Vocabulary Learning Strategy and Vietnamese University Students' Learning Experience in English as Medium of Instruction Classrooms

Le Thi Tuyet Hanh
Dr., Department of Foreign Languages, Vinh University, Vietnam, *hanhltt@vinhuni.edu.vn*

This study aimed to examine the relationship between Vietnamese university students' learning experience and their vocabulary learning strategy use frequency and perceived usefulness in English as medium of instruction (EMI) classes. The research involved 152 expert EMI students and 183 novice EMI students. A methodological triangulation was used to collect the data, included Schmitt's (1997) VLS questionnaire, students' diaries and focus group interviews. A significant difference was found between novice and expert EMI students in their VLS use frequency, but no significant distinction was found between these two groups of EMI students in their VLS perceived usefulness. More specifically, the results indicated that novice EMI students used VLS more frequently than their seniors, but the expert EMI students perceived VLS usefulness as much as their juniors. Based on the findings, some pedagogical implications are put forwards in order to improve the teaching and learning of vocabulary for EMI students in Vietnam.

Keywords: English as medium of instruction, vocabulary learning strategies, EMI university students, VLS use frequency, VLS perceived usefulness

INTRODUCTION

An enough mastery of vocabulary size for English communication is a requirement for any EFL learners, including English as medium of instruction (hereafter EMI) - related students who are studying their majors through English language. These students must not only achieve a certain level of proficiency but also a specific type of English (Le Cao Tinh, 2018) to not communicate but also join successfully in the international workforce (Chau & Truong, 2019). However, according to Phan Thi Quynh Nhu (2019), over a half of Vietnamese graduate students in the related fields could not reach to the average score (5 points on the ten-scale marking) and they were "unable to communicate in English" (p.3). One of the main reasons for this limitation is the lack of ESP vocabulary. This entails many implications, of which the need for ESP vocabulary widening is crucial. Moreover, many researchers indicated that academic achievement depends largely on learners' vocabulary knowledge for different skills (Grabe, 1988; Nation, 1990; Oxford, 2017) and vocabulary learning strategies (hereafter VLS) "can

facilitate the gaining and accessing vocabulary knowledge for use in all language skill areas" (Oxford, 2017, p.255). In addition, this factor has been considered by many researchers (Brown, 2000; Dorney and Skehan, 2003; Gas and Selinker, 2008) as potential to predict EFL learners' learning success. This study tried to investigate the relationship between Vietnamese EMI students' VLS use and perception and their learning experience when learning vocabulary. It also aims to see which VLS types are perceived as useful for Vietnamese students for their development of lexical resources. From the findings, the study attempted to suggest some pedagogical solutions for an effective EMI teaching and learning in Vietnam tertiary education and for similar contexts in the field, as the understanding of individual discrepancies is believed to help L2 teachers improve the effectiveness of their teaching (Takac, 2008).

REVIEW OF LITERATURE

Vocabulary learning strategies

The definitions of VLS were generated by a number of researchers (Cameron, 2001; Catalan, 2003; Nation, 2001; Oxford, 2017), but the current study still wants to use the definition from Le Thi Tuyet Hanh's (2018) study, which was adapted from Schmitt's (1997) research. In this theoretical framework, "*vocabulary learning strategy is understood as conscious actions or/ and techniques learners take to find, memorize new word knowledge or practice using new words*" (Le Thi Tuyet Hanh, 2018, p.10).

Taxonomy of vocabulary learning strategies

A number of studies attempted to develop a taxonomy of vocabulary learning strategies so far (Gu & Johnson, 1996; Luu Trong Tuan, 2011; Schmitt, 1997; Stoffer, 1995; Takac, 2008; Tseng et al., 2006; William, 1985; Wu, Lowyck, Sercu, & Elen, 2013). Those inventories were usually part of a research related EFL learners' strategy use. The current study used Schmitt's (1997) taxonomy for many reasons, as mentioned by Catalan (2003): (1) the convenience of data collection procedure, (2) the reliability of theoretical framework of learning strategy and memory; (3) the suitability of different educational background participants and target languages; and (4) the popular use in related studies, which allows later comparisons. Moreover, this outstanding questionnaire was built from multiple sources: from books and text books, students' reports and teachers' experiences. Moreover, Japanese people were the participants in that study, which closely relates to Vietnamese culture.

Vocabulary learning strategy and students' learning experience

Learning experience is defined in this study as the exposure time students have had to learn English. The relationship of learning strategy and learning experience were of interests of many researchers (Celik and Toptas, 2010; Fan, 2003; Lip, 2009; Oxfords & Nyiko, 1989; Wharton, 2000; Wu et al., 2013), who all found that there was little dependence between two variables. However, a modest number of studies which were found in the review of the literature have been carried out concerning VLS and learning experience worldwide. These studies (Bongkasean & Intarapraset, 2014; Stoffer, 1995; Siriwan, 2007) found that the relationship was significant. No research has been

conducted so far in Vietnamese tertiary context. As Schmitt (1997) mentioned that "learners from different culture groups sometimes have quite different opinions about the usefulness of various vocabulary learning strategies" (p.3). This is the first investigation on finding out if a significant difference exists among Vietnamese university EMI learners' VLS use and perceived usefulness and their learning experience.

