A FRESH APPROACH TO VOCABULARY:
USING A WORD KNOWLEDGE FRAMEWORK

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The majority of vocabulary exercises and tests currently in use deal almost exclusively with conceptual meaning and word form. The desirability of this state of affairs seems to be unquestioned by most teachers and researchers, despite Richard's (1976) assertion that it takes more than just knowledge of a word's meaning and form to fully use that word. Unfortunately, there are still many language practitioners who remain largely unaware of non-meaning-based kinds of word knowledge. This paper will suggest that an understanding of the various kinds of word knowledge is necessary in order to fully understand what is occurring in vocabulary activities and tests.

The necessary first step is to define what those various kinds of word knowledge are. Nation (1990, p.31) presents a list of the word knowledge types that native-speakers typically possess. The assumption is made that if EFL learners aspire to native-like proficiency in the use of words, these are the kinds of word knowledge that they must acquire as well.

1. a word's spoken form
2. a word's written form
3. a word's part-of-speech, derivative forms, and grammatical patterns
4. a word's collocations
5. how frequently a word is used in a language
6. the many stylistic constraints which determine if a word is appropriate in a particular context (register)
7. a word's conceptual meaning(s)
8. a word's semantic network of associations

This list forms a framework from which to view vocabulary acquisition, to analyze how vocabulary activities enhance that acquisition, and how vocabulary tests measure that acquisition.

Another important characteristic of vocabulary acquisition is that it is incremental. Teachers are well aware of this incremental nature, especially of words that students know receptively, but are not yet able to use productively. There is also empirical support for this concept; studies summarized by Nation (1990 p. 44) place the number of exposures necessary to learn a word from five to over sixteen. The above list of types of word knowledge can help illustrate this incremental nature of vocabulary acquisition. It is obvious that L2 learners do not initially have full control of every type of word knowledge. Their overall knowledge of a word is more likely to develop in something like the following manner. After the initial exposure, a learner may have an idea of one of the word's possible meanings, along with an impression of its form: perhaps its first letter, how many syllables it has, and a rough idea of how it sounds. As the learner repeatedly comes into contact with and uses the word, understanding of the word's form and meaning are strengthened, while other word knowledge aspects are gradually added. This may continue until the learner finally controls the collocational and stylistic aspects. These final two kinds of word knowledge may well be the last to be controlled, since they seem to require a great deal of exposure to a language, and arguably, only a minority of L2 learners ever achieve native-like competence of these two aspects.

One ramification of using a word knowledge framework is that it leads away from the know/don't know view of vocabulary. Since learners may have good control of some kinds of word knowledge, partial control of others, and no control of yet others, any yes/no measurement is inadequate in describing their competence. Thus it must be realized that traditional vocabulary tests are only providing a one-dimensional measurement of overall vocabulary knowledge. This paper will suggest that a word knowledge framework can be useful for analyzing what kinds of knowledge a vocabulary test does and does not measure and address. Three tests will be discussed, including one which attempts to break out of meaning-based constraints, to concentrate on associations.

A word knowledge framework is also applicable to vocabulary learning activities. Unless the learner is in a rich ESL learning environment, well-designed activities are important if learners are to learn vocabulary most efficiently in a classroom situation. Teachers
can use a word knowledge framework to gain a deeper understanding of the various aspects of vocabulary knowledge, and from that consider which of those aspects to focus on at what time. Once they have some priorities set in their mind, the word knowledge framework can be used to analyze vocabulary activities for which word knowledge aspects they require learners to manipulate. To illustrate this, three activities used for vocabulary learning - a word list, a word family exercise, and guessing from context - will be analyzed for what word knowledge aspects they address.

Analyzing Vocabulary Tests with a Word Knowledge Framework

Until recently, tests have attempted to capture almost exclusively the knowledge of vocabulary meaning. This has been translated into yes/no scores of how many words students know, either of a small subset of words which was learned in a classroom, or of the English lexicon in general, in other words, the breadth of a learner’s vocabulary. Recently, there have been efforts to create tests which capture more than just word meaning, in an attempt to measure the depth of knowledge of vocabulary words (Schmitt, 1994). To show how the word knowledge framework can be useful for understanding vocabulary testing, let us look at three different types of test: a multiple-choice test, a fill-in-the-blank test, and a word association test.

Various forms of multiple-choice vocabulary tests are common, especially on standardized commercial tests such as the TOEFL (Educational Testing Service, 1987). The items quite often look like the following example:

The saxophone can play _melodious_ music.

