The Perception and Use of Vocabulary Learning Strategies Among Non-English Majors at HUTECH University

Tran Doan, HUTECH University, Vietnam
Thu Nguyen, HUTECH University, Vietnam

The Barcelona Conference on Education 2024
Official Conference Proceedings

Abstract
The study investigates students' perceptions and students' use of vocabulary learning strategies (VLS) among non-English majors at Ho Chi Minh City University of Technology (HUTECH). Three main issues addressed are (1) to determine students' perception in terms of their awareness and the level of the importance of vocabulary learning strategies; (2) students' use in terms of frequency and preference; (3) the correlation between students' perception in terms of the level of the importance of vocabulary learning strategies and their use in terms of frequency. Mixed method is applied in this investigation; additionally, questionnaires focus on social group, memory group, cognitive group, and metacognitive group with 350 sophomores from four different majors, and 10 sophomores are invited in structured interview. The results showed that the vocabulary learning strategies of the current study were well-aware. All those strategies were perceived importantly in learning vocabulary and four groups of vocabulary were used frequently. Students' responses in terms of preference also confirmed students' use in terms of frequency. On the other hand, students' perception correlated with students' use in only cognitive group of vocabulary learning strategies, but not the three others.

Keywords: Vocabulary Learning Strategies, Students' Perceptions, Students' Use, Mixed Methods, Non-English Majors

Introduction

According to the Education First English Proficiency Index (EF EPI) in 2024, Vietnamese people's proficiency in using English is assessed at low proficiency, ranking at 63rd out of 116 countries and religions. In Asia, Vietnam ranked the 8th position out of 23 countries and regions. Therefore, enhencing the proficency in using English is very essential for Vietnamese learners. With the inevitable turning points of nation's development and a government undertaking to enhance English as the second language in Vietnam education system (Le, 2024), the role of English is highly assessed and emphasized as a pivotal mission in the historical era.

However, according to Dinh (2011), EFL students, undeniably, usually stick to common practices: (1) concentrating on word lists provided by their teachers; yet, they are normally unable to complete the list since they are not sufficiently motivated; (2) having no successful strategies to learn vocabulary or lacking effective application of vocabulary for outside classroom activities or even inside classroom situations. In fact, English teachers' evaluations and students' achievement in English subject recently show that the most salient issue is the lack of vocabulary of students. Moreover, the major problem encountered practically by students that teachers of English have been concerned about for years is deficient vocabulary (Mumary, 2017). Due to their inadequate word knowledge, students usually struggle to deal with performing the skills of English, even when they are provided with progressive English language education. It cannot be denied that vocabulary plays an important role in learning English; nevertheless, little is known about student's perceptions and students' use towards vocabulary learning strategies researches in the context of HUTECH.

Therefore, this study seeks to obtain comprehensive data which would help to address the issues regarding vocabulary learning strategies, an investigation on vocabulary learning strategies is necessary to consolidate students' vocabulary acquisition as well as enhance students' vocabulary size with the following questions:

(1) How do non-English major students in HUTECH perceive vocabulary learning strategies in terms of awareness and the level of importance of the strategies?
(2) How do non-English major students in HUTECH use vocabulary learning strategies in terms of frequency and preference?
(3) What is the correlation between students' perception and their use of vocabulary learning strategies?

Practically, the findings could make important contributions to raising students' awareness in vocabulary learning strategies and expected to extend students' recognition for strategies applied in vocabulary learning. Furthermore, with the data collected, the investigation is also beneficial for English teachers to review their strategies in vocabulary teaching and determine their students' strategies in vocabulary learning, from which teachers can adapt their instruction or revise their syllabi in English language teaching. They could employ effective approaches in helping students to improve their English language in general and vocabulary learning in particular. Theoretically, the findings may provide additional evidences with respect to language researchers for references in relating to the perception and use of vocabulary learning strategies.

Literature

In order to achieve fluent level in four language skills in English (listening, reading, writing, and speaking), vocabulary is asserted to be "the core or heart of language" (Lewis, 1993, p. 89). Additionally, Nation (2001) stated that language use is enabled by knowledge of vocabulary; conversely, vocabulary knowledge leads to an increase in language use. Furthermore, Nation (1990) argues that a learner should know approximately 2,000 to 3,000 words for using English effectively. Furthermore, in order to read in advanced, authentic and academic contexts, a learner is required to have at least 5,000 words (Hirsh & Nation, 1992). Similarly, Schmitt (2000) also agrees that 5,000 words are a necessary limit to become a better English learner. Consequently, learning and enhancing vocabulary effectively is a tremendous challenge for English learners in general and non-English majors in particular. Understanding this kind of students' obstacle, many researchers (Oxford, 1990; Nation, 1990; Stoffer, 1995; Gu & Johnson, 1996; Kudo, 1999; Schmitt, 1997, 2000; Istvan, 2016) have been creating vocabulary learning strategies to help students learn vocabulary more effectively in order to develop the source of vocabulary needed for their language proficiency.