METHOD

Research design

It is found pertinent to employ the mixed methods design in this research as data from only a VLS questionnaire might not adequate enough to determine the dependability of the respondents' actual strategy use in their vocabulary learning (Hsiao and Oxford, 2002). On the other hand, Pawlak (2008, p.26) indicated "…qualitative analysis alone is simply too impressionistic and subjective when it comes to exploring such issues as the strength of relationship of variables, the link between a specific ID factor and attainment, or the value of training programs". Accordingly, to ensure the accuracy and validity of this research finding, both qualitative and quantitative data were combined to deepen the understanding of the relationship between students' VLS use and their learning experience.

Participants

The study involved 335 young adult Vietnamese EFL learners, who were non-English majored students in their first and third year at university. They were taking part in advanced classes where English is used as medium of instruction. These participants were randomly chosen when they learned English at university. For the purpose of the study, these participants were divided into two groups: 183 first year students, labeled as "novice EMI students" and 152 third year students, as "expert EMI students" in this paper.

Study instruments

VLS questionnaire

As mentioned previously, the VLS questionnaire used in this study was adapted from Schmitt's (1997) in which five VLS groups are categorized: Metacognitive (hereafter MET), Social (hereafter SOC 1 for VLS used to discover new word meaning and SOC 2 for VLS used to memorize new words), Determination (hereafter DET), Memory (hereafter MEM) and Cognitive (hereafter COG) strategies. The questionnaire consists of fifty-eight strategies and the 59th row was added with the aim to giving students more space to write VL strategies which were not given in the list, as Schmitt (1997) emphasized on the dynamic nature of the questionnaire, which should not be viewed as exhaustive. Furthermore, some strategies were reworded for an easier understanding. For example, the word "Vietnamese" were used to replace the word "L1" in all related strategies. All others were kept intact because of its validity as pointed out in the literature.

The VLS questionnaire was divided into two parts. The first one elicits information about the learners' personal information, included their names and Facebook accounts; their exposure time of English learning, their majors and classes. The second part was designed following five-point Likert scale, ranged from always (5) to never (1). Students were required to tick the appropriate scale with their actual practice for each statement in 58 statements in total.

Students' diaries

The data collection stage involved thirty-five participants, including 20 first-year students and 15 third-year students. Diaries, which are a form of retrospective self-report, are becoming increasingly popular tools for gathering information about teaching and learning (Bailey & Ochsner, 1983; Oxford et al., 1996; Oxford, 2017), were intentionally chosen as a research tool in this VLS-related study. This tool was designed by the researcher. In fact, diary is usually open-ended in nature; as a result instructions were given at the first page of the diary notebook in order to reduce the shortcoming. In addition, the researcher attempted to focus diarists on particular aspects of words by giving them a diary notebook in which she illustrated what was required in students' diary writing through examples. The explanations were also given at the time when the diaries were distributed to clarify all the ambiguities. The second page contained a chart divided in seven sections in which participants could write what they did every day to learn vocabulary. However, for many students, the space was too small for them to express their creativeness in using strategy to learn vocabulary. Accordingly, through Facebook group, the researcher encouraged participants to freely show their creativeness in the next pages. Any vague information provided in the student diaries was elicited through the conversations on Facebook group.

Focus Group interview

Focus group interview was identified by Dornyei (2007, p.144) as a tool which "involves a group format whereby an interviewer records the responses of a small group (usually 6-12 members)". Accordingly, to gather data from novice and expert EMI student groups, this type was used through interview groups based on "Facebook group" application. Dornyei (2007, p.144) also declared that fewer than six participants in each group would limit the "potential of the 'collective wisdom' whereas too large size makes it difficult for everyone to participate", as a result the number of participants in each group of this study varied from 12 novice EMI students to 13 expert EMI students.

Interviews can be conducted face-to-face or through different Internet-based tools, included telephone, email, or even a chat room (Nunan & Bailey, 2009). Accordingly, the interviews in this study were decided to be administered through Facebook messenger for its conveniences. However, to avoid the mutual influences from each other's responses, students were firstly sent the interview protocol in which all the interview questions were included. During the interviews, typing is the main way to convey the answers. When the ambiguity was found in any answer, questions were typed and sent back individually to that respondent. This individual messaging also aimed at avoiding the confusion between students' responses as well as helping students not

being affected by others' responses in the group. Moreover, in order to maintain natural and comfortable environment between interviewer-interviewee interactions, casual language was used in the interviews. Both Vietnamese and English languages were employed to have a clear mutual understanding. Besides, as the researcher did not use the video-call application in the interviews, certain small talk was made to assure the interviewee was speaking to the right person the study selected. Another remind relating to students' Facebook accounts, which usually did not match with their real names, accordingly keeping a list of students' real names connecting to Facebook names whenever she conducted the interviews was necessary. The researcher kindly reminded students not to leave interview group until the research was completed. This reminder did not disturb the students' life as they could mute the conversations until they got back online. After the interviews, phone calls were made when it was necessary to clarify the final findings.

