

Vocabulary Learning Strategies of Thai University Students and Its Relationship to Vocabulary Size

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Abstract

The present study aimed to investigate vocabulary learning strategies employed by Thai university students. The relationship between the students' vocabulary learning strategies and their vocabulary size was also explored. The subjects of this study were 257 Prince of Songkla University students in the 6 fields of study: medicine, dentistry, nursing, engineering, accounting, hospitality and tourism which will be highly affected by the forthcoming ASEAN Economy Community (AEC) in 2015. The research data were obtained from 2 instruments: the vocabulary learning strategy questionnaire and the bilingual English-Thai version of vocabulary size test. The study revealed that the subjects slightly employed the overall vocabulary learning strategies. Out of 39 vocabulary learning strategies, the subjects employed 2 strategies at a high level, 18 strategies at a moderate level, and 19 strategies at a low level. The subjects' use of the overall vocabulary learning strategies was moderately correlated with their vocabulary size. Seventeen vocabulary learning strategies were correlated with their vocabulary size at a moderate degree while the rest at a low degree.

Keywords: Vocabulary learning strategies, vocabulary size, Thai university students

1. Introduction

English is a common language in many different fields including business and education (Crystal, 1997). No one denies the prominence of English language in the present time as a universal language. With the effect of AESAN Economic Community (AEC) in 2015, English will increasingly become more important for member countries' workers in terms of employment opportunities, especially Thais, whose English proficiency was founded to be at "a very low proficiency level" according to the EF English Proficiency Index (EF EPI, 2013). In order to take the benefit of this open trade, Thai workers need to have an adequate English proficiency for communication.

English proficiency has been found to be closely related to vocabulary knowledge (e.g., Laufer, 1998; Nation and Meara, 2002). This strong relationship can be explained by the role of vocabulary in language learning. Vocabulary is considered as a very essential component of any languages (Waring and Nation, 1997). To be able to achieve high language performance, learners need large and rich vocabulary repertoire to use language effectively (McCarthy, 1990 and 1998). Lack of vocabulary obstructs learners' language development as a higher language level requires a higher amount of words (Waring and Nation, 1997, Hu and Nation, 2000). Nandy (1994) asserts that "The more words one is able to use correctly, the better one will be able to express oneself easily and with self-confidence and to understand the world one lives in" (p. 1). Insufficient vocabulary emerges as a major problem among L2 learners, including Thai learners, causing their poor language performance in 4 skills: reading, listening, speaking, and writing skills (Sawangwarorose, 1984 and Sukkrong, 2010).

Consequently, in recent years many researchers have paid more attention on finding ways to develop learners' vocabulary level. Using vocabulary learning strategies is one of effective tools to enhance learners' vocabulary size (e.g., Cunningsworth, 1995; Nation, 2001). According to Nation (2001), large vocabulary can be acquired with the help of vocabulary learning strategies and they are useful for learners in all language proficiencies. Cunningsworth (1995) also stated that helping learners develop their vocabulary learning strategies is a powerful approach to help learners acquire large vocabulary repertoire.

The main advantage of vocabulary learning strategies is that they allow learners to take more control of their own learning (Scharle and Szabo, 2000; Nation, 2001) and also develop "learner autonomy, independence, and self-direction" (Oxford and Nyikos, 1989, p. 291). A number of scholars, for example, Gairns and Redman (1986) and Sokmen (1997), have recognized the importance of learners' independence in vocabulary learning. According to Gairns and Redman (1986), after the elementary level where students are provided with plenty of new English words in class, it is difficult for teachers to select all useful words to them, so learners must have more responsibilities for their own learning of vocabulary. Sokmen (1997) believes that it is impossible for learners to remember all words they need in class and to acquire large vocabulary they need to take responsibilities for their own learning.

As discussed above, vocabulary learning strategies have been shown to help learners develop their vocabulary knowledge. Thus, it is worthwhile to study vocabulary learning strategies used by Prince of Songkla University students and to see the relationship between vocabulary

learning strategies and the students' vocabulary size.