In this study, the thesis researcher adopts Schmitt's vocabulary learning strategies (1997) with the limitation of four groups for the questionnaire in investigation because the version in 1997 was adequate and similar with students' activitives in HUTECH recently. Firstly, memory strategies, the phrase "memory strategies" is abbreviated to "MEM" and known as mnemonics. These strategies relate to previous learned words or experiences, images of word form or meaning, and activities of memorable process (Schmitt, 2000). Secondly, cognitive strategies (COG), Oxford (1990) identifies cognitive strategies that are "manipulation or transformation of the target language by the learner" (p. 43). Cognitive strategies are similar to memory strategies but elaborative mental process is not the main remark. Repetition and mechanic are employed instead (Schmitt, 2000). Thirdly, the group of metacognitive strategies (MET), these strategies are considered as methods to review and evaluate students' word knowledge in learning process generally (Schmitt, 2000). In particular, the activities include English-language media, spaced word practice, word self-testing, skipping or passing new words, studying new word over time, and vocabulary knowledge assessment at the end of a semester, a course or after a period of time are integrated in the process. Finally, social strategies, Schmitt (2000) argues that social strategies (SOC) comprise activities to interact with other people such as teachers, classmates, friends, foreigners or anyone for enhancing word knowledge.

In the Vietnamese setting, vocabulary teaching and learning also attracts considerable attention from the local language scholars (e.g., Tran, 2008; Le, 2009; Le, 2010; Nguyen, 2012; Nguyen, 2013) in teaching and learning of English as a Foreign Language (EFL).

The conceptual framework of the current study is illustrated by the figure below.

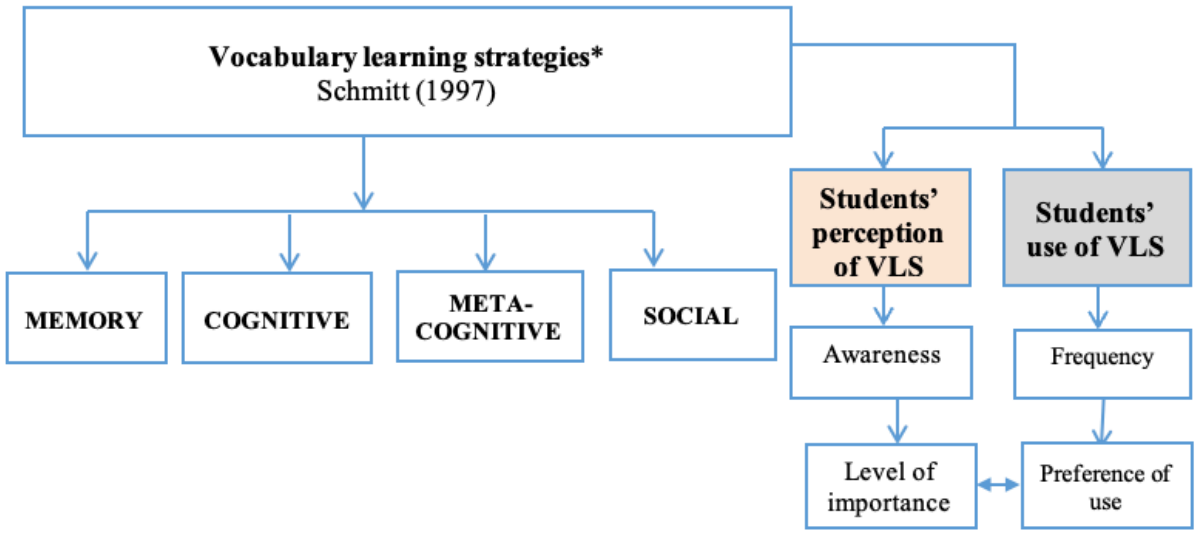

Figure 1: The Conceptual Framework of the Current Study

Methodology

Mixed methods approach is a combination of quantitative and qualitative data because with this design "words, pictures, and narrative can be used to add meaning to numbers" (Johnson & Onwuegbuzie, 2004, p. 21). Nagy and Scott (2000) also agree that "qualitative data (words, pictures, and narrative) combined with quantitative, numerical data from a larger-scale study on the same issue allow the generalization of our research results for future studies and examinations" (p. 3). Furthermore, McKim (2017) affirms "studies that use a mixed methods approach gain a deeper, broader understanding of the phenomenon than studies that do not utilize both a quantitative and qualitative approach" (p. 203). In the current study, specifically, students' perception towards vocabulary learning strategies, and students' use of vocabulary learning strategies were explored under quantitative researches with two questionnaires. Furthermore, qualitative research was conducted to recognize students' use in terms of preference and their own VLS with individual interviews. By doing so, students' strategies in learning vocabulary of non-English majors in HUTECH were obviously discovered in full details.