Data analysis procedure

Data cleaning had been performed before the quantitative results were statistically analyzed. All the missing data and extreme values were excluded during the data cleaning process. The computer software package, SPSS 2.0, was used for quantitative data analysis and presented in tables. The qualitative data from diaries and interviews were transcribed, themed and interpreted by the researcher herself. Figure 1 below demonstrates the data-analysis procedures.
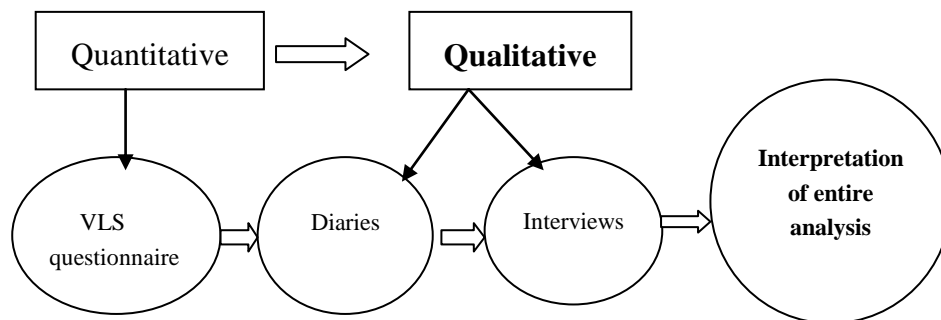

Figure 1
Data analysis framework
This work falls under the design of explanatory mixed methods research. As a result, the VLS survey was used to begin the research. The results from the quantitative data were then used to guide the compilation and interpretation of qualitative data from diaries and interviews. In the next step, the theming, combining, and comparing of both quantitative and qualitative results were performed to deepen the understanding of the differences between novice and expert EMI group in their VLS use frequency.

Research reliability and validity

Creswell and Clark (2007) emphasized that the reliability and validity of a psychometric instrument are essential principles in quantitative analysis since they mean that the

scores derived from it are stable and accurate. The reliability for 58 statements in the VLS questionnaire, calculated using Cronbach's alpha coefficient (Cronbach, 1984), was 0.83. With this score, the questionnaire was proved highly reliable, following George and Mallery's (2002) guidelines. In addition, the data were collected from multiple instruments, such as questionnaires, interviews, and diaries, and then triangulated to strengthen the findings. According to Johnson (1992), triangulation of data collection techniques will help improve the validity and reliability of any research to the point that it reduces the risks of making subjective interpretations from the researcher.

FINDINGS AND DISCUSSION

Data collected from VLS questionnaire, diaries and focus group interviews were analyzed to see if there is any difference between novice and expert EMI students. The data were grouped into 2 categories: use frequency and perceived usefulness.

Use frequency

To find out VLS use frequency of two groups, Schmitt's (1997) questionnaire was distributed to the participants. Quantitative data were collected and analyzed through SPSS software. Table 2 indicates the results from the analysis.

Table 1
Means and Sig of VLS use frequency among EMI students

		N	Mean	Std. Deviation	Sig.
Determination strategies	expert students	152	3.1966	.4982	.000
	novice students	183	3.5046	.4080	
Social strategies 1	expert students	152	3.1618	.7363	.001
	novice students	183	3.5246	.6774	
Social strategies 2	expert students	152	2.9227	.8124	.000
	novice students	183	3.5041	.6365	
Memory strategies	expert students	152	3.0225	.5153	.000
	novice students	183	3.4262	.4437	
Cognitive strategies	expert students	152	3.4108	.6539	.001
	novice students	183	3.7250	.4306	
Metacognitive strategies	expert students	152	3.0526	.5188	.005
	novice students	183	3.2885	.6224	

As can be seen in Table 1, novice EMI students outweigh expert EMI students in the frequency of using VLS groups in their vocabulary learning, suggesting that the more time EMI students spent learning English, the less VLS groups they used. Both novice and expert students rated Cognitive strategies as their most frequent use, with the Means of 3.7 and 3.4 respectively. Besides, Metacognitive strategies had the lowest score among novice students (Mean=3.3), meanwhile social strategies 2, which are used to memorize new words, appeared as their counter partners' least favored (Mean=2.9). The mean scores of the other three groups among less experienced students varies from 3.5, 3.5 to 3.4 for DET, SOC 1, MEM strategies equivalently, meanwhile the mean scores of

3.2; 3.2; 3.0; 3.1 among more experienced students are for DET; SOC 1; MEM; MET respectively.