2. Literature Review

2.1 Definition and Classification of Vocabulary Learning Strategies

Vocabulary learning strategies are considered a part of language learning strategies (Nation, 2001). For Cameron (2001), vocabulary learning strategies are “the actions that learners take to help themselves understand and remember vocabulary items” (p. 92). Catalan (2003), based on Rubin's (1987), Wenden's (1987), Oxford's (1990), and Schmitt's (1997) definition, defines vocabulary learning strategies as “the mechanism used in order to learn vocabulary as well as steps or actions taken by students (a) to find out the meaning of unknown words, (b) to retain them in long-term memory, (c) to recall them at will, and (d) to use them in oral or written mode” (p. 56). According to Intaraprasert (2004), vocabulary learning strategies are “any set of techniques or learning behaviors, which language learners reported using in order to discover the meaning of new word, to retain the knowledge of newly-learned words, and to expand one's knowledge of vocabulary” (p. 53).

Many classifications of vocabulary learning strategies have been proposed by scholars (e.g., Oxford, 1990; Gu and Johnson, 1996; Schmitt, 1997). Among these classifications, one of the well-known and well-accepted among researchers (e.g., Hamzah and Kafipour and Abdulla, 2009; Sripetpun, 2000) is that by Schmitt (1997) who divides vocabulary learning strategies into 5 sub-categories: (1) memory strategies – connecting a new word with formerly learned knowledge, (2) cognitive strategies – similar to memory strategies but focusing on manipulative mechanical process, (3) metacognitive strategies – processes of learning and making decisions about planning, monitoring, and evaluating the best way to study, (4) determination strategies – used by individual to discover a word's meaning without consulting other people, and (5) social strategies – a way to learn a new word by interacting with other people.

3. Research Questions

1. What is the frequency of vocabulary learning strategy used by Prince of Songkla University students?
2. What are the relationships between vocabulary learning strategies and vocabulary size?

4. Methodology

4.1 Subjects

The subjects of this study were 257 Prince of Songkla University students in the 6 fields of study which will be highly affected by the opening of ASEAN Economy Community (AEC). These 257 subjects were 39 from medicine, 29 from dentistry, 48 from nursing, 90 from engineering, 25 from accounting, and 26 from hospitality and tourism.

4.2 Research Instruments

4.2.1 Vocabulary Learning Strategy Questionnaire

The purpose of this questionnaire was to investigate students' frequency of vocabulary learning strategy use. The questionnaire was adapted from that of Schmitt (1997) and Siriwan (2007). The reliability coefficient of this questionnaire was .92. All 39 items in the questionnaire were divided into 5 main categories of vocabulary learning strategies: 11 items in memory category, 5 items in cognitive category, 9 items in metacognitive category, 7 items in determination category, and 7 items in social category. The rating scale covered six numbers ranging from 0 (never) to 5 (always).

The interpretation of ratings in the questionnaire was based on Best (1981). Scores 0 - 1.5 indicate as a very low use, 1.50 – 2.49 as a low use, 2.50 – 3.49 as a moderate use, 3.50 – 4.49 as a high use, and 4.50 – 5.00 as a very high use.

4.2.2 The Bilingual English-Thai Version of Vocabulary Size Test

The bilingual version of vocabulary size test adopted from the monolingual English version of vocabulary size test by Nation and Beglar (2007) was used to measure students' vocabulary size. This bilingual version test was a multiple-choice format consisting of 14th 1000 word levels with a total of 140 items – there were 10 items from each 1000 word level. In this test, learners were asked to choose the closest definition to the target word. Here is an example, item 45 from the 5th 1000 word level.

45. compost: We need some compost.

- a. การสนับสนุนช่วยเหลืออย่างเต็มที่
- b. ช่วยให้ผู้รู้สึกดีขึ้น
- c. วัสดุแข็งทำขึ้นจากหินและดินทรายผสมกัน
- d. สิ่งที่เกิดจากการเน่าเปื่อยของพืช
- e. ไม่ทราบคำตอบ

To estimate students' vocabulary size, their total scores from the bilingual English-Thai version of vocabulary size test need to be multiplied by 100. If a student scores 35 out of 140, their vocabulary size will be 3500 word families (Nation and Beglar, 2007).

4.3 Data Collection

The vocabulary learning strategy questionnaire and the bilingual English-Thai version of vocabulary size test were distributed after the research purposes were explained to 257 subjects. Then, the subjects completed these 2 research instruments.