The present study employed convenience sampling due to the time constraint and the researcher could not involve all of the non-English majors studying at HUTECH. Because the sample is difficult to choose, convenience sampling which is based on the availability of a group of individual conveniently taking part in the study is suggested in the case (Fraenkel & Wallen, 2008). According to Comrey and Lee (1992), the sample size with distinct scale as 100 = poor, 200 = fair, 300 = good, 500 = very good, 1000 and over = excellent (as cited in Matsunaga, 2010), the number of participants in the current study could be considered to be good sampling scale. Furthermore, non-English majors sophomore were selected as the sample for the current investigation. It is believed that after one year studying at tertiary level, sophomores have experienced certain English learning strategies applied by themselves or by their classmates; particularly vocabulary learning strategies and may plan or prepare to plan some for themselves. Thus, the sophomores can be considered to be a suitable sample for the study. After piloting, in the first semester, questionnaire 1 with 350 copies questionnaires were delivered to students from five different classes: Business Administration, Marketing, Pharmacy, and Mechanical and Electronic Engineering. The time allowance for the students to fill in the questionnaire was 20 minutes. In the second semester, questionnaire 2 with 350

copies were delivered to students from the same five classes as in the first semester, with 20 minutes to fill in the questionnaire.

On the dimension of quantitative paradigm, the study applied close-ended five-option Likert-scale questionnaire to query students' perception and students' use of vocabulary learning strategies. The quantitative data collected from the questionnaire were processed by the regression analysis with principal component analysis to extract the main strategies to understand students' awareness, students' perception, and students' use in term of frequency towards each of vocabulary learning strategies. There were two sets of questionnaires based on four groups of Schmitt (1997)'s vocabulary learning strategies (MEM, COG, META, SOC). Questionnaire 1 delivered at the beginning of first semester to determine students' awareness and the importance of vocabulary learning strategies. After finishing questionnaire 1, students were encouraged to apply strategies in questionnaire 1 in learning vocabulary. At the end of the first semester, students participated in questionnaire 2 to recognize their frequency and preference towards the vocabulary learning strategies offered in questionnaire 1. Among 58 vocabulary learning strategies of Schmitt (1997), the thesis researcher chose 19 strategies which were surveyed regularly in previous studies and close to students' vocabulary learning activities recently (Stoffer, 1995; Gu & Johnson, 1996; Schmitt, 1997; Kudo, 1999; Lin, 2001). Besides, 5 strategies were added more in the questionnaires after the thesis researcher had a conversation with students about how students have learned vocabulary recently. They are "connect new word with previous words" (MEM), "image position of letters in new word" (MEM), "learn word meaning with picture" (COG), "use applications in smart phone" (COG), "search information in English websites" (META).

On the other hand, to collect the qualitative data, 10 sophomores included 5 ones from Business Administration major, 2 ones from Marketing major, 2 ones from Pharmacy, and one from Mechanical and Electronic Engineering participated in face-to-face individual interview. After investigating questionnaire 2, interview was implemented with one by one sophomores for qualitative research with both writing and recording, from five to thirteen minutes for each one. Furthermore, the sophomores participated in interview were different from students of main survey. On the dimension of qualitative paradigm, structured individual interview was applied in the current thesis to carry out students' preference towards vocabulary learning strategies. Because students could provide their own opinions, feelings, experience and the researcher could control the questions for students (Crewell, 2014). The interview protocol comprised 5 open-ended questions to explore students' use and preference towards vocabulary learning strategies. Furthermore, the interview protocol was piloted with 2 random students to ensure students' understanding about five questions before the individual face-to-face interviews were conducted with 10 students to collect the qualitative data.

Cronbach's alpha is a reliability coefficient that indicates how well the items are positively correlated one another. George and Mallery (2003) stated that if the Cronbach's alpha value is lower than 0.700, the correlation statistics of item-total is processed to eliminate the items which make the result unacceptable. The process is kept running until the valuable of Cronbach alpha is acceptable. On the other hand, if the Cronbach's alpha value is higher than 0.900, the correlation statistics of item-total is run to carry out the most correlative item with others. Furthermore, Wang, Batt, Kessler, Neff, Iyer, Cooper and Kempton (2017) consider item-total correlation statistics as the contribution of each item to instrument consistency. Kumar (2015) confirms item-total correlation should be reckoned to decrease bias in the investigation significantly. In addition, Field (2009) demonstrates if any item' values are less

than 0.3 in correlation, they would be eliminated; in contrast, those ones are acceptable for further steps.

Results

Research Question 1: How do non-English major students in HUTECH perceive vocabulary learning strategies in terms of students' awareness and the level of importance of the strategies?

a. Students' Awareness of Vocabulary Learning Strategies

First of all, students' awareness of four groups of vocabulary learning strategies were described with mean values. In cognitive group, students believed that "use applications in smart phone" was aware fully (mean = 4.51). Otherwise, "put English labels on physical objects" was aware slightly (mean = 2.94). Among strategies of metacognitive group, "search information in English websites" was well-aware (mean = 4.04) while "read English news (paper/online)" was aware with lower level than others (mean = 3.44). In the group of social strategies, "ask teacher for a sentence including new word" and "participate in group activities" were well-aware with the values of mean such as 4.09 and 4.04. Finally, all strategies in memory group were at the level of moderate awareness; for instance, "connect new word with previous words" (mean = 3.68) and "write a sentence with new word" (mean = 3.47).