As a follow-up process to the quantitative findings, data from diaries and focus-group interviews were collected in order to give a deeper sense of what was found from the questionnaire. The numbers of VLS used in students' diaries were grouped into three groups: VLSs to discover new word meaning; VLSs to memorize new word knowledge and VLSs to practice using new words.

Regarding VLS used to discover new word meaning, both diarist groups mentioned bilingual dictionary was the most used, followed by the monolingual one but with different percentages between the less and more experienced, 50% and 80% respectively. This findings is consistent with the quantitative finding, which show that the mean scores of using bilingual and monolingual dictionary were among the highest scores (M=4.20 and 3.85). Analysing part of speech was the third frequent use among the less experienced students, meanwhile this place among the more experienced ones is guessing from textual context.

With respect to memorizing strategies, both groups had the same most frequently used VLS with different percentage. It suggests that expert students focused mainly on certain number of strategies while novice students employed VLS dispersedly.

In terms of practising strategies, both groups showed a low percentage of using this VLS type, under 40%, suggesting that they sometimes practised their new word use, which is in the same vein with the quantitative data. Interestingly, the less experienced learners showed the more practice of using new words than the more experienced ones.

Data from diaries and interviews also indicated that the more experienced students tended to use less VLS but more complicated VLS in their lexical learning. They are likely to use VLS which actually require more cognitive ability.

To find out whether the difference between two groups of EMI students is significant or not, ANOVA was used. Statistically, there is a significant difference between VLS use frequency between two groups of participants, with all the Sig < or = .005 (Table 1); meaning that the less experienced students tend to use VLS more frequently than the more experienced. The qualitative data then supported the quantitative data to the extent that the second year students employed more strategies to learn new words. More specifically, in the diaries novice EMI students reported to use more than two strategies to discover and memorize a new word, meanwhile the third year students mostly used only one strategy. The answers from focus group interview question "Do you think that your vocabulary learning strategies have changed compared to the previous years?" once confirmed the findings from the quantitative data analysis. Only two second-year students said that their VLS had not changed since they started learning English.

To sum up, there is a significant difference between novice and expert EMI participants in this study in their VLS use frequency. Novice EMI students tended to employ more VLS types than their seniors to learning ESP new words.

Perceived usefulness

To have an understanding of how two groups of students perceived about the VLS usefulness, descriptive analysis was used, and then ANOVA was performed to see if any difference was significantly found. The results present in the table below.

Table 2
Means of VLS perceived usefulness among EMI students

		N	Mean	Std. Deviation	Std. Error
Determination strategies	expert students	152	3.4321	.48595	.03942
	novice students	183	3.5343	.45581	.05836
Social strategies 1	expert students	152	3.5145	.66297	.05377
	novice students	183	3.5475	.70323	.09004
Social strategies 2	expert students	152	3.6612	.66063	.05358
	novice students	183	3.5656	.65495	.08386
Memory strategies	expert students	152	3.3638	.49522	.04017
	novice students	183	3.4557	.49313	.06314
Cognitive strategies	expert students	152	3.6243	.63256	.05131
	novice students	183	3.7475	.46462	.05949
Metacognitive strategies	expert students	152	3.2592	.52580	.04265
	novice students	183	3.3148	.65976	.08447

As shown in Table 2, each EMI group had different views about the helpfulness of each VLS type. Novice students voted Cognitive VLS types as the most helpful for their vocabulary learning, while their counter partners considered SOC 2 strategies as the most useful ones, with the mean scores of 3.75 and 3.66 equivalently. The least usefulness belonged to MET strategies according to both participant groups' ratings, with means of 3.25 and 3.31. However, these ratings still lied in the scale of "moderately useful'.

Looking at more details, dictionary consulting was placed at the first place for both groups of participants regarding to its usefulness in discovering a new word meaning, meanwhile checking for Vietnamese cognate seemed not to be appreciated, with the mean score of 2.8. The VL strategies which were statistically considered the most useful among novice students to consolidate the word meanings were "interact with native speakers"; "study the spelling of the word"; "study the sound of the word" with mean scores of 4.24; 4.24; 4.11 respectively, Meanwhile "study the sound of the word"; "keep a vocabulary notebook" and "study the spelling of the word with 4.49; 432 and 4.31 among expert students. Both groups considered studying word spelling and sound helpful for their lexical learning. Surprisingly, novice students seemed to highly appreciate interpersonal learning when rated "interact with native speakers" as the most useful, while expert students preferred personal learning with keeping for themselves vocabulary notebooks. Qualitative data from the focus group interviews indicated that novice students in this research are likely to take part more intensively in English-related activities introduced by the university than their seniors. Besides, Peg Method and Loci

Method appeared for both groups as the least perceived usefulness. The interview data indicated that the participants in this study were not familiar with these VL strategies; accordingly they did not use it in their vocabulary learning.

