category are unclear. This is true because words are seldom found in isolation. Additionally, pronunciation can produce connotations and in the case of heteronyms, even change meanings entirely. Therefore, while the distinctions presented above are useful, the real picture may be more complicated.

This section intended to show that words are complex and that they interact with each other in a variety of ways. Being able to use a word in every context requires a variety of skills and knowledge and is not a simple task of memorizing a definition. Looking at words from this perspective makes it seem unlikely that full mastery could ever be achieved, even for native speakers. While this could be depressing if taken a certain way, it can also be liberating. English language learners have no need to aspire to complete vocabulary mastery, since it may not be possible. Instead, a curiosity and a love of vocabulary should be fostered. In some sense, exploring new vocabulary could be seen as an advantage. Curious and motivated ELLs can endlessly play with words, fashioning brilliant poetry and prose that will delight people for generations.

Pedagogical Implications

When one considers the other duties of a teacher, one may well despair at the thought of teaching something as complex as vocabulary. However, there are ways to make the task manageable. The first thing is to adopt a strategic perspective. Vocabulary acquisition is a process and a realistic approach recognizes the incremental nature of developing word knowledge (Boyd-Zimmerman, 2009). The fact is that there is a great deal of words, and only limited time in which to teach them. It may be better to think of vocabulary instruction as encouraging learning rather than direct teaching. In other words it may be better to teach students some "word attack strategies" before giving them a list of vocabulary words.

Language learning strategies became popular in the late 1970s and early 1980s as part of a move toward learner-centered instruction. Successful students were observed and patterns of behavior started to emerge. These patterns were eventually analyzed, recorded, categorized and published (Oxford, 1990). Oxford divided language learning strategies into two broad categories, direct and indirect. The direct strategies were further divided into memory, cognitive, and compensation strategies. The subcategories of indirect strategies are metacognitive, affective, and social strategies. Each of the subcategories includes a list of techniques that assist in language learning.

Shortly after Oxford's seminal work, the concept was applied to vocabulary acquisition (Schmitt & Schmitt, 1993; Schmitt N., 1997). Schmitt divided strategies into two broad categories he called discovery strategies and consolidation strategies. The categories are then divided into five subcategories: determination, social, memory, cognitive and metacognitive. Discovery strategies contain the determination and some of the social strategies, the rest are consolidation strategies.

It is useful for students to have a system of dealing with new words as well as a system for increasing knowledge for the words that are already somewhat familiar. The individual strategies in Schmitt's taxonomy are essentially student behaviors. This helps create autonomous learners and empowers students. Classroom time may be better used by teaching students how to learn vocabulary rather than

Table 1 The components of knowing a word. Adapted from Nation (2001, p. 27).

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 spelled?
	Word parts	R—What parts are recognizable in this word?
		P—What word parts are needed to express the 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	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, "P" = productive

teaching individual words. Excerpts from Schmitt's taxonomy are in Table 2. The full taxonomy as well as a wealth of other material is generously made freely available online at http://www.norbertschmitt.co.uk/.

As was previously mentioned, learning vocabulary is a complex process, but it is more complex for some words than for others. In other words, some words are more difficult to learn. The level of difficulty for learning a word is called the learning burden (Nation, 2001, p. 23). Several factors lead to a word being more difficult to learn. Words that have different patterns or require new knowledge are more difficult to learn. This means that linguistic distance is important in vocabulary acquisition. Learners who have a first language (or know an additional language) that are similar to the one being learned will have an easier time learning vocabulary. However, if the target language and previously known languages are dissimilar, it will be more difficult to learn new words. Teachers who have students from a variety of linguistic backgrounds should be aware that some of the students will have an easy time learning new words and others will struggle.

In addition to linguistic difference, the nature of some words makes them easier or more difficult to learn. For example, concrete nouns (examples: chair, banana)

Table 2 Excerpts from Schmitt's taxonomy of vocabulary learnings strategies (VLS).

Category	Subcategory	Strategy
Discovery	Determination	Analyze part of speech
		Analyze affixes and roots
		Check for L1 cognate
		Guess from context
		Consult dictionary
		Use word lists
	Social	Ask the teacher
		Ask classmates
		Group work
Consolidation		Study/practice the word in a group
		Teacher checks word lists
		Interaction with native speakers
	Memory	Image of word meaning
		Connect to related words
		Group words together
		Study word sound/spelling
		Keyword method
		Use physical action
		Use L1 cognates
		Paraphrase word meaning
		Underline initial letter
	Cognitive	Verbal/written repetition
		Note-taking
		Put L2 labels on objects
	Metacognitive	Use L2 media
		Test yourself
		Continue study over time
		Skip/pass new word

are easier to learn than abstract nouns (examples: knowledge, attitude) and high frequency words are easier to learn than low-frequency words. Also, words where the learner has topical knowledge are easier to learn. For example, medical or legal terminology is generally difficult, but if one is an expert in those areas, learning the words specific to that area will be facilitated.