4.4 Data Analysis

To answer the first research question, descriptive statistics was used to compute the mean and standard deviations of the subjects' use of vocabulary learning strategies. To answer the second research question, Pearson correlation was applied to test the relationship between vocabulary learning strategies and vocabulary size.

5. Results

Research Question 1: What is the frequency of vocabulary learning strategy used by Prince of Songkla University students?

The frequency of vocabulary learning strategy use reported by 257 Prince of Songkla University students is presented in Table 1.

Table 1. Frequency of vocabulary learning strategy use

Strategies	Mean	S.D.	Level of use
Determination	2.80	1.02	Medium
Metacognitive	2.58	1.06	Medium
Memory	2.43	0.97	Low
Cognitive	2.37	1.07	Low
Social	2.29	0.98	Low
Overall strategies	2.49	0.91	Low

In Table 1, Prince of Songkla University subjects used the overall vocabulary learning strategies at a low level with the mean score of 2.49 (S.D. = 0.91). In other words, the students were found to be low strategy users for the overall vocabulary learning strategies.

Determination strategies were the most frequently used strategies by the students (mean = 2.80, S.D. = 1.02), followed by metacognitive strategies (mean = 2.58, S.D. = 1.06), memory strategies (mean = 2.43, S.D. = 0.97), cognitive strategies (mean = 2.37, S.D. = 1.07), and social strategies (mean = 2.29, S.D. = 0.98), respectively. In terms of levels of use, the subjects employed the determination and metacognitive strategies at a moderate level while memory, cognitive, and social strategies at a low level.

There were a total of 39 vocabulary learning strategies under the 5 above-mentioned strategy categories. The subjects employed 39 strategies at different degrees: a high degree, a moderate degree, and a low degree.

Table 2 shows the vocabulary learning strategies which were highly employed by the subjects.

Table 2. The high frequently used strategies

No.	Strategies	Category	Mean	S.D.
1	Look up words in an English-Thai dictionary	Determination	3.56	1.19
2	Listen to English songs	Metacognitive	3.55	1.35

As table 2 displays, there were only 2 out of 39 vocabulary learning strategies which were

highly used by the subjects and these 2 strategies were “listen to English songs” (Item 1) in metacognitive category, and “look up a word in an English-Thai dictionary” (Item 2) in determination category.

The vocabulary learning strategies moderately employed by the subjects are shown in Table 3.

Table 3. The moderate frequently used strategies

No.	Strategies	Category	Mean	S.D.
3	Use English websites	Metacognitive	3.41	1.41
4	Watch English television programs / English films	Metacognitive	3.21	1.54
5	Learn words through verbal repetition	Cognitive	3.00	1.13
6	Ask classmates to translate the meanings of words	Social	2.98	1.24
7	Guess the meanings of words from textual context	Determination	2.96	1.32
8	Learn words through written repetition	Cognitive	2.86	1.23
9	Look up words in a Thai-English dictionary	Determination	2.85	1.23
10	Say words aloud when studying	Memory	2.82	1.26
11	Analyze affixes and roots to guess the meanings of words	Determination	2.80	1.39
12	Make a group of words by topic for reviewing	Memory	2.77	1.12
13	Analyze parts of speech to guess the meanings of words	Determination	2.77	1.37
14	Study words with pictures	Memory	2.75	1.07
15	Analyze any available pictures or gestures to understand the meanings of words	Determination	2.74	1.31
16	Translate the meanings of words from English into Thai	Metacognitive	2.72	1.24
17	Use English printed matter	Metacognitive	2.69	1.40
18	Play vocabulary games	Metacognitive	2.62	1.38
19	Associate the word with other words you have learned	Memory	2.59	1.34
20	Connect words to personal experiences	Memory	2.54	1.39

In Table 3, of these 18 vocabulary learning strategies which were moderately employed by the subjects, 5 strategies were in memory category (Items 10, 12, 14, 19, and 20), 5 strategies in metacognitive category (Items 3, 4, 16, 17, and 18), 5 strategies in determination category (Items 7, 9, 11, 13, 15, and 17), 2 strategies in cognitive category (Items 5 and 8), and 1 strategy in social category (Item 6).

The strategies slightly employed by the subjects are displayed in Table 4.