A. beautiful  B. loud  C. fast  D. exciting

Note first that this is a test of receptive knowledge. As such it gives no direct measurement of how well a learner is able to use the word productively. What is measured is the ability to recognize the written form of the target word, and once recognized, match it with a word that has a similar conceptual meaning. The items are usually written so that there are no other clues, such as grammatical clues, to help the testee guess, and so the testee must rely solely on conceptual knowledge to get the correct answer (or rely on a 25% chance of guessing!). As such, this item almost exclusively tests understanding of meaning; it gives no information about how much the learner knows about the word’s grammatical, collocational, associative, or other word knowledge traits.

An example of a productive vocabulary test is the fill in the blank type. As the name implies, learners must decide what the correct word is from context and write it in the blank provided.

When he saw the car coming directly at him, he _jumped_ out of the way.

This type of item requires a learner to be able to read the contextual clues, use the context to recall the correct word and write it down in its correct form. So as in the multiple-choice item above, it mainly deals with conceptual word meaning and written form, only this time productively. To a certain extent, the word’s grammatical properties are also being measured, as the required word is obviously an adverb. Target words which exist in several parts of speech (like _quick, immediate, or smart_) can provide some measure of learners’ control of a word’s derivational possibilities, by forcing them to choose the correct derivative form. In addition, this example potentially measures learners’ knowledge of the somewhat common collocational relationship between _jump_ and _quickly_. The example does not measure frequency or register knowledge, but the word _quickly_ probably has associative connections with the action of jumping in general which may be tapped in answering the item.

A test designed to measure more than just meaning has been developed by Read (1993). His Word Associates Test focuses on word associations as opposed to word meaning. In the following example item, learners are required to circle the words which are somehow related to the target word.

circles: _edit_

<table>
<thead>
<tr>
<th>arithmetic</th>
<th>film</th>
<th>pole</th>
<th>publishing</th>
</tr>
</thead>
<tbody>
<tr>
<td>revise</td>
<td>risk</td>
<td>surface</td>
<td>text</td>
</tr>
</tbody>
</table>

(Read, 1993)
The assumption is that learners who know a word well will have developed native-like associations for that word; this test attempts to measure those associations. As such, it can address the various connections a word has with other words. These connections can be hierarchical or collocational in nature, or the connected words can be synonyms, antonyms, or members of the same group or category. Since this test has the possibility of measuring all these kinds of connections, it holds the promise of providing a much broader picture about what a learner knows about a word. Of course, it is also testing meaning because it would be almost impossible to match the associations correctly without knowing the meaning. As with all receptive written test formats, it also measures recognition of written word form. The test does not address grammatical knowledge, since associations cross over grammatical boundaries, nor does it address frequency or stylistic constraints.

**Analyzing Vocabulary Activities with a Word Knowledge Framework**

Just as the word knowledge framework can be used to analyze what various vocabulary tests measure, it can also be used to evaluate what forms of word knowledge vocabulary activities address.

Word lists are often used to learn vocabulary. But what can be learned from a word in a word list setting? To illustrate the answer, look at the following examples in which words you may not know are presented (in order to simulate L2 learning). What different kinds of word knowledge can be derived from the various ways of defining the word?

1. **mien** - a person's bearing or look (Oxford Reference Dictionary, 1986)

2. **petiole**

3. **egg** - たまご

Assuming you did not previously know the word mien, you probably were able to learn various things from the L2 definition. The first obvious thing is that the written form is presented. The definition gives a rough indication of the conceptual meaning. You may have guessed that mien is a noun from the part of speech of the definition. If you had any L2 associations for a person's bearing you may have transferred them onto the new word mien. But it is difficult to see how this definition can advance any of the other aspects of word knowledge. If a learner is studying by himself, then there is no chance to hear the word, other than by listening to his own approximation of it. Definitions do not reliably give collocations, since definitions are usually given with more frequent vocabulary items which may have very different collocation patterns. Normal definitions are also unlikely to give much indication of a word's stylistic constraints or its frequency of use.

The situation remains largely the same if an L1 word is defined with a picture, such as petiole above. Again, there is no explicit grammatical information, although pictures are likely to be used with illustratable objects or actions, which are usually transparent as nouns or verbs. The picture should illustrate the conceptual meaning, but apart from having the written form given, there is no other information.

Note, however, that in cases involving physical objects, pictures may provide a better illustration of meaning than quite a large definition.