In summary, students were aware of all vocabulary learning strategies. Additionally, the strategies that received the highest level of awareness were "use applications in smart phone" (COG), "keep a vocabulary notebook with different topics" (COG), and "picture presents word meaning" (COG).

b. Students' Perception in Terms of the Level of Importance of VLS

The effect of each item in each group of vocabulary learning strategies presented different values. The values of mean in the descriptive statistics approach prove that students perceived "repeat words orally" as the most important strategy in the cognitive group (COG), "read English news (paper/online)" as an important strategy in the metacognitive group (MET), "ask teacher for synonym of new word" as the most essential strategy in the social group (SOC) and "say new word aloud when studying" as a very important strategy in the memory group (MEM). Otherwise, while cognitive group (COG), social group (SOC), and memory group (MEM) were very important, metacognitive group (META) was at the level of importance. In addition, within four groups of VLS, students perceived memory group (MEM) that was more important group than three others with 4.30 of the average mean value (very important). The important level of the items within four groups of VLS was demonstrated in Table 1 as follows:

Table 1: The Important Level of the Strategies

	Mean
04 - COG - Put English labels on physical objects	3.60
05 - COG - Picture presents word meaning	4.17
08 - COG - Use flash cards	3.97
09 - COG - Keep a vocabulary notebook following A, B, C,… letter	4.12
10 - COG - Keep a vocabulary notebook with different topics	4.10
11 - COG - Repeat words orally	4.23
14 - COG - Take notes in class	4.00
24 - COG - Use applications in smart phone	4.03
Average Mean	**4.03**
01 - MET - Search information in English websites	3.65
07 - MET - Watch English news (television/radio)	3.71
15 - MET - Watch English television programs	3.73
17 - MET - Read English news (paper/online)	3.92
20 - MET - Watch English movies	3.26
Average Mean	**3.65**
02 - SOC - Ask classmates for meaning	4.01
03 - SOC - Participate in group activities	4.01
06 - SOC - Ask teacher for an L1 translation	4.04
16 - SOC - Participate in English clubs	4.14
18 - SOC - Ask teacher for synonym of new word	4.20
19 - SOC - Ask teacher for a sentence including the new word	4.15
Average Mean	**4.09**
12 - MEM - Connect the new word with previous words	4.34
13 - MEM - Say new word aloud when studying	4.44
21 - MEM - Write a sentence with new word	4.16
22 - MEM - Image position of letters in the word	4.30
23 - MEM - Learn a sentence that has new word	4.28
Average Mean	**4.30**

Research Question 2: How Do Non-English Major Students in HUTECH Use Vocabulary Learning Strategies in Terms of Frequency and Preference?

a. Students' Use of Vocabulary Learning Strategies in Terms of Frequency

The effect of each item in each group of vocabulary learning strategy presents different values. In the group of cognition strategies, the frequent levels of the items are demonstrated in figure and tables as follows. In figure 2, there was a general view of frequent use of strategies in cognitive group. As can be seen, the level of frequency in cognitive group reached from "moderately frequent" to "very frequent". Most of all, 8 strategies were highest at "frequent" level of use. Regarding table 4.15, the majority of students used "keep a vocabulary notebook with different topics" strategy (mean = 4.1657). On the other hand, "use flash cards" strategy was not used frequently than others (mean = 4.1200).

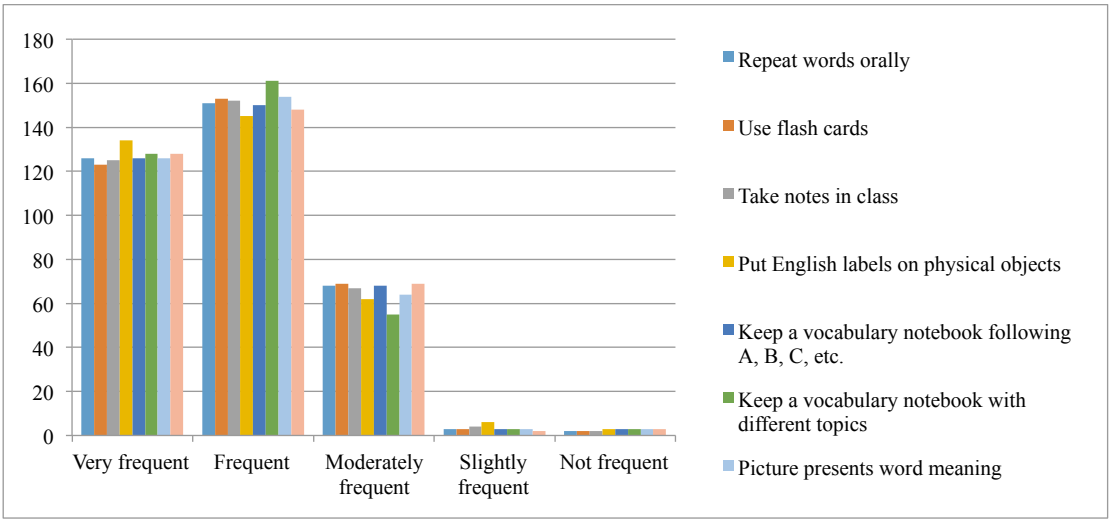

Figure 2: The Frequent Use of Cognitive Strategies

Figure 3 showed that most of students used "search for information in English websites" strategy frequently. Furthermore, among 5 strategies of metacognitive group, a significant number of students applied the strategy "watch English movies" in the group of very frequent level.