Table 4. The low frequently used strategies

No.	Strategies	Category	Mean	S.D.
21	Remember the word from its “root”, “prefix”, and “suffix”	Memory	2.41	1.38
22	Discover new meanings through group work activities	Social	2.40	1.21
23	Connect the word to its synonyms and antonyms	Memory	2.38	1.24
24	Ask teachers to translate the meanings of words	Social	2.35	1.28
25	Translate the meanings of the words from Thai into English	Metacognitive	2.30	1.30
26	Look up words in an English-English dictionary	Determination	2.25	1.33
27	Test yourself with word tests	Metacognitive	2.23	1.30
28	Learn words of an idiom together	Memory	2.21	1.45
29	Make a group of words by alphabetical order for reviewing	Memory	2.17	1.22
30	Listen to a tape of word lists	Cognitive	2.14	1.27
31	Keep a vocabulary notebook wherever you go	Cognitive	2.14	1.34
32	Interact with classmates	Social	2.19	1.29
33	Use words in sentences	Memory	2.09	1.23
34	Stick the word and its meaning in a place where it can be obviously seen	Memory	2.03	1.38
35	Interact with an English teacher	Social	1.95	1.42
36	Ask other people to translate the meanings of words	Social	1.97	1.36
37	Interact with native English speakers	Social	1.94	1.36
38	Study words over time	Metacognitive	1.88	1.19
39	Use vocabulary flashcards	Cognitive	1.70	1.41

From these 19 vocabulary learning strategies slightly used by the subjects, 6 strategies belong to memory category (Items 21, 23, 28, 29, 33, and 34), 6 strategies belong to social category (Items 22, 24, 32, 35, 36, and 37), 3 strategies belong to cognitive category (Items 30, 31, and 39), 3 strategies belong to metacognitive category (Items 25, 27, and 38), and 1 strategy belongs to determination category (Item 26).

Research Question 2: What are the relationships between vocabulary learning strategies and vocabulary size?

The correlations between the 257 subjects’ use of vocabulary learning strategies and their vocabulary size are shown in Table 5. The interpretation of the correlation coefficient was based on Ratner (2011). The values 0 to 0.3 indicate a weak relationship, 0.3 to 0.7 a moderate relationship, and 0.7 to 1.0 a strong relationship.

Table 5. Relationship between vocabulary learning strategies and vocabulary size

Strategies	r	Sig	Level of correlation
Metacognitive	.395	.000**	Moderate
Memory	.373	.000**	Moderate
Determination	.355	.000**	Moderate
Social	.333	.000**	Moderate
Cognitive	.275	.000**	Weak
Overall	.388	.000**	Moderate

** Significant at the .01 level

As shown in Table 5, the correlation between the subjects' use of the overall vocabulary learning strategies and their vocabulary size was significant at a moderate level ($r = 0.388$, $p < .01$). In other words, subjects with high frequency of vocabulary learning strategy use had greater vocabulary repertoire, and vice versa, indicating that the higher use of vocabulary learning strategies leads subjects to the greater vocabulary size.

The 4 strategy categories: metacognitive, memory, determination, and social strategies were correlated with vocabulary size at a moderate level ($r = .395$, $.373$, $.355$, and $.333$), respectively; metacognitive strategies had the highest correlation among them. Only cognitive strategies were correlated with vocabulary size at a weak level ($r = .275$).

The relationships between 39 vocabulary learning strategies and vocabulary size were at two different levels: a moderate level and a low level. Table 6 shows the vocabulary learning strategies which have a moderate contribution to the subjects' vocabulary size.

Table 6. The vocabulary learning strategies which moderately contributed to the students' vocabulary size

No.	Strategies	categories	r	Sig
1	Remember the word from its "root", "prefix", and "suffix"	Memory	.414	.000**
2	Guess the meanings of words from textual context	Determination	.397	.000**
3	Analyze affixes and roots to guess the meaning of words	Determination	.388	.000**
4	Learn words through verbal repetition	Cognitive	.386	.000**
5	Use English printed matter	Metacognitive	.386	.000**
6	Analyze parts of speech to guess the meanings of words	Determination	.371	.000**
7	Learn words of an idiom together	Memory	.357	.000**
8	Associate the word with other words you have learned	Memory	.354	.000**

