Exploring How Teaching Morphemic Analysis Fosters Thai EFL Students' Vocabulary Development

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Abstract

This paper first briefly reviews the primary importance of vocabulary instruction for EFL students. It then presents ways in which students learn vocabulary, as well as the components of effective vocabulary instruction. Also, this paper analyses the problems of ineffective vocabulary instruction in Thailand and introduces morphemic analysis, which EFL teachers can encourage students to implement as one of the most effective strategies for determining the meanings of new or unfamiliar words. Finally, it suggests instructional strategies which illustrate how to incorporate teaching morphemic analysis into instruction.

Introduction

In Thailand, English is a required course, and most students study it as their primary foreign language. As been increasingly recognized, vocabulary is central to language and of critical importance to typical language learners (Rodriguez & Sadoski, 2000; Zimmerman, 1997). Thai learners are no exception.

In contrast, limited knowledge of English vocabulary may affect the students' performance in the four basic language skills: speaking, listening, reading, and writing. Furthermore, students' vocabulary knowledge is basically evaluated in most high-stakes standardized tests at all levels, which determine major decisions about their academic success. This offers not only challenges, but also opportunities for vocabulary instruction.

Despite the great significance of vocabulary knowledge, many Thai EFL teachers have paid little attention to it. They still practice the conventional ways of teaching English in which teachers emphasize merely the translation equivalents or encourage students to memorize a

great deal of vocabulary without making use of the words' rich contexts. Students may learn many words individually without knowing how to use them in various contexts and often do not retain the knowledge.

Due to the number and complexity of the English words students need to learn, most teachers are unable to cover them in their lessons. Thus, they should teach students to use strategies to figure out word meanings on their own. One of these independent strategies is morphemic analysis, which allows students to use prefixes, suffixes, and roots to interpret new words and increase vocabulary knowledge (Anglin, 1993).

Nevertheless, many students are not aware that knowing how words are constructed can be a way to determine their meanings. Besides, students do not often know the meanings of common word parts. Thai EFL teachers, therefore, can play a vital role in showing students how to construct meaning for unfamiliar words.

This paper first briefly reviews the primary importance of vocabulary instruction for EFL students. It then presents ways in which students learn vocabulary, as well as the components of effective vocabulary instruction. Also, this paper analyses the problems of ineffective vocabulary instruction in Thailand and introduces morphemic analysis, which EFL teachers can encourage students to implement as one of the most effective strategies for determining the meanings of new or unfamiliar words. Finally, it suggests instructional strategies which illustrate how to incorporate teaching morphemic analysis into instruction.

Primary Importance of Vocabulary Instruction for EFL Students

Research clearly points out that vocabulary knowledge correlates significantly with overall reading achievement (Davis, 1944, 1968; National Reading Panel, 2000). In the areas of reading and language arts, vocabulary instruction plays a crucial role in students' comprehension and

written expression. In terms of the content areas, it helps students develop new conceptual frameworks and understand more sophisticated ideas. Apart from that, vocabulary knowledge increases students' ability to actively participate in social and academic classroom routines. In other words, vocabulary is linked strongly to knowledge acquisition and, therefore, academic success.

Vocabulary development is a significant factor in second language acquisition. Research asserts that English vocabulary knowledge is one of the main factors differentiating the reading performance of native English speakers and that of EFL learners (Garcia, 1991; Verhoeven, 1990). Research also shows that, in order to comprehend an academic text, second language learners need approximately the same number of words in their lexicon as first language readers (Goulden, Nation, & Read, 1990). Wilkins (1972; 1974) expresses the view that learning vocabulary is as important as learning grammar. He further explains that we can distinguish near native speaking levels by whether learners can use collocations, which refers to the way in which words are used together to produce natural-sounding speech and writing. Without such ability, learners cannot be classified as native speakers, even if they make no grammatical mistakes.

Allen (1983) holds the view that vocabulary problems frequently interfere with communication. When people do not use the right words, they fail to communicate. This view underlines the importance of vocabulary instruction in EFL classrooms as without vocabulary, communication is unsuccessful. Research also supports that many of the learners' difficulties, both receptively and productively, result from an inadequate vocabulary. Even when they are at higher levels of language competence and performance, they still need vocabulary development (Laufer, 1986; Nation, 1990). Some other research implies that vocabulary

competence is at the heart of communicative competence (Meara, 1996) and can be a prediction of academic success (Verhallen & Schoonen, 1998).