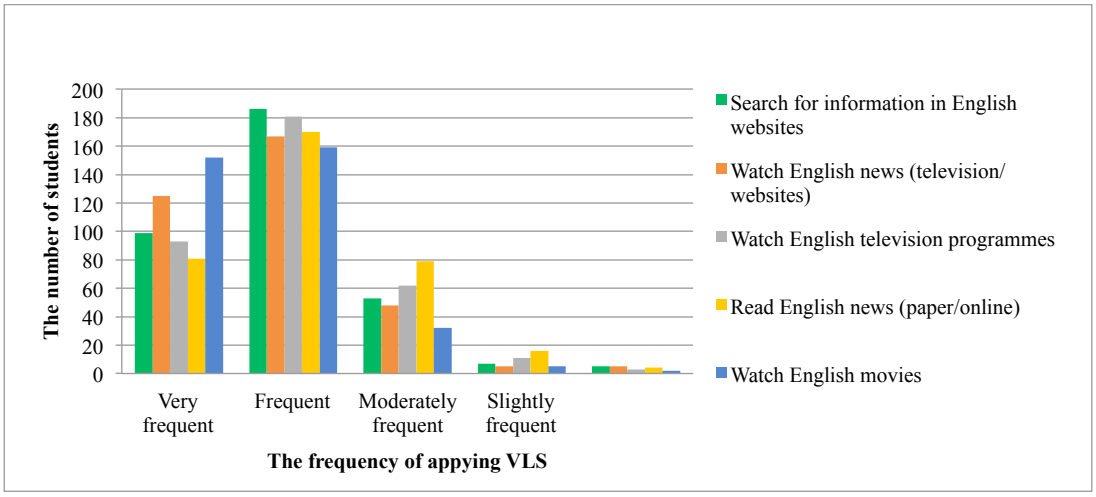

Figure 3: The Frequent Use of Metacognitive Strategies

Regarding metacognitive group (MET), the frequent level of use of 5 items was also frequent. The number of students used "watch English movies" strategy was the most (mean = 4.2971). Otherwise, "read English news (paper/online)" strategy was not used frequently than others (mean = 3.8800).

Different from cognitive group and metacognitive group, the majority of students used 6 strategies of social communication group very frequently. In the level of very frequent use, "ask teacher for an L1 translation" strategy was used in the most. Then, "ask classmate for meaning" strategy, "participate in group activities" strategy, and "ask teacher for a sentence including the new word" strategy were also applied very frequently.

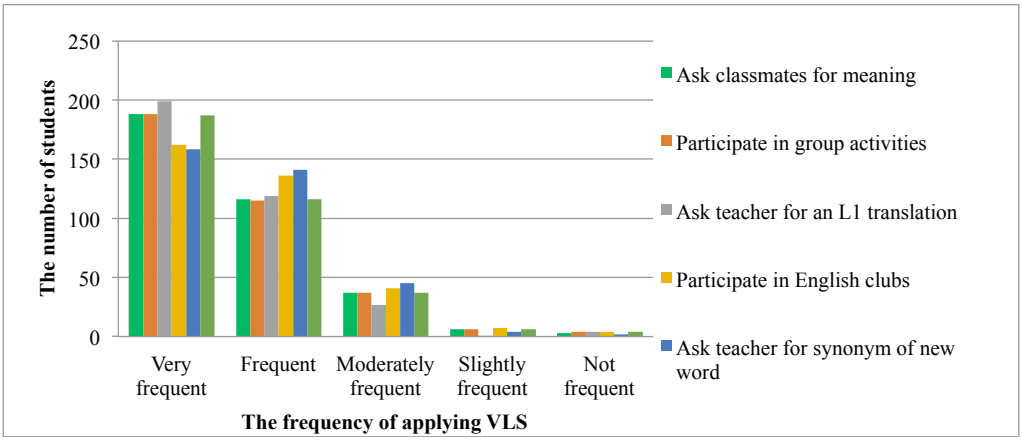

Figure 4: The Frequent Use of Social Strategies

In social communication group (SOC), the frequent level of use of 6 items was very frequent. "Ask teacher for an L1 translation" strategy was used mostly (mean = 4.4514). Otherwise, "participate in English clubs" strategy was not used as much as others (mean = 4.2714).