As quantitatively reported (Table 1 & Table 2), even though there is a significant difference between novice and expert EMI students in VLS use frequency, no significant distinction was found in terms of usefulness perceived between two groups. More specifically, novice students rated VLS types as useful as they used them (Figure 2), by contrast expert students did not use VLS types more frequently than novice ones but still rated those VLS types as useful for their lexical learning (Firgure 3)
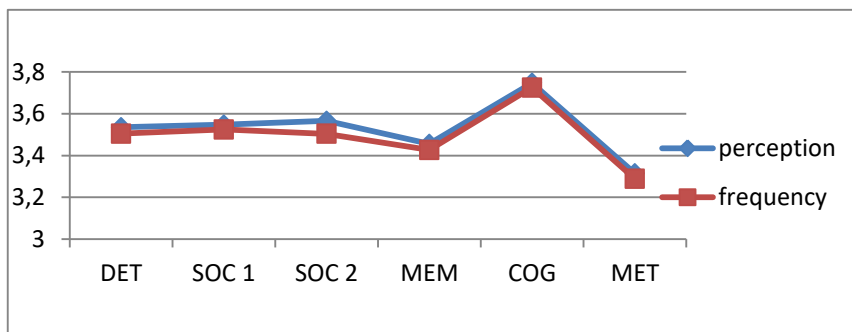

Figure 2
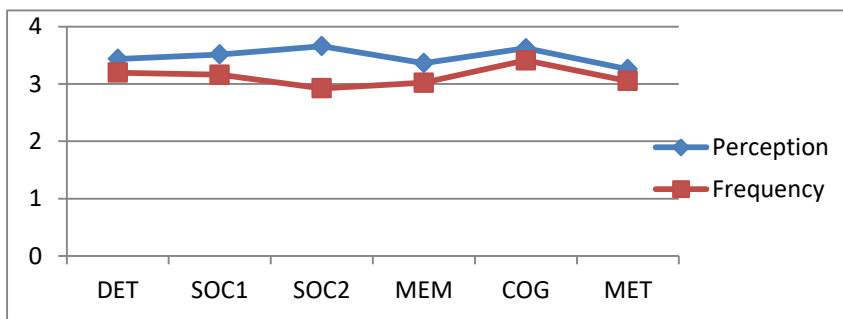VLS use frequency and perception among novice EMI students

Figure 3
VLS use frequency and perception among expert EMI students

The statistics reveal that the means of VLS usage frequency for all groups are lower than the means of VLS usefulness estimation, as indicated in Figure 2 and 3, suggesting that even though EFL students did not use such strategies regularly to learn new vocabulary, they still valued their effectiveness.

Regarding EMI expert students, however, the differences between VLS frequency and VLS perception were proved significant with all the Sig < .005 (the value is considered

significant when p> or = 0.05). Table 3 below presents the results from such ANOVA analysis.

Table 3
ANOVA analysis of the difference between VLS use frequency and perception among expert EMI students

		Sum of Squares	Df	Mean Square	F	Sig.
Determination	Between Groups	20.065	21	.955	7.182	.000
	Within Groups	17.294	130	.133		
Social 1	Between Groups	50.887	17	2.993	12.934	.000
	Within Groups	31.012	134	.231		
Social 2	Between Groups	27.585	13	2.122	4.050	.000
	Within Groups	72.295	138	.524		
Memory	Between Groups	22.648	22	1.029	7.725	.000
	Within Groups	17.192	129	.133		
Cognitive	Between Groups	45.257	23	1.968	13.477	.000
	Within Groups	18.689	128	.146		
Metacognitive	Between Groups	22.658	13	1.743	13.332	.000
	Within Groups	18.041	138	.131		

Responses from the focus interviews showed that participants in both groups did acknowledge the importance of vocabulary and vocabulary learning strategies, but they did not spend much time expanding their lexical resources appropriately, they mostly learned for their required exams. To answer the question related to the most useful VLS in their practice, for instance, most students mentioned the written repetition and putting new words in sentences.

DISCUSSION AND RECOMMENDATION

VLS use frequency

The findings show that there is a significant difference between the less experienced students and the more experienced students in their VLS use frequency, suggesting that the more time EMI students spend learning English, the less VLS they use. This change was mentioned as a consequence of learning environment where expert students reported to be influenced by their teachers and classmates' vocabulary learning strategies. This finding is consistent with Nizegorodcew (as cited in Takac (2008)) who found that "…previous experiences involving in L2 learning and use could influence the choice of particular strategies" (p.8).

The finding also indicates that the novice learners used more VLS involving less cognitive load, meanwhile expert students did not care much about the quantity of VLS used as their juniors; but the quality of VLS did matter. According to Cohen (2011) and Pressley et al., (1982), more proficient students usually use VLS which require "a deeper and more active manipulation of information" (as cited in Takac, 2008, p.59).