Ways of Learning Vocabulary

Considering the process of learning a word, it is not surprising that students' vocabularies develop through a wide variety of channels. They learn words when other knowledgeable people, including teachers, parents, and peers, explicitly explain word meanings to them. Apart from that, they learn words from the contexts of what they read, hear, and experience in their lives.

Students learn most words from context rather than through direct instruction (Beck & McKeown, 1991; Nagy & Herman, 1987). According to Beck and McKeown's (1991) and Biemiller's (1999) studies, in a given year, average students learn in schools only about 300 words through explicit vocabulary instruction. From the fourth grade on, students learn most words incidentally through books and stories (Nagy & Hermann, 1987).

Even though reading is a major source of vocabulary development, good readers learn more words from reading than do poor readers (Jenkins, Stein, & Wysocki, 1984). This is because good readers tend to read more and become even better readers whereas poor readers read less and become poorer readers. This phenomenon is commonly referred to as the *Matthew Effect* after a passage in the Bible's Book of Matthew: the rich get richer and the poor get poorer (Stanovich, 1986; Walberg & Tsai, 1983). This division suggests the need for more effective explicit vocabulary instruction, especially for poor readers.

Nevertheless, direct instruction cannot be used to teach the meaning of all words that students will encounter during their school years

because of the large number of words they need to learn. Instead, teachers should teach them how to acquire word meanings independently, both as they hear new words and as they encounter them in reading. The Report of the National Reading Panel (2000) describes four main methods of vocabulary instruction besides providing definitions: (1) implicit instruction (e.g., exposure as students read widely); (2) multimedia methods (e.g., graphic presentations and hypertext); (3) capacity methods in which students practice extensively until the reading process becomes automatic; and (4) association methods in which students draw a connection between known and unknown words. They found that vocabulary knowledge is increased by multiple exposures to words in many rich contexts, making connections with other reading materials or oral language, pre-instruction of word meanings before reading, and active engagement of the learner in acquiring and using vocabulary. Also, computer programs designed to teach vocabulary assist direct vocabulary instruction.

The report concludes that there are many ways in which students acquire word knowledge, and deep knowledge acquisition occurs over time. Consequently, teachers should teach vocabulary both directly and indirectly and use multiple methods of instruction. In addition, teachers also need to help create a learning environment that fosters students' incidental learning. Teachers play a crucial role in encouraging students to develop strategies for independent word learning and supporting them in learning when and how to adopt these strategies in different situations.

The Components of Effective Vocabulary Instruction

According to Graves and Watts-Taffe (2002), in order to be effective, a program of vocabulary instruction should provide students with opportunities for word learning by:

(1) encouraging wide reading (so that implicit learning can occur);
(2) exposing students to high-quality oral language;
(3) promoting word consciousness;
(4) providing explicit instruction of specific words; and
(5) providing modeling and instruction in independent word-learning strategies.

They further discuss that the teaching of individual words is most effective when students learn both definitional and contextual information, when they actively process the new word meanings, and when they experience multiple encounters with words.

Problems of Ineffective Vocabulary Instruction in Thailand

Despite the argument that the best way of teaching vocabulary is to utilize as many strategies as possible, most EFL teachers in Thailand still use a limited range of methods. At present, most still use the traditional ways of teaching vocabulary. Their common emphases are on memorizing and translation-based teaching strategies. For instance, some ask students to look for dictionary definitions whereas others ask students to memorize the translation equivalents in Thai. Teachers usually use decontextual methods to teach words in isolation rather than showing students how to make use of context clues. Unfortunately, a large number of Thai EFL students do not benefit from these ineffective vocabulary teaching approaches. Yeung (1999) describes many students' reading process as follows:

> Given a separate glossary, when readers encounter an unfamiliar word, they need
> to leave the text, turn to the vocabulary list, temporarily store its meaning, and

> then revert to the text and try to incorporate the meaning into the text. (p. 197)

This process can short-circuit comprehension, and at times students tend to give up because the text does not make sense.

Furthermore, many Thai EFL students often believe that memorizing word lists is an efficient way of learning words. However, Yu (1992) criticizes that this perception may lead to some negative learning consequences because some students may: (1) learn limited or false equivalents; (2) fail to learn to use collocations; and (3) use ineffective methods to learn.