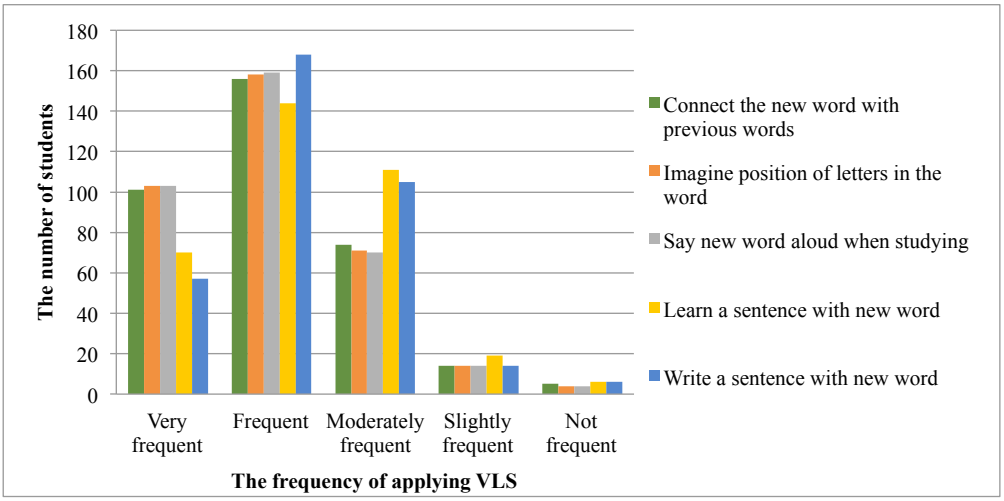

Figure 5: The Frequent Use of Memory Strategies

As shown in Figure 5, a significant number of students utilized memory strategies frequently. In addition, the number of students used "write a sentence with new word" strategy was higher than the others. The number of students used "write a sentence with new word" strategy was the most (mean = 3.9800). In contrast, "learn a sentence with new word" strategy was not used frequently than others (mean = 3.7229).

b. Students' Use of Vocabulary Learning Strategies in Terms of Preference

Regarding favorite vocabulary learning strategies, ten students preferred social strategies for learning new words. It absolutely supported students' use in terms of frequency that was presented above. It also meant that students' preferable vocabulary learning strategies were used frequently. Specifically, all ten students prefer social strategies as "ask teacher for synonym of new word", and "ask classmates for meaning". For instance, "I usually ask teacher synonyms of new word for guessing its meaning" (Student 3, 4, 5, 7, 9 said) or "ask classmate next to me or those ones in a group for new word's meaning" (Student 2, 4, 7 said). Next, cognitive strategies that reached second choice were "use applications in smart phone", and "repeat words orally". For example, "I spend a lot of time in smart phone, I also learn

vocabulary in English applications in smart phone" (Student 1, 2, 3, 5, 8, 9, 10 said); "I usually repeat orally when I learn new words" (Student 1, 2, 9, 10 said). Finally, memory strategies were not preferred as others. Because only Student 3 preferred a strategy of memory group as "say new word alound when studying" for learning vocabulary. Student 3 said "I often learn vocabulary at home where I can say new words alound in my room for memory".

Research Question 3: Is There Any Correlation Between Students' Perception in Terms of the Level of Importance of VLS and Students' Use in Terms of Frequency?

First of all, both the students' perception in terms of the level of the importance of VLS and students' use in terms of frequency were examined by questionnaire with five-option Likert scale. Therefore, the correlation between students' perception in terms of the level of the importance of VLS and students' use in terms of frequency was recognized with each group of vocabulary learning strategies (COG, MET, SOC, MEM). Furthermore, the correlation of each group was determined by the value of significance firstly, and then the value of of Pearson. According to Cohen (1988), if the value of significance is smaller than 0.05, there is a correlation between students' perception and students' use in a participate group. If the value of significance is larger than 0.05, there is not correlation between students' perception and students' use. After existing the correlation between students' perception and students' use, the value of Pear (r) will be considered the level of the correlation between students' perception and students' use. Strong correlation has value from $0.70 < r < 1.00$; medium correlation is from $0.40 < r < 0.70$; and weak correlation has value from $0.10 < r < 0.40$.

Regarding the group of cognitive strategies, the value of significance showed that students' perception correlated with students' use (sig < 0.05). Moreover, students' perception had strong correlation with students' use ($0.70 <$ Pearson's $r < 1$).

Table 2: The Correlation Between Students' Perception and Students' Use of Cognitive Strategies

		COG - Students' perception	COG - Students' use
COG - Students' perception	Pearson Correlation	1	,882*
	Sig. (2-tailed)		,000
COG - Students' use	Pearson Correlation	,882*	1
	Sig. (2-tailed)	,000	

* Correlation is significant at the 0.01 level (2-tailed).

On the other hand, in the metacognitive group, there was not significant correlation between students' perception and students' use because the value of significance was 0.230. Therefore, the value of Pearson had not meaning even its equal 0.961.

Table 3: The Correlation Between Students' Perception and Students' Use of Metacognitive Strategies

		MET - Students' perception	MET - Students' use
MET - Students' perception	Pearson Correlation	1	,961*
	Sig. (2-tailed)		,230
MET - Students' use	Pearson Correlation	,961*	1
	Sig. (2-tailed)	,230	

* Correlation is significant at the 0.05 level (2-tailed).

Similar to metacognitive group, there was no correlation between students' perception and students' use in social group of vocabulary learning strategies (sig = 0.120).

Table 4: The Correlation Between Students' Perception and Students' Use of Social Strategies

		SOC - Students' perception	SOC - Students' use
SOC - Students' perception	Pearson Correlation	1	,753*
	Sig. (2-tailed)		,012
SOC - Students' use	Pearson Correlation	,753*	1
	Sig. (2-tailed)	,012	

* Correlation is significant at the 0.05 level (2-tailed).

