What are the challenges of teaching vocabulary?

This section discusses principles of effective vocabulary instruction and relates them to powerful cognitive processes for learning. Figure 1 provides a summary of these principles.

When you think of vocabulary, there is a good chance that you think of long lists of words from social studies or science textbooks, spelling word lists, or even the humongous lists of terms to study for college entrance exams. Zillions of flash cards also may come to mind. No doubt you share the common childhood experience of having to "go look up the words in a dictionary, write the definition, and then write a sentence using the term" -- but how much of that vocabulary do you remember now? Do you remember how you could rote copy the definition of a term as part of a homework assignment, but have no real idea what the definition meant and still get an "A" on the assignment?

Perhaps the least effective way to study vocabulary is the "look and remember" technique. Here, students typically stare at the term and definition, apparently trying to activate photographic memory they wish they had. Another common study technique is to do "rote verbal rehearsal" -- saying it over and over again, usually in the exact language and format in which the definition originally came.

While 'rote verbal rehearsal' is considerably more powerful than the 'look and remember' technique, this strategy is nonetheless a true weakling when compared to other, considerably more robust techniques that could be used. Rote verbal rehearsal is a seductive strategy -- it does not require a great deal of mental energy to use, and it seems (to students) to work (at least in the short term). However, it rarely results in sustained memory of the new information. The federal government had a dollar for every time a student seemed to have completely memorized the information the night before a test, only to find s/he had completely forgotten it the next day.

Figure 1

Effective vocabulary instruction.....

* Is meaningful and occurs in multiple contexts.
* Involves many opportunities to use the new words when reading, writing, and speaking.
* Focuses on students building relational understandings.
* Involves having students purposefully make connections to personal background knowledge and experience.
* Is enhanced when students generate metaphors about the new idea.
* Involves students making precise elaborations.
* Involves both familiar examples and nonexamples and familiar language.
* Involves understanding the new idea in the context of understanding or solving current social problems of the world.
day during the test, we could eliminate income tax!

What kinds of instruction best impacts vocabulary learning?

What we know from research is that for vocabulary to be remembered, it must be taught in a manner that makes the vocabulary meaningful. More than anything, vocabulary needs to be taught within a meaningful context -- actually, within multiple meaningful contexts. When new terms are taught as part of a set of experiences that are meaningful to the student, the new word is much more likely to be remembered. On the other hand, vocabulary definitions learned as part of a long list of disassociated terms (like words in spelling-word lists) are not likely to be well remembered (see Figure 2).

Consider the term “fiduciary” -- a term that means "being legally responsible for something that belongs to another person or holding in

Figure 2

Guidelines for selecting to-be-learned vocabulary

Do...

* Less is more -- depth is more. Teach fewer vocabulary terms, but teach them in a manner that results in deep understandings of each term.

* Teach terms that are central to the unit or theme of study. These are terms that are so important that if the student does not understand them, s/he likely will have difficulty understanding the remainder of the unit.

* Teach terms that address key concepts or ideas. While a text chapter may contain 15-20 vocabulary terms, there may be only 4 or 5 that address critical concepts in the chapter (sometimes only 1 or 2!).

* Teach terms that will be used repeatedly throughout the semester. These are foundational concepts upon which a great deal of information will be built on over a long term basis.

Avoid....

Ø Teaching or assigning words from textbooks just because they are highlighted in some way (italicized, bold face print, etc.

Ø Teaching or assigning words just because they appear in list at the end of a text chapter.

Ø Teaching or assigning words that will have little utility once they student has passed the test.

Ø Assigning words the teacher cannot define.

Ø Assigning large quantities of words.

Ø Assigning words that students will rarely encounter again.
trust.” This term and definition might be memorized by a student and remembered just long enough to produce its definition on an upcoming test, but the definition will be forgotten soon if the student does not encounter or use this term in a minimum of 14-20 different meaningful contexts that are pertinent to the student; for less capable learners (e.g., students with learning disabilities), this number is probably even higher. On the other hand, if the teacher had the class first read about and then simulate the problem-solving and decisions which must be made when someone in a family becomes mentally incapacitated, and finally write about what they learned, students would have many opportunities to both learn about and use the term fiduciary in a meaningful context.

How much is too much?
Often teachers in secondary schools weekly require students to memorize long lists of vocabulary terms. Combining these lists from various subject areas (social studies, science, etc.), some students may have up to 100 words per week they are expected to learn! While many of these students appear to learn these words because they perform well on weekly quizzes or unit tests, the real test of learning is what students remember a few months later. In other words, how well do they retain this knowledge? If it is not remembered, then the whole teaching/learning/testing exercise was largely a waste of time and energy.

Implications are that teachers need to be VERY selective about which vocabulary terms students should be expected to learn and remember.