The expert EMI students in this study were in their third years at university, compared to their first year counterparts. It might be biased to conclude that all the expert learners are more proficient than the novice learners, but the findings seems to be more or less in line with previously mentioned studies. This finding might be helpful for teachers to predict different EMI students' cognition and habit in using strategy type in learning English and have appropriate suggestions for their students to learn new words more effectively.

However, the results also show some similarities between Vietnamese novice and expert EMI students. First, dictionaries, mostly bilingual dictionaries, are the primary source of new word discovery for both groups of EMI students. This result is consistent with the findings from Nation (2001), Schmitt (1997), and Luu Trong Tuân (2011). As a result, it could be preferable if teachers teach students how to use dictionaries appriorately as well as expose them to the most useful dictionaries.

Second, the pronunciation was likely to draw Vietnamese EMI university participants in this study as they cared of it in multiple ways. This result is in line with Arthenton's (1995) results, which show that sound association is one of the most popular learning strategies used by Asian students. According to Henning's research (as quoted in Takac, 2008), low-proficiency learners depend more on sound than meaning, while high-proficiency learners do the opposite. Despite the fact that almost half of the EMI students in this research were in their third year at university, they continued to remain in the beginning stages of vocabulary learning with formal processing. Correspondingly, teachers should put a greater emphasis on VLS, which steer learners into advanced stages of language learning where semantic processing is needed. Besides, Cohen and Apek (as cited in Takac, 2008, p.59) indicated that "strategies responsible for ineffective learning were weak memorization strategies and underdeveloped strategies of inductive and deductive inferencing". As a result, teachers should incorporate certain innovative and challenging strategies, such as the Loci, Peg, and Keyword, while doing experiments to see if they had any positive effect on their students' lexical learning.

Third, the participants in this study did not use practicing and evaluating strategies in a systematic way. Moreover, VLS used by these learners were normally receptive. This finding supports Arthenton's (1995) observation that Asian students preferred to practice by writing rather than speaking, which commonly favored as learning technique among European students. Moreover, Metacognitive strategies, as Oxford (1990) emphasizes, are of great importance for learners not to strengthen their learning process and progress. It can imply that, on the one hand, to help learners assess, schedule, and coordinate their vocabulary learning more effectively, EMI teachers should provide assessing and evaluating techniques in their vocabulary instructions. On the other hand, considering the lack of vocabulary learning strategies in EFL textbooks, it appears critical for material developers and syllabus designers to address this problem explicitly and comprehensively in order to guide both language teachers and learners in their consistent teaching-learning process.

VLS perceived usefulness

In this study, no significant statistical difference was found between novice and expert EMI learners in their perceptions of VLS usefulness. The result is in vein with the qualitative result from students' diaries and focus-group interviews. It suggests that lower VLS use frequency does not mean lower perception of VLS helpfulness in learning lexical resources. This finding is consistent with Schmitt's (1997) research result. This can be understood that EMI students did acknowledge the value of VLS even though they did not actually use. This can imply that learners might be willing to employ a new strategy, which was proved effective as Keyword method. As a result, teachers should consider introducing new VLS to improve their students' successful learning.

The findings also show that EMI students tended to underestimate the helpfulness of VLS they were not familiar with, including "check for L1 cognate", "Peg Method" and "Loci Method". The lack of awareness of checking Vietnamese cognate strategy is not a surprise because the Vietnamese language and English language are derived from different origins; hence, it is difficult to find an equivalent cognate between the two languages. The other two VLS (Peg Method and Loci Method) were reported as "new comers" in their used VLS list, as a result they did not have enough experience to rate whether those VLS were helpful. These findings were in line with Oxford's (2017) in which she stated that "opportunities to practice" is among factors influencing learners' perception. One of pedagogical implication is that teachers should consider the characteristics of each strategy before introducing to their students.

Regarding expert EMI students, the data showed that they did not use as many VLS as novice students did, but they perceived the VLS usefulness almost the same. This finding confirms the previous finding on VLS use frequency, which showed that expert students focused more on the VLS effectiveness than the number of VLS used. Take Social strategies 2 as an example, they used this type at the least frequency but perceived it as the most helpful. It means that they did not use these strategies not because they found them usefulness but they might not have chance to use them. This is consistent with Celik and Toptas (2010) and Fan (2003), who declared a gap between learners VLS use frequency and usefulness perception. One of the pedagogical implications can be that educators and teachers should create more opportunities for students to practisee such strategies. Nevertheless, as Oxford (2017) reminded, it is not easy to embody this practice in a short time of exposure, accordingly a consistent VLS instruction should be internalize in EMI program for a long run.