Finally, there was no correlation between students' perception and students' use in memory group of vocabulary learning strategies (sig = 0.853).

Table 5: The Correlation Between Students' Perception and Students' Use of Memory Strategies

		MEM - Students' perception	MEM - Students' use
MEM - Students' perception	Pearson Correlation	1	,753*
	Sig. (2-tailed)		,853
MEM - Students' use	Pearson Correlation	,753*	1
	Sig. (2-tailed)	,853	

* Correlation is significant at the 0.05 level (2-tailed).

In summary, students' perception in terms of the level of importance of VLS and students' use in terms of frequency had a strong correlation in group of cognitive strategies. It meant not only students perceived that cognitive strategies were very important but they also used cognitive strategies more frequently. Conversely, students perceived that memory strategies were the most important while they did not use memory strategies frequently in learning vocabulary. Finally, the findings showed that there was a gap between students' perception in terms of the important role of VLS and students' use in terms of frequency with metacognitive strategies group (MET), social strategies group (SOC), and memory strategies group (MEM).

Discussions

Vocabulary learning strategies were a significant issue from 1990 and many researches were published by famous researchers. However, as time goes by, vocabulary learning strategies of frequent use in the current study showed that students had a tendency to apply technology to learn vocabualry as "use applications in smart phone" (COG) or "watch English movies" (MET). Definitely, "use applications in smart phone" (COG) and "watch English movies" (MET) were prefer mostly among vocabulary learning strategies. It meant that in the development of high technology, as a trend, strategies related to products of hi-tech would be used more than others. Because those strategies are interesting and convenient to help students learning vocabulary outside of classroom effectively.

On the other hand, the correlations between students' perception in terms of students' opinion of the level of importance of VLS and students' use in terms of frequency were not fully congruent. Students' perception correlated with students' use in only cognitive group of VLS. However, there were not a strong correlation between students' perception and students' use

in metacognitive group, social group, and memory group of VLS. It meant that students realized the importance of VLS but they did not used those strategies frequently.

The results of perceptions towards vocabulary learning strategies in this study were similar to the research of Asyiah (2017). The strategies were well aware and students agreed that vocabulary learning strategies were important in vocabulary learning process. There was also a comparison between Schmitt's survey (1997) and the current investigation.

Table 6: The Most Used Strategies in Four Groups
Between Schmitt's Survey (1997) and the Current Investigation

Strategy Groups	Schmitt's survey (1997)	The current investigation
Metacognitive strategies	(none)	Watch English movies
Cognitive strategies	Verbal repetition	Keep a vocabulary notebook with different topics
Social strategies	Ask classmates for meaning	Ask teacher for an L1 translation
Memory strategies	Say new word aloud	Write a sentence with new word

A significant difference between Schmitt's research and the current study. Schmitt's research had not the most used strategy in metacognitive group. There were only the most used strategies in other groups. Table 6 illustrated that three significant strategies in Schmitt's survey were "verbal repetition" strategy (COG), "ask classmates for meaning" strategy (SOC), and "say new word aloud" strategy (MEM). In contrast, there were the most used strategies in four groups. Moreover, four significant strategies in the current study were "watch English movies" (MET), "keep a vocabulary notebook with different topics" (COG), "ask teacher for an L1 translation" (SOC), and "write a sentence with new word" (MEM). Although there were differences between Schmitt's research and the current study, vocabulary learning strategies (COG, MET, SOC, MEM) surveyed in the current study were used frequently by non-English major sophomores in HUTECH.

Conclusion

The investigation was conducted to recognize vocabulary learning strategies of non-English majors. Firstly, the results of the study proved that students were well aware of vocabulary learning strategies. Hence, students should consider suitable vocabulary learning strategies to enhance vocabulary knowledge and use them frequently. Secondly, students tend to apply techology in learning vocabulary as "use applications in smart phone" strategy. It means that English teachers should consider teaching approaches related to students' trend as well as give students advices about valuable applications in smart phone. Moreover, students usually combine or use multi-strategies in learning vocabulary such as "look up dictionary", "go to travel", "watch English videos in youtube chanel", "learn new word from lyric of English song", "learn new word from subtitle of English movies", "learn new word from English pages on facebook application". Thirdly, regarding congruent correlation between students' perception and students' use, students should concerntrate on strategies applied frequently for learning vocabualry because all vocabulary learning strategies were considered very important.

On the other hand, the limitation of the study is persisted obviously. Firstly, due to practical constraints, this study does not provide a comprehensive review of lexical issues. Hence, it

mainly concentrates on students' perceptions and students' use of vocabulary learning strategies within memory strategies (MEM), cognitive strategies (COG), metacognitive strategies (MET), and social strategies (SOC). Secondly, the target sample in this investigation is focused on sophomores of non-English majors at HUTECH and students of other levels are not involved in the study.

References

Cohen, J. (1988). Statistical power analysis for the behavioral sciences (2nd Ed.). Hillsdate, NJ: Lawrence Erlbaum.