The situation changes when an L1 translation is given, such as in egg above. Potentially all of the word knowledge information learners have about the L1 word can be transferred over to the new L2 word. This is a double-edged sword, however, as some of the information transferred to the new L2 word may be inappropriate. So L1 translations may not be the best activity when the two translation equivalents behave quite differently in the two languages. Even if this is the case, they may be very useful as an initial introduction to a new word, with subsequent activities focusing on the word's more precise traits. It is important to remember that this L1 transfer effect is also possible with other kinds of activities; any time a learner uses translation as a strategy, aspects of the L1 word may be transferred whether they are appropriate or not.

The following word-family exercises (Allen, 1983) focus on different kinds of word knowledge. Each requires learners to choose from three members of the same word family with different parts-of-speech in order to complete the sentence.
1. Their new helper is very ___________.
   (depend, dependable, dependably)

2. He has completed the work ___________.
   (satisfaction, satisfactory, satisfactorily)

This activity stresses knowledge of derivatives in building up vocabulary. It also focuses attention on the differences in written form between the words, since they are very similar, and one or two letters can make all the difference (as between satisfactory and satisfactorily). It also addresses collocations, since different members of the word-family will collocate with different words from different parts of speech. It does not really address meaning, since the three words have essentially the same meaning in different part-of-speech contexts, and so the learner does not really have to know what that meaning is to answer the questions. Likewise, the exercise requires no manipulation of frequency or associative knowledge.

Guessing from context has been suggested as a good way to learn unknown words when reading (Nation, 1990). Since the words appear in full context, many more of the word knowledge types can be involved in the guessing process. Consider the italicized words in the following passage.

Mrs. Jones was extremely tired as she trudged into the hotel lobby with her two heavy suitcases. Deciding not to wait for her husband, who was still outside paying the taxi, she went directly to the reception desk and asked for a double room. The receptionist asked, "Is the gentleman at the front door your husband? He seems to be trying to get your attention."

The reader may not have known the word trudged in the text. But from the context tired and heavy suitcases, one could probably guess its meaning as something close to tired walking. Its place in the sentence would indicate it is a verb. Although it is impossible to know whether the words surrounding it are frequent collocates, they are at least the first examples which can be compared with later. Likewise, if the text is authentic, the learner may be able to get a first feeling for how frequently a word appears in that kind of discourse style. Similarly, there may be hints which give information on its stylistic constraints. In the above example, hotel receptionists usually use polite formal language when addressing guests, so this is an indication that gentleman is more formal than man or fellow. If a learner is able to recognize the similar word forms of reception and receptionist, then that, combined with the derivational knowledge that -able often refers to a person who does a particular thing, can help lead to a correct guess of meaning. The learner may also form some associations from the relationship of the unknown word and the overall drift of the passage. It is also possible that learners may try the strategy of sounding out an unknown word to see if they know it in its spoken form. So potentially all forms of word knowledge can be used in the guessing process, although it is unlikely that there will be clues present to utilize every type of word knowledge.

It is important to note that exercises which only focus on a limited number of types of word knowledge are not necessarily inappropriate. Indeed, it has been suggested that word lists can be a very effective way to introduce new words, as long as they are elaborated on later (Meara, in press; Nation, 1990; Schmitt and Schmitt, in process). To avoid boredom and to provide a wide range of exposure, this latter elaborative recycling should include several different kinds of activities. Teachers can utilize a word knowledge framework to help provide this diversity, by analyzing the main focuses of different vocabulary activities. Another consideration is that activities which focus on meaning often take less time than more involved activities which focus on non-meaning aspects (for example, semantic maps), allowing more words to be covered.

Conclusion

The object of this paper is not to call into question the usefulness of traditional vocabulary learning activities or testing practices. For many purposes, information on word form and meaning may be enough. But there is more to knowing a word, and it is time to develop an awareness of the other kinds of word knowledge necessary for adequate control of vocabulary, and create tests and exercises which better address them. A word knowledge framework can help teachers and researchers to realize there is more to knowing a word than meaning, and then can give them a description from which they can make
conscious decisions about the types of word knowledge they want to develop. It also gives them a tool for analyzing teaching activities in order to judge the suitability of activities for that purpose. Likewise, when they want to evaluate the learning of those kinds of word knowledge, they can use this framework to understand more precisely what their vocabulary tests are really measuring.

References


Meara, P. In press. The importance of an early emphasis on L2 vocabulary. *The Language Teacher*.