With respect to novice EMI students, it was found that there was a positive correlation between their VLS use and perception, suggesting that the more they perceived VLS useful, the more they used such VLS. This finding is in line with previous studies (Chumworatayee & Pitakpong, 2017; Lip, 2009; Wu et al., 2013), which reported that VLS use frequency influenced the VLS perceived usefulness. However, it seems they worked hard to extend their vocabulary size by mostly using strategies, such as written repetition and taking note, which are believed not to improve their lexical resources much (Moir and Nation, 2008). Therefore, a need of personalizing VLS instructions to

fit EMI students' English proficiency and experience is crucial to make their learning more effective. In addition,

CONCLUSION

This study first sought to investigate the use of vocabulary learning strategies, based on Schmitt's (1997) VLS taxonomy, used by EMI university students to discover, memorize and practise new words. The findings helped us to gain an overview of VLS used by Vietnamese novice and expert EMI university students in different stages of vocabulary learning. It was found that EFL university students used a variety of VLS to learn new words and a significant difference was found between novice and expert EMI students in their VLS use frequency. More specifically, novice EMI students tended to use more frequently strategies in their vocabulary learning than expert EMI students. Another aim of the research was to find the potential relationship between VLS perceived usefulness and VLS use frequency. It was found that both group of students perceived the VLS usefulness at the similar level. However, novice EMI students perceived the VLS helpfulness as much as they used them, by contrast expert EMI students were more selected in their VLS use even though they perceived them as useful. The results were both consistent and inconsistent with previous studies, but it was concluded that students with different exposure to English learning time had different VLS use and perception.

This study contributes significantly to previous VLS related studies to the extent that it was the first attempt to determine the relationship between EMI students' learning experience and their VLS use and perception in Vietnam. It also raises educators' awareness about students' behaviors and performances during their vocabulary learning, which is believed to be a good predictor of learning success. Moreover, the study provides some suggestions for teachers' practice in the EMI classrooms. Even though further research is needed to confirm some intriguing issues, i.e increasing the number of participants; adding more data collection tools or even expanding the experience gap between two groups; the findings of the study do expand previous studies and imply many pedagogical insights for English vocabulary teaching and learning.

REFERENCES

Arthenton, L. (1995). *A preliminary investigation into vocabulary memorization strategies used by upper-intermediate students on a university course in England* (Unpublished MED dissertation). Exeter, England: University of Exeter.

Bailey, K., & Ochsner, R. (1983). A methodological review of the diaries studies: Windmill tilting or social science. In K. Bailey, M. Long & S. Peek (Eds.), *Second language acquisition studies*. Rowley, MA: Newbury House.

Bongkasean, N., & Intarapraset, C. (2014). The use of English vocabulary learning strategies by Thai tertiary-level students in relation to fields of study and language learning experience. *English Language Teaching, 7*(5), 59-70.

Brown, H. D. (2000). *Principles of language learning and teaching.* New York, NY: Longman.

Cameron, L. (2001). *Teaching languages to young learners.* Cambridge, England: Cambridge University Press.

Catalan, R. M. J. (2003). Sex differences in L2 vocabulary learning strategies. *International Journal of Applied Linguistics, 13*, 54-77.

Celik, S., & Toptas, V. (2010). Vocabulary learning strategy use of Turkish EFL learners. *Procedia- Social and Behavioral Sciences, 3,* 62-71.

Chau, T. H. H., & Truong, V. (2019). The Integration of Intercultural Education into Teaching English: What Vietnamese Teachers Do and Say. *International Journal of Instruction, 12*(1), 441-456. https://doi.org/10.29333/iji.2019.12129a

Chumworatayee, T., & Pitakpong, T. (2017). The relationship between the use of vocabulary learning strategies and their usefulness as perceived by English major students in a Thai university. *LEARN journal: Language education and acquisition research network, 10* (2), 155-167.

Cohen, A. (2011). *Strategies in learning and using a second language* (2nd ed.). Harlow, England: Longman applied linguistics/ Pearson Education.

Creswell, J. W., & Clark, V. P. (2011). *Designing and Conducting Mixed Methods Research (2nd ed.).* Thousand Oaks, CA: Sage.

Cronbach, L. (1984). *Essentials of psychological testing (4th Ed.).* New York, NY: Harper and Row.

Dorney, Z., & Skehan, P (2003). Individual differences in second language learning. In C. J. Doughty & M. H. Long(Eds), *The handbook of second language acquisition* (pp.589-630). Oxford: Backwell.

Dornyei, Z. (2007). *Research methods in applied linguistics: Quantitative, qualitative, and mixed methods*. Oxford. UK: Oxford University Press.

Fan, M. (2003). Frequency of use, perceived usefulness, and actual usefulness of second language vocabulary strategies: A study of Hong Kong learners. *The Modern Language Journal, 87*(2), 222-241.

Gas, S.M., & Selinker, L.(2008). *Second language acquisition: an introductory course* (3rd Ed). New York, NY: Routledge.

George, D., & Mallery, P. (2002). *SPSS for Windows step by step: A simple guide and reference,* 11.0 update (4th ed.). Boston, MA: Allyn & Bacon.