Comrey, A. L., & Lee, H. B. (1992). *A first course in factor analysis*. Hillsdale, NJ: Lawrence Eribaum Associate.

Dinh, T. T. K. (2011). *An investigation into EFL student autonomy in enriching vocabulary at Ho Chi Minh university of industry*. Unpublished M.A. Thesis, University of Social Sciences and Humanities of Ho Chi Minh City, Vietnam.

EF English Proficiency Index. (2024). Retrieved from https://www.ef.com.vn/epi/

Fraenkel, J. & Wallen, N. (2008). *How to design and evaluate research in education*. New York: McGraw-Hill.

Gu, Y., & Johnson, R. K. (1996). *VLS and language learning outcomes*. University of Hong Kong.

Hatch, E., & Brown, C. (1995). *Vocabulary, semantics, and language education*. New York: Cambridge University Press.

Hirsh, D., & Nation, I. S. P. (1992). What vocabulary size is needed to read unsimplified texts for pleasure? *Reading in a Foreign Language*, *8*, 689-696.

Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: A paradigm whose time has come. *Educational Researcher, 33*(7), 239-271. Retrieved from http://dx.doi.org/10.3102/0013189X033007014

Kudo, Y. (1999). *L2 vocabulary learning strategies. Second language teaching & curriculum center*. USA: University of Hawaii. Retrieved from http://www.lll.hawaii.edu/nflrc/networks/nw14/

Le, N. (2024). Từng bước đưa tiếng Anh thành ngôn ngữ thứ hai trong trường học. *Vnexpress*. https://vnexpress.net/tung-buoc-dua-tieng-anh-thanh-ngon-ngu-thu-hai-trong-truong-hoc-4781538.html

Le, N. H. G. (2009). *The effects of semantic mapping in vocabulary teaching*. Unpublished M.A. Thesis, University of Social Sciences and Humanities of Ho Chi Minh City, Vietnam.

Le, T. B. T. (2010). *Suggested vocabulary learning strategies for the eleventh graders at Hoang Thai Hieu high school, Ninh Minh town, Vinh Long province to enrich their vocabulary knowledge*. Unpublished M.A. Thesis, Ho Chi Minh City Open University, Vietnam.

Lewis, M. (1993). *The lexical approach: The state of ELT and the way forward*. Hove, England: Language Teaching Publications.

Lin, L. (2001). *Taiwanese children's EFL vocabulary learning strategies*. MA thesis. Hsinchu, Taiwan: National Chinhua University.

Matsunaga, M. (2010). How to factor-analyze your data right: Do's, don'ts, and how-to's. *International l Journal of Psychological Research, 3*(1), 98-111.

McKim, C. A. (2017). The value of mixed methods research: A mixed methods study. *Journal of Mixed Methods Research*, *11*, 202-222. https://doi.org/10.1177/1558689815607096

Mumary, A. (2017). Challenges in teaching English faced by English teachers at MTsN Taliwang, Indonesia. *LEARNING, 2*(2).

Nation, I. S. P. (1990). *Teaching and learning vocabulary*. Boston, Mass: Heinle & Heinle Publishers.

Nation, I. S. P. (2001). *Learning vocabulary in another language*. Cambridge: Cambridge University Press.

Nation, I. S. P. (2009). *Teaching ESL/EFL reading and writing*. New York: Routledge.

Nguyen, B. N. (2013). *The use of lexical approach in enhancing learners' oral communication performance at Nguyen Hue university*. Unpublished M.A. Thesis, Ho Chi Minh City Open University, Vietnam.

Nguyen, T. A. D. (2012). *Using games to improve learning vocabulary for non-majored English students at Bac Lieu University*. Unpublished M.A. Thesis, Ho Chi Minh City Open University, Vietnam.

Oxford, L. R. (1990). *Language learning strategies: What every teacher should know*. Heinle & Heinle Publishers.

Pavicic, T. V. (2008). *Vocabulary learning strategies and foreign language acquisition.* Clevedon: Multilingual Matters.

Schmitt, N. (1997). *Vocabulary learning strategies*. Cambridge, UK: Cambridge University Press.

Schmitt, N. (2000). *Vocabulary learning strategies*. Cambridge, UK: Cambridge University Press.

Schmitt, N. (2008). Instructed second language vocabulary learning. *Language Teaching Research,12*(3), 329-363. Retrieved from doi:10.1017/S0261444815000075

Stoffer, J. (1995). University foreign language students' choice of vocabulary learning strategies as a related to individual difference variables. *Journal Of Education Of The University Of Alabama, 4,* 122-153.

Tran, V. D. (2008). *Effective strategies for teaching and learning vocabulary to improve reading comprehension in the TOEIC test*. Unpublished M.A. Thesis, University of Social Sciences and Humanities of Ho Chi Minh City, Vietnam.

Tseng, W., Dorneyei, Z. & Schmitt, N. (2006). A new approach to accessing strategic learning: The case of self-regulation in vocabulary acquisition. *Applied Linguistics*, *27* (1), 78-102. Retrieved from doi:10.1093/applin/ami046

Contact email: doanhuyentran@gmail.com