In all likelihood, teachers use a narrow range of vocabulary teaching strategies because of familiarity or because they believe that providing students with the meanings of words is less time-consuming. Consequently, students perceive that they do not learn enough words in class and need other means of learning outside classrooms. Many students also believe that lack of vocabulary development negatively affects their academic performance.

Teaching Morphemic Analysis

Even though learning words from context is an important part of vocabulary development, EFL teachers should not expect contextual exposures to adequately familiarize students with word meanings. Effective instruction requires meaning-based approaches in which teachers help students develop strategies for understanding new words. In this regard, morphemic analysis can be one of the most effective strategies to help students learn new words while reading and deal with the complexity of word knowledge (Baumann et al., 2002).

Research indicates that good readers use morphological knowledge to decode the meaning of new words (Carlisle, 1995; Nagy, Diakidoy, &

Anderson, 1993; Schmitt & Meara, 1997). Morphology is the study of meaningful word parts or morphemes and the way in which they are joined together to create meaning. Root words and their derivatives make up word families. Knowledge of the relationships of the words in these families facilitates the reading and understanding of these words. Also, knowing meanings for a new word's root and its affixes, learners can meaningfully decode the new word. In contrast, poor readers show inadequacy of word knowledge, as well as less ability to organize and access those words using morphological relationships (Moats & Smith, 1992).

Nagy and Anderson (1984) report that over 30% of written word types either are inflected or have a derivational affix. Based on their parts, readers can predict the meaning of most words consisting of more than one morpheme. Besides, 55% of vocabulary between the 1,000 and 2,000 most frequently used words and at least 58% of academic and low frequency words originate from Latin or Greek (Bird, 1987; Corson, 1997). As a result, knowledge of morphology can help expand and elaborate students' vocabulary knowledge. Balmuth (1992) suggests that readers find it helpful when the same spelling is kept for the same morpheme, despite variations in pronunciation. Henry (2003) supports that longer words of Latin and Greek origin, which are the majority of words in the English language, are often easier to spell than short words because the longer words contain recognizable word parts that are used in thousands of words.

Anglin (1993) indicates that students take advantage of morphemic structure to figure out the meanings of unfamiliar words. Also, during adults' reading, morphemes function as perceptual units in word recognition. Research shows that recognition of common base morphemes in the derived words facilitates word reading (Carlisle & Stone, 2005).

Tyler and Nagy (1990) point out a strong relationship between the ability to read morphologically derived words and general word reading skills. Moreover, there is also a significant relationship between morphological awareness and literacy. In order to be successful readers, students need to have morphological awareness (Carlisle & Fleming, 2003; Mahoney, Singson, & Mann, 2000; Singson, Mahoney, & Mann, 2000; Verhoeven & Perfetti, 2003).

Both researchers and theorists hold the view that instruction in morphology helps increase vocabulary knowledge, spelling, word recognition, and reading comprehension (Baumann et. al., 2002; Carlisle, 1988; Chomsky, 1970; Elbro & Arnbak, 1996; Fowler & Liberman, 1995; Johnston & Baumann, 1984). As Baumann et al. (2002) state, students who receive morphemic analysis instruction are better able to apply their knowledge of prefix meaning and their ability to disassemble and reassemble morphologically analyzable words to untaught morphemic transfer vocabulary. As reported by Reichle & Perfetti (2003), morphological awareness, which depends on exposure to morphemes in different words and contexts, enhances word identification. They emphasize that context and morphology are the two major sources of information which readers can immediately make use of when they come across a new word. Also, their suggestion for teachers is to directly teach both of these categories of skills. As reported by Henry (1988), even good readers who lack good morphological awareness benefit from this explicit instruction.

Instructional Strategies for Teaching Morphemic Analysis

As Manzo and Manzo (1990) propose that morphemic analysis is best taught incidentally, teachers should watch for words in reading

assignments that are unfamiliar to students but that have familiar word parts. Following is their suggested procedure:

1. Present the word with helpful morphemic elements underlined (e.g., seis mo graph).

2. Ask students to use the underlined words to determine the meaning if they can and to explain their reasoning. If they correctly predict the word meaning, write it under the word and skip steps 3 and 4.