Grabe, W. (1988). Reassessing the term "interactive". In P.L. Carrell, I. Devine, & D. E. Eskey (Eds.). *Interactive approaches to second language reading* (pp.56-70). Cambridge: Cambridge University Press.

Gu, Y., and Johnson, R. K. (1996). Vocabulary learning strategies and language learning outcomes. *Language Learning, 46*, 643-679.

Hsiao, T. Y., & Oxford, R. (2002). Comparing Theories of Language learning strategies: a confirmatory factor analysis. The Modern Language Journal, 86, 368-383.

Johnson, D. (1992). *Approaches to research in second language learning.* New York, NY: Longman Publishing Group.

Le Cao Tinh (2018). *Need analysis of English for mechanical engineersin the Vietnamese context.* Published doctoral dissertation, University of Wellington, New Zealand. Retrieved from https://researcharchive.vuw.ac.nz/xmlui/handle/10063/6973

Le Thi Tuyet Hanh (2018). *The relationship between Multiple Intelligences and vocabulary learning strategies of EFL university students.* Published doctoral dissertation, Hue University of foreign languages, Vietnam. Retrieved from http://sdh.hueuni.edu.vn/attachments/article/1248/NOIDUNGLA.pdf

Lip, P.C.H. (2009). Investigating the most frequently used and most useful vocabulary language learning strategies among Chinese EFL postsecondary students in Hong Kong. *Electronic Journal Foreign Language Teaching, 6* (1), 77-87.

Lưu Trọng Tuấn (2011). An empirical research on self-learning vocabulary. *Theory and Practice in Language Studies, 1*(12), 1688-1695.

Moir, J., & Nation, I.S.P. (2002). Learners' use of strategies for effective vocabulary learning. *Prospect*, 7(1), 15-35.

Nation, I.S.P. (1990). *Teaching and learning vocabulary*. New York, NY: Newbury House.

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

Nunan, D., & Bailey, K. (2009). *Exploring second language classroom research: a comprehensive guide*. Boston, USA: Cengage.

Oxford, L. R (2017). *Teaching and researching language learning strategies: Self-regulation in Context* (2nd ed.). New York, NY: Routledge.

Oxford, R., & Nyikos, M. (1989). Variables affecting choices of language learning strategies by university students. *Modern Language Journal, 73*, 291-300.

Oxford, R., Lavine, R., Felkin, G., Hollaway, M., & Saleh, A. (1996). Telling their stories: Language students use diaries and recollection. In R. L. Oxford (Ed.), *Language learning strategies around the world: Cross-cultural perspective*. (Technique Report # 13). Honolulu, HI: Second Language Teaching & Curriculum Centre, University of Hawai'i.

Pham Thi Quynh Nhu (2019). *Designing a vocational English curriculum for Hue industrial college*. Unpublished doctoral dissertation, Hue University of Foreign Languages, Vietnam. Retrieved from https://hucfl.edu.vn/vi/index.php.

Pressley, M., Levin, J. R., McCormick, C.B., Miller, G.E., & Berry, J. K. (1982). Mnemonic versus nonmnemonic vocabulary learning strategies: Additional comparisons. *Journal of Educational Psychology, 74,* 693-707.

Takac, V. P. (2008). *Vocabulary learning strategies and foreign language acquisition.* London, UK: Cromwell Press Ltd.

Rose, H. (2015). Researching language learning strategies. In B. Paltridge & A. Phakiti (Eds.). *Research methods in applied linguistics* (pp.323-375). London, England: Bloomsbury.

Siriwan, M. (2007). English *Vocabulary Learning Strategies employed by Rajabhat University students.* Unplublished Doctoral Dissertation, Suranaree University of Technology, Thailand)

Schmitt, N. (1997). Vocabulary learning strategies. In N. Schmitt and M. McCarthy (Eds), *Vocabulary: Description, acquisition and pedagogy* (pp.199-227). Cambridge, England: Cambridge University Press.

Stoffer, I. (1995). *University foreign language students' choice of vocabulary learning strategies as related to individual difference variables* (Unpublished PhD dissertation). Tuscaloosa, AL: University of Alabama.

Tseng, W.T., Dornyei, Z., & Schmitt, R. (2006). A new approach to assessing strategic learning: the case of self-regulation in vocabulary acquisition. *Applied Linguistics, 27*(1), 78-102.

Wharton, G. (2000). Language learning strategy use of bilingual foreign language learners in Singapore. *Language learning, 50*(2), 203-244.

William, R. (1985). Teaching vocabulary recognition strategies in ESP reading. *ESP Journal*, *4*, 121-131.

Wu, X., Lowyck, J., Srcu, L., & Elen, J. (2013). Task complexity, student perceptions of vocabulary learning in EFL, and task performance. *British Journal of Educational Psychology, 83*, 160-181.