** Significant at the .01 level

Table 6. (Continued)

No.	Strategies	categories	r	Sig
9	<i>Watch English television programs / English films</i>	Metacognitive	.346	.000**
10	<i>Use English websites</i>	Metacognitive	.344	.000**
11	Connect the word to its synonyms and antonyms	Memory	.338	.000**
12	Listen to English songs	Metacognitive	.335	.000**
13	Connect words to personal experiences	Memory	.332	.000**
14	Learn words through written repetition	Cognitive	.318	.000**
15	Use vocabulary flashcards	Cognitive	.316	.000**
16	Interact with English teachers	Social	.352	.000**
17	Play vocabulary games	Metacognitive	.305	.000**

** Significant at the .01 level

In Table 6, 17 out of 39 vocabulary learning strategies were correlated with the subjects' vocabulary size at a moderate level: the strategy "remember the word from its root, prefix, and suffix" had the highest correlation with the subjects' vocabulary size; the strategies "guess the meanings of words from textual context" and "analyze affixes and roots to guess the meaning of words" had the second and the third highest correlation. The rest of the other strategy items were correlated with the subjects' vocabulary size at a weak level.

It should be noted that among these 17 strategies, only one social strategy "interact with English teachers" was found to be moderately correlated with the subjects' vocabulary size while the others were slightly correlated with their vocabulary size.

6. Conclusion

The findings of the present investigation are summarized as follows:

1. Prince of Songkla University subjects employed the overall vocabulary learning strategies at a low level. The most frequently used strategies were determination strategies, followed by metacognitive strategies, memory strategies, cognitive strategies, and social strategies, respectively. Among 39 vocabulary learning strategies, the subjects highly used 2 strategies, moderately used 18 strategies, and slightly used 19 strategies.

2. The overall use of vocabulary learning strategies was moderately correlated with the subjects' vocabulary size. Seventeen out of 39 vocabulary learning strategies were correlated with vocabulary size at a moderate level while the rest of the strategy items at a low level.

7. Discussion

The finding that the subjects employed the overall vocabulary learning strategies at a low level is consistent with previous studies (Hamzah and Kafipour and Abdulla, 2009; Asgari and Mustapha, 2011) which found that L2 learners tend not to highly employ vocabulary learning strategies. The subjects' low frequency of vocabulary learning strategy use may be due to the low attention on teaching and learning vocabulary. Carter and McCarthy (1988),

Fan (2003), and Siriwan (2007) stated that in Asean countries including Thailand, vocabulary is usually given little emphasis in teaching and learning context; the focus is mostly on reading, listening, speaking, and writing skills. As a result, teachers do not pay attention to introducing students to various learning techniques or strategies to develop vocabulary knowledge, making students unfamiliar with many vocabulary learning strategies and lead to their low frequency of use.

Moreover, English learning in Thai context is primarily a teacher-centered approach. In this learning environment, students rely heavily on teachers and slightly on themselves (Rattavich, 2013). It seems that teacher-centered approach makes Thai students take fewer responsibilities or initiations of their own learning and this could impact students' low level of vocabulary learning strategy use. According to Oxford and Nyikos (1989), vocabulary learning strategies are methods that allow learners to enhance their learning autonomy, independence, and self-direction so the level of vocabulary learning strategy use highly depend on students themselves. Students with more control of their own learning will employ strategies more frequently.

Among 5 main strategy categories, the subjects reported that determination strategies were the most frequently used strategies and social strategies were the least used strategies. This finding is in line with several studies (e.g., Sarani and Kafipour, 2008; Komol and Sripetpun, 2011) which supported that learners are interested in using determination strategies more than other strategy categories and the social strategies were generally found the least use among L2 learners. The least use of social strategies may be because Thai educational university curriculum does not provide much social learning context. Thai university teachers generally adopted the more traditional teacher-centered or lecture-based approach in classroom (Rattavich, 2013); the activities in class are mostly centered on teachers and students only follow the teachers' instructions. Thus, students would have fewer opportunities to use social strategies such as discussion or group work in their learning, including vocabulary learning.