3. Give extra "level-one clues" to the students by writing easier words using the same morphemes written underneath. Ask for predicted meanings.

4. Give extra "level-two clues", which are the morpheme meanings, and ask for predictions until they determine the correct meaning.

Affixes

Considering the fact that many words with common affixes (e.g., rewrite and lonely) are part of most children's vocabularies, teachers can begin their instruction from what their students know about those words to help decode the unknown ones.

Even though available are a number of lists that consist of hundreds of affixes, and Greek and Latin roots, it is not possible or reasonable to teach each element of these lists. Instead, teachers should select the most commonly used or important elements to teach, and model strategies for dividing words into meaningful parts.

Prefixes

Graves and Hammond (1980) explain the three reasons for teaching prefixes which are (1) there are relatively few prefixes, most of which are used in a large number of words, (2) most prefixes have

constant meanings that can be easily defined, and (3) most prefixes have consistent spellings. White, Sowell, and Yanagihara (1989) report that only twenty prefixes account for 97% of prefixed words that appear in printed school English (see Table 1). Teaching these most frequently occurring prefixes to students can be beneficial to their increased vocabulary knowledge.

Table 1: The Most Frequent Affixes in Printed School English

Rank	Prefix	Percent of All Prefixed Words	Suffix	Percent of All Suffixed Words
1	un-	26%	-s, -es	31%
2	re-	14%	-ed	20%
3	in-, im-, il-, ir- (not)	11%	-ing	14%
4	dis-	7%	-ly	7%
5	en-, em-	4%	-er, -or (agent)	4%
6	non-	4%	-ion, -tion, -ation, -ition	4%
7	in-, im- (in)	3%	-able, -ible	2%
8	over-	3%	-al, -ial	1%
9	mis-	3%	-y	1%
10	sub-	3%	-ness	1%
11	pre-	3%	-ity, -ty	1%
12	inter-	3%	-ment	1%
13	fore-	3%	-ic	1%
14	de-	2%	-ous, -eous, -ious	1%
15	trans-	2%	-en	1%
16	super-	1%	-er (comparative)	1%
17	semi-	1%	-ive, -ative, -tive	1%
18	anti-	1%	-ful	1%
19	mid-	1%	-less	1%
20	under- (too little)	1%	-est	1%
	All others	3%	All others	7%

With regard to how to teach prefixes, instead of spending time teaching students only the meaning of words, Graves and Hammond (1980) suggest the following context and definition procedure:

- Present the prefix in isolation and also attached to four words (e.g., con-, construct, converge, conference, connect).
- Define the prefix. For example, *con-* means put together.
- Use the whole words in sentences.
  - Builders *construct* houses.
  - The train and the bus *converged* on the intersection.
  - The *conference* on dieting attracted 2,000 people.
  - He *connected* the TV and DVD player with a cable.
- Define the words.
  - To *construct* means to put or fit together.
  - To *converge* means to come together at a point.
  - A *conference* is a meeting where people come together.
  - To *connect* things is to join together.
- After completing and discussing the above steps, give students an opportunity to find other words exemplifying the prefix.
- Have students add examples to their vocabulary notebook.

Suffixes

Table 1 also shows the most frequently occurring suffixes in printed school English, which are inflectional morphemes such as noun endings (-s, -es), verb endings (-ed, -ing, -en), and adjective endings (-er, -est). Fortunately, students are familiar with these morphemes; therefore, they have few problems learning and using them.

Adams (1990) comments that less able readers from time to time find the length of some suffixed words overwhelming. With the aid of teachers, students learn how to recognize the letter patterns of common

suffixes, which helps them to distinguish root from suffix. This breaks down the size of the word and lets students focus on relevant information within the word.

Some suffixes (e.g., -ful and –less) are meaningful components of words, which provide word meanings in much the same way as prefixes. Even suffixes without stable meanings (e.g., -ly and -tion) also help students identify words. These suffixes make them aware of the grammatical function of words in sentences. For instance, *-ly* indicates that a word is an adverb.

Roots

Many researchers and educators argue about whether it is profitable to students to teach word roots. Some assert that the modern meanings of words often do not reflect the meanings of their historical roots, and that readers might be misled by a literal translation of roots to meaning (Nagy & Anderson, 1984). For instance, the meaning of *mortal* or *immortal* may be decoded by the knowledge of *-mort* root, which refers to *death*, but it may not help students figure out the meaning of *mortgage* or *mortify*.

