Teaching Vocabulary to Improve Reading Comprehension

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Problems of Traditional Methods of Vocabulary Instruction

Much vocabulary instruction involves the use of definitions — some combination of looking them up, writing them down, and memorizing them. Another commonly used method involves inferring the meaning of a new word from the context. Neither method taken by itself, however, is an especially effective way to improve reading comprehension.

Definitional Approaches

Traditionally, much vocabulary instruction has involved some variety of a definitional approach: students learn definitions or synonyms for instructed words. There are obviously better and worse versions of this approach, and one should not conclude that definitions are not useful in vocabulary instruction. But definitions alone can lead to
only a relatively superficial level of word knowledge. By itself, looking up words in a dictionary or memorizing definitions does not reliably improve reading comprehension.

The first problem with definitional methods of instruction is that many definitions simply are not very good. Here is a definition from a well-written school dictionary (American Heritage School Dictionary 1977):

mirror: any surface that is capable of reflecting enough light without scattering it so that it shows an image of any object placed in front of it

This definition may be accurate, but it is hard to imagine that anyone who does not already know the meaning of the word could be helped by the definition. Most of the content words in the definition are less likely to be familiar to the student than the word mirror itself.

Here are some other definitions taken from the glossary of a basal reader:

siphon: to pull water from one place to another
migration: moving from one place to another
image: likeness
baleen: substance like horn that grows in plates in a whale’s mouth and that is used to filter food from the water

These definitions are simply not accurate, at least not for the readers who need to use them. Note, for example, that likeness is relatively rare, occurring less than twice in a million words of text, whereas image, the word it is used to define, is far more frequent, occurring twenty-three times per million words of text (Carroll, Davies, and Richman 1971). Likeness is also one of the few English words ending in -ness that is semantically irregular. As for the definition of baleen, the words horn and plates may be frequent enough, but they are being used with meanings that are probably not at all familiar to students.

Definitions given in glossaries are also not always appropriate to the selection being read. In one basal reader, for example, tragic is defined in the glossary as “very sad.” The word tragic occurs in one selection in the following context (spoken by a blind boy walking through Pompeii): “Too bad! The tragic poet is ill again. It must be a bad fever this time, for they’re trying smoke fumes instead of medicine. I’m glad I’m not a tragic poet.”

Even when definitions are accurate, they do not always contain enough information to allow a person to use the word correctly. This
is especially true of definitions for words for concepts with which the learner is unfamiliar. Sheffelbine (1984) and others have used the following activity to communicate this point to teachers. Take some definitions of words that represent truly unfamiliar concepts — such as those in the list below — and try to do what students are often asked to do: “For each word, write a sentence in which it is used correctly.” I suggest that readers actually take the time to try this activity, to experience the full force of the point: Definitions do not teach you how to use a new word. The definitions that follow appear in *Webster's Third New International Dictionary* (1961):

- **epiphenomenal**: having the character of or relating to an epiphenomenon
- **epiphenomenon**: a phenomenon that occurs with and seems to result from another
- **etaoin shrdlu**: a combination of letters set by running a finger down the first and then the second left-hand vertical banks of six keys of a linotype machine to produce a temporary marking slug not intended to appear in the final printing
- **kern**: to form or set (as a crop of fruit)
- **khalal**: of, relating to, or constituting the second of four recognized stages in the ripening of a date in which it reaches its full size and changes from green to red or yellow or a combination of the two colors
- **squinch**: a support (as an arch, lintel, or corbeling) carried across the corner of a room under a superimposed mass (as an octagonal spire or drum resting upon a square tower)
- **stative**: expressing a bodily or mental state
- **stirp**: the sum of the determinants of whatever nature in a fertilized egg

There are two reasons why it is difficult to write meaningful sentences, given only a definition. One is that definitions alone tell little about how a word is actually used. This problem is especially acute for children, who are less able than adults to use information that is available in definitions (Miller and Gildea 1987).

Another reason that it is difficult to write a sentence for a truly unfamiliar word, given only the definition, is that definitions do not effectively convey new concepts. One can think of it this way: Why isn’t a glossary of biological terms an adequate substitute for a biology textbook? The answer in part is that important information about biological concepts and their interrelations simply does not fit into definitions.
This brings us to perhaps the most basic reason that knowledge of definitions is not adequate to guarantee comprehension of text containing the words defined: reading comprehension depends on a wealth of encyclopedic knowledge and not merely on definitional knowledge of the words in the text.