Interestingly enough, in many cases, target words that sound similar to words in learners' native language may be harder to learn. This is known as the similarity differential rate hypothesis (Major & Kim, 2002). This applies specifically to the spoken form of the word. However, spelling, especially for longer words, can make learning more difficult. In general, shorter words are easier to learn than longer words.

Although consciousness raising through classroom activities is crucial to vocabulary development, another useful tool is available. This tool is narrow

extensive reading, which is extensive reading with a common theme, genre, or author. A wealth of research exists on the benefits of extensive reading and narrow extensive reading provides further repetition, which should facilitate vocabulary acquisition. Of course, the relationship of vocabulary to reading is bi-directional. That is, vocabulary learning facilitates reading and reading facilitates vocabulary acquisition. When students read, they come across vocabulary items and their knowledge of those items is often strengthened. Every encounter adds to the knowledge of that word in some small way. However, for extensive reading to be more effective it must be done regularly and in large amounts. If reading is done sporadically or occasionally, the learning gains may be lost. On the other hand, when narrow extensive reading is done seriously and meticulously, the language gains go beyond just vocabulary. It is often through reading that one learns to love a language.

A variety of factors come into play as vocabulary is being taught. Teachers must adjust their method to the words being taught and the audience. However several methods have stood the test of time. These methods include flash cards, vocabulary notebooks, sentence writing, repetition, guessing from context, teaching word parts, and using the dictionary. While these methods are still being used, some new methods have become available. These include online searches, corpus databases, and digital dictionaries. New methods will probably be developed in the near future.

Flash cards may seem old-fashioned to some, but they are still extremely useful. These are the cards with the target word on the front and a translation or definition on the back, often accompanied by an example sentence. To be more effective, some class time should be given over to the making and discussing of cards. Simply telling students to work with flash cards at home will only appeal to the more motivated students. A simple activity is to ask students to make cards for the vocabulary words they do not know fully and then to bring in five cards of words they are really struggling with. Have the students sit in groups of four and discuss each other's cards. Also students can be told to make four piles of their cards. The first pile is of words that they really struggle with, the second pile is words that they know the meaning, but have trouble using, the third pile is words that they can use, and the fourth pile is of "retired" words or words that have become so easy the student hardly has to think about them. The goal is to move all the cards to the fourth pile. Simply asking every Friday how many words the students have retired that week can keep vocabulary learning on track.

Vocabulary notebooks, while common, are often of limited usefulness. This is because students often simply write translations next to the target words. The end result is a long list of words that students have made, but not really worked with. Sentence writing makes these notebooks more useful. However, group work where the notebooks are compared and discussed are also helpful. One useful activity is to have the students put the words in categories. They could be given a list of categories such as military, economic, leisure, media, academic, and other. Then they have to put the words into the categories and explain why they put

them in those categories. The words that are in the "other" category will require a detailed explanation of why they do not fit into the categories with more specific names. This can make putting a word in the "other" category more difficult than finding a category for it. Putting the words into categories is a highly cognitive activity that will cause the learner to carefully consider the meaning of the word.

Teaching some basic morphology is usually helpful. One way to do it, although it is getting a little dated, is to give the example of changing music from analog to digital. One who needs to do this will have to "MP3ify" the music and the process of which is "MP3ification." However, one needs to have a computer which can do that, or an "MP3ificational" computer. If the computer is not able to "MP3ify" the music it will have to be upgraded, or "MP3ifcationalized" the process of which is "MP3ificationalization," which means it will have to be taken to an "MP3ificationalizational" technical shop, and so on. This comic example shows students that the part of speech is often contained in the suffix of the word and changing the suffix changes only to part of speech in most cases. Lists and worksheets of roots and affixes are also useful and especially helpful when students first encounter a word.

Other vocabulary learning techniques include putting Post-it notes with target vocabulary on everything in the house. This is especially useful for beginning students who are learning basic vocabulary of household items. However, advanced students may put notes with unrelated words in places they are likely to see them and be reminded of the word. Additionally, incorporating target words into a cohesive text has been found to facilitate vocabulary acquisition (Dikilitaş & Bush, 2014). There are some games available, such as Pictionary and Taboo, which are useful in learning vocabulary. In fact, many games such as tic-tac-toe and concentration can be used in vocabulary lessons as well as the ever-popular hangman game.

While methods are important, it is also important that teachers impart a fascination with words. Developing curiosity in learners helps them to be independent. Creating learners who are independent in their vocabulary acquisition should be a goal of every teacher. Therefore, in addition to direct teaching via worksheets and whiteboards, teachers should train students to create a system for developing vocabulary. Teachers would do well to make it clear that vocabulary is developed rather than learned and that learners who are systematic are more successful.

SEE ALSO: Building Student Background for Specific Academic Vocabulary; Scaffolding Vocabulary Development; Teaching Strategies for Independent Vocabulary Development

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