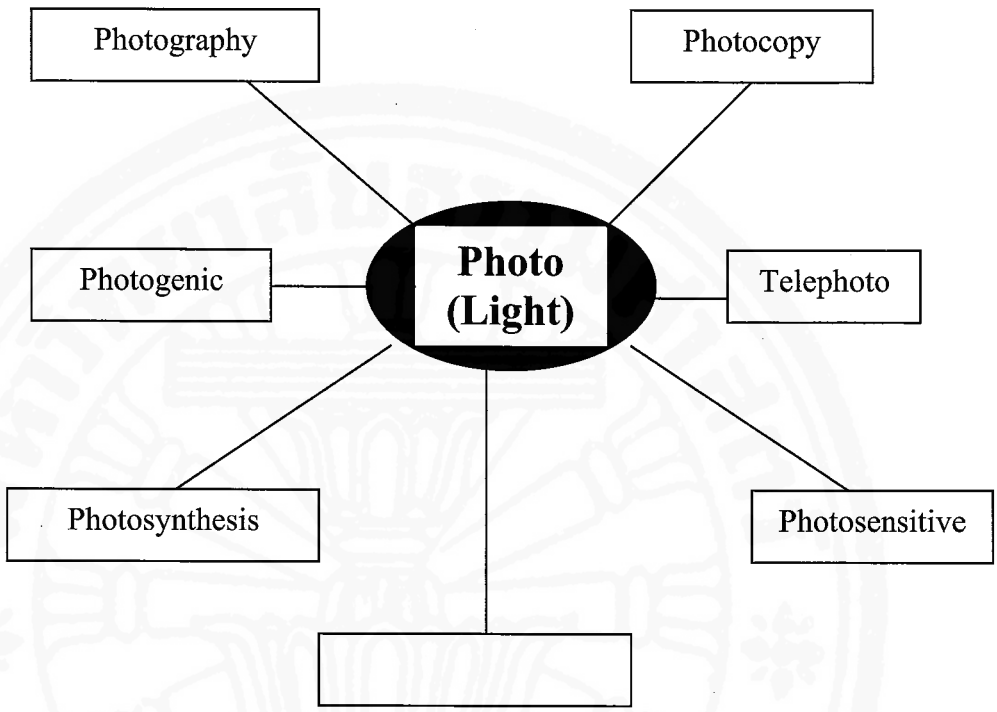
On the other hand, Pressley (1988) explains that having students elaborate basic information makes it more memorable. Thus, teaching roots makes new words more memorable by adding a story to their definition.

Even though instruction often begins with Latin roots, Templeton (1983) expresses the view that instruction should first begin with the Greek roots because they are easier to locate within words. For example, it is easier to deal with *tele* as in *telephone* and *telegraph* than it is with the Latin root *regere*, which takes the forms *reg* (as in *regular*), *rect* (as in *direct*), and *rul* (as in *ruler*). He further suggests that, after the most

common Greek roots, the Latin roots that have the most stable form and meanings should be the focus in root word instruction. These Latin roots include *spect* (to look), *press* (to press), *port* (to carry), *form* (to shape), *pose* (to put or place), *tract* (to draw or pull), *spir* (to breathe), and *dict* (to say or speak). A good procedure for teachers is to begin with a word the students know (e.g., porter) and develop with the students a list of words that have the same root (e.g., transport, import, export, teleport). The advantage of teaching words in morphological families is that students learn new words by analogy with familiar words, which is what teachers expect them to do when they encounter an unfamiliar word.

Apart from that, discussing derivatives as part of the introduction of a new word is useful and motivational (Nagy & Anderson, 1984). Teachers can use a word-part web, such as in Figure 1, to teach the Greek and Latin roots. Not only does the web teach a key word, but it also introduces students to many new words. In this way, words become more memorable for students.

Figure 1: Word-part Web



Conclusion

This paper has indicated the significance of vocabulary development for EFL students and reiterated that teachers play a prominent part in helping students develop strong vocabularies. However, due to the weakness of current vocabulary instruction in Thailand, many students fail to develop their vocabulary knowledge adequately. Thus, this paper argues that teaching morphemic analysis as one of the most effective strategies for students to increase their vocabulary is essential to their success, both in school and beyond.

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