The finding that there was a moderate relationship between the overall vocabulary learning strategies and vocabulary size is in agreement with many scholars, e.g., Gu and Johnson (1996) Komol & Sripetpun (2011), and Waldvogel (2011), who supported that the use of vocabulary learning strategies seems to relate to learners' vocabulary knowledge. In the other words, students with high frequently use of vocabulary learning strategies have greater vocabulary size, and vice versa.

Among 17 vocabulary learning strategies with a moderate contribution to vocabulary size, only one strategy "listen to English songs" was highly employed by the subjects. The high level of use of this strategy may be because songs are readily available and easy to access. Moreover, the researchers such as Bada and Okan (2000), Ghada et al. (2011) found that L2 students have highest preference for auditory learning and listening to songs is one of the activities that students prefer.

Interestingly, the subjects reported employing the strategy "look up a word in an English-Thai dictionary" at a high degree while this strategy only slightly contributed to their vocabulary size. The finding about the high use of this strategy is in line with Schmitt (1997) who found

that L2 learners utilize a bilingual dictionary as a useful resource in learning vocabulary and they often consult a bilingual dictionary when they encounter unfamiliar words. However, Komol and Sripetpun's (2011) revealed that Thai university students tend to have problem with finding the right words from an English-Thai dictionary. Thus, this problem might explain the low contribution of this strategy to learners' vocabulary size.

The subjects moderately employed 11 out of 17 effective vocabulary learning strategies. These strategies were "analyze parts of speech to guess the meanings of words", "analyze affixes and roots to guess the meanings of words", "learn words through verbal repetition", "use English printed matter", "guess the meanings of words from textual context", "associate the word with other words you have learned", "watch English television programs / English films", "use English websites", "connect word to personal experiences", "learn words through written repetition", and "play vocabulary games".

The subjects slightly used 5 out of 17 high effective vocabulary learning strategies. They were "remember the word from its root, prefix, and suffix", "learn words of an idiom together", "connect the word to its synonyms and antonyms", "use vocabulary flashcards", and "interaction with English teachers".

It is interesting that although the strategy "remember the word from its root, prefix, and suffix" was the most important contribution to students' vocabulary size compared to other vocabulary learning strategies, it was slightly employed by the subjects. The low frequency of use may be because students had difficulty with identifying word parts or were not taught to make use of roots, prefixes, and suffixes. There are three types of word parts: prefixes, roots, and suffixes which put together to create a thousand of words. The knowledge of word parts will help students to remember unknown words. However, it is not easy to unlock them. This is because there are a number of prefixes, suffixes in English language and some word parts are not recognized by students. Moreover, the prefixes and suffixes of some words are hardly identified such as the words decode (de + code), relative (relate + tive). Laufer (1990) and Kocic (2008) also found that suffix synforms tended to be major problems for L2 learners. Thus, this strategy needs to be effectively taught to students.

The findings that the subjects employed many vocabulary learning strategies at a low level might not be due to the fact that they did not realize the contribution of vocabulary learning strategies to their vocabulary knowledge. Although, a number of studies on vocabulary learning strategies have been conducted in Thailand, the findings about their significant roles are not known to general learners. In addition, vocabulary learning is not a subject in school itself; students learn vocabulary as a part of other skills such as reading, listening, writing, and speaking. In other words, vocabulary is not explicitly taught as a subject. Students learn them as assigned in their other language subjects or even expected to acquire incidentally or their own.

As a result, teachers should realize how and what important vocabulary learning strategies are and encourage learners to apply them in vocabulary learning. Students themselves need to be informed of the benefits of vocabulary learning strategies, to know their limitation in using vocabulary learning strategies, and to take more responsibility for their own vocabulary

learning. The use of vocabulary learning strategies can lead students to large vocabulary size. According to McCarthy (1990) and Hu and Nation (2000), insufficient vocabulary knowledge will obstruct students to achieve high language performances of 4 skills: reading, listening, writing, and speaking, thus students need the high vocabulary size to use language effectively.

8. Further Studies

This study aimed to examine the vocabulary learning strategies of Prince of Songkla University students. More research should be done with various groups of university students to better understand the roles of vocabulary learning strategies. In addition to using the questionnaire, further studies should include other methods such as interview, observation, journal writing in order to get in-depth information about students' use of vocabulary learning strategies. This may also allow researchers to discover further aspects such as students' attitudes towards learning English, students' problems with the use of vocabulary learning strategies, etc.

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