We also know from research that new terms must be defined using language and examples which are already familiar to students, and that more ideas from background knowledge with which the student can associate the new term, the more likely it will become well
"networked" and become a permanent part of memory. For example, when webs are created that illustrate the relationships among ideas (see Figure 3), relational understandings are enhanced, especially for the person who created the web.

Figure 3

Similarly, we know from research when students purposely link new ideas to those from their personal background knowledge or experience, the more likely the new concept will be understood and remembered. For example, when thinking about what fiduciary means, the student might think, "This sort of reminds me of when Granny got so old she couldn't really take care of her finances. Uncle Scott had to do it for her. I guess he was a fiduciary."

Likewise, we also know that when students create metaphors which, to them, capture the essence of what the new concept means, they are also more likely to understand and remember it. For example, the student might think, "Fiduciary is like a principal of a school. Parents are responsible for their children, but the principal is legally responsible for what happens to them at school.

We know that while metaphors can be very powerful memory enhancers, more mental energy is required to create them than simply making connections to background knowledge and experience. Teaching students to create metaphors can be more challenging, but once students catch on to the process of creating metaphors, they often view it as an interesting and fun way to learn.

We also know from research that elaboration plays a key role in vocabulary learning. Thus, if the student puts the definition in his/her own words and explains what it means (as opposed to repeating the exact words from the original definition), learning is more likely. For example, when studying with a friend you may have experienced that you were much more likely to understand and remember a new term when YOU explained it to someone else. When you were explaining it to your friend, you were elaborating.

We know that precise elaborations produce the best results. Precise elaborations contain both the main idea of the definition and all of its critical features (parts which clarify and refine the main idea). For example, a precise elaboration of fiduciary might be "when you have to take care of something for somebody as if you legally owned it -- e.g., if a friend lent you his car, you would be legally responsible if you ran over somebody with it. You'd be legally responsible if you crashed the car, too."

In contrast, we know that imprecise elaborations can lead to erroneous understandings. An imprecise elaboration might be "when you borrow something, you've got it -- they don't have it anymore -- you know what I mean...like you're supposed to...you know...take care of it...or something" Here, the learner has expressed part of the concept (being in possession of something that belongs to another) but has omitted critical features which provided essential clarification (e.g., being legally responsible).
Research indicates that an important way the mind seems to process a new idea is by seeking to understand it in terms of how it is similar or different from ideas already known. The mind seems to often prefer contrast when it is processing information. This means that not only do we prefer examples of new ideas, we also find that nonexamples also provide considerable help when we are trying to understand something new. To illustrate, the discussion above about the concept "precise elaborations" not only provided you an example of a precise elaboration, it also provided you with a nonexample of one. The implication is that to teach vocabulary effectively, students need to think about the new concept both in terms of both examples and nonexamples.
How does one motivate students to learn new vocabulary?

Students are more likely to be naturally motivated to learn new vocabulary when doing so in the context of understanding or solving social problems of today’s world. For example, consider the brief history lesson below about the middle-ages.

...It was during this period that the Roman Catholic Church became a theocracy, a situation where a religious organization or church essentially runs the government. The actions of Charles Martel, a famous ruler of the Franks during the early Middle Ages, largely contributed to this situation. Recognizing the growing popularity of the Roman Catholic Church, he had the church sanctify his son’s election to be king in hopes of winning favor with the church and support of the growing population of Catholics. His actions established a precedent that lasted for many centuries. It ultimately gave the Roman Catholic Church the power to appoint or de-throne kings, thus getting the church into the government business. A host of very unfortunate circumstances resulted such as numerous wars, the Inquisition, the Crusades, etc. where thousands of innocents lost their lives, were brutalized, or at minimum were denied opportunities to own land and other basic economic necessities because they had different religious beliefs than that officially recognized and sanctioned by the government. Attempts to overcome problems associated with a theocracy eventually led to the Magna Carta, which in turn led to the principle of separation of church and state, a basic tenet of the U.S. Constitution.

Studying about how a theocracy developed in the Middle Ages and its limitations in relation to the rights of individual citizens of that era may seem to have little relevance to many students today. However, when this same concept is applied to contemporary social problems (e.g., Serbian Muslims attempting to eradicate Croatians in order to create a Muslim theocracy), its relevance to students can take on a whole new dimension.

This is especially true when the concept is addressed in the context of a contemporary social issue in which the student is personally invested in or influenced by. For example, the problems of theocracy may be better understood if analyzed within the context of debating the policy of "not allowing organized prayer in public schools" or in discussing "the new school board policy that prohibits the display of religious symbols at school as part of holiday celebrations (e.g., Christmas and Easter)." These policies are a direct result of the "separation of church and state" doctrine of the U.S. Constitution, which in turn is a result of the desire to avoid having this country evolve into a theocracy.

Thus, while you may be obligated to teach middle ages history, key concepts associated with a period of history (e.g., understanding what a theocracy is and its limitations) will more likely be understood and remembered by students if you also examine these also within the context of understanding and solving current social problems. This principle holds true for all content areas, not just history.