Take, for example, a narrative in which a bat is seen flying around. Definitional features of *bat* — the fact that bats are mammals rather than birds — may well be totally irrelevant in comprehending the text. Understanding the text may depend more on a knowledge of bats, or a knowledge of folklore about bats, that would not necessarily be included in a definition.

The point is not that definitions are never to be used in vocabulary instruction; on the contrary, they will play an essential role in most vocabulary instruction. But definitions as an instructional device have substantial weaknesses and limitations that must be recognized and corrected. How this can be done will become clearer from the discussion of intensive approaches to vocabulary instruction.

**Contextual Approaches**

Another common approach to teaching vocabulary is the use of context. A teacher might write a sentence or two containing the word to be learned on the board and ask students to figure out what the word means. There is no question that learning from context is an important avenue of vocabulary growth and that it deserves attention and practice in the classroom. But context, used as an instructional method by itself, is ineffective as a means of teaching new meanings, at least when compared with other forms of vocabulary instruction.

The problem is that, for the most part, a context may look quite helpful if one already knows what the word means, but it seldom supplies adequate information for the person who has no other knowledge about the meaning of a word. Consider the following sentence used to illustrate context clues involving contrast: “Although Mary was very thin, her sister was obese.” Contrast is clearly involved, but the exact nature of the contrast is clear only to someone who already knows the meaning of *obese*. The problem becomes obvious when one attempts to substitute other words for the word whose meaning is supposed to be inferred. There is no reason, for example, for a word in this position to refer to an extreme value on the scale; an author could easily have used the word *normal* in this context. Given only this sentence context, one can think of other words that
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relate to other possible implicit contrasts — for example, charitable (in her description of Mary), or unconcerned (about her health). Nor is there any reason to restrict guesses about the meaning of a new word to synonyms; meanings can be expressed by phrases, such as “not jealous,” that would fit in this context.

Note that this example involves the use of contrast, a relatively informative type of context clue. In most cases, what appears to be a fairly informative context would allow an even wider range of possible substitutions.

Natural and Instructional Contexts

One motivation for having students try to figure out word meanings from context is to help them develop word-learning strategies to use on their own. Practice in these strategies should definitely be part of an approach to vocabulary building. However, the teacher must face up to the dilemma posed by any attempt to teach such strategies: Most contexts in normal text are relatively uninformative. The context around any unfamiliar word tells us something about its meaning, but seldom does any single context give complete information (Deighton 1959; Shatz and Baldwin 1986). More informative contexts can be constructed (see Gipe 1979), but to the extent that they are informative, they are likely to be unnatural and hence defeat the purpose of training students in strategies for inferring word meanings from real texts.

A good context might help a student figure out the meaning of a less familiar synonym for a known word, but a single context is in general not adequate for teaching a new concept. If the goal is to teach students strategies, both teachers and students must accept partial word knowledge, some degree of uncertainty, and occasionally misleading contexts (Beck, McKeown, and McCaslin 1983). If the goal is to get a good grasp on the meaning of a new word, one will have to use highly artificial contexts, multiple contexts, or some other sort of supplemental information.

Combining Definitional and Contextual Approaches

A combination of definitional and contextual approaches is more effective than either approach in isolation; such mixed methods do, in general, increase reading comprehension (Stahl and Fairbanks 1986). Indeed, it would be hard to justify a contextual approach in which the teacher did not finally provide an adequate definition of the word or help the class arrive at one. Likewise, a good definitional
approach includes sentences that illustrate the meaning and use of the words defined.

An example can often convey a meaning more vividly than a definition and help students relate what may be a very abstract and general definition to their own experience. For example, according to one school dictionary, the word *expand* in one sense means "to increase in one or more physical dimensions, as length or volume." A simple sentence such as "The balloon expanded as she blew air into it" might be helpful, perhaps even necessary, for the reader to make sense of such a general definition. It should be noted, of course, that it is the combination of definition and context that communicates the meaning effectively. The context alone, for example, "The balloon _____ as she blew it up," allows many interpretations: grew larger, burst, stretched, became taut, became more transparent, and so on.

Providing a natural context is often essential in teaching students how a word is used. Consider the definition of *cater*, meaning "to act with special consideration." Even if a student somehow grasped the connotations of this sense of the word (which the definition does not adequately convey), the student might produce a sentence such as "The mayor catered when the corporate executives visited the city."

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