3L: Language, Linguistics, Literature® The Southeast Asian Journal of English Language Studies
Vol 29(1), March 2023 http://doi.org/10.17576/3L-2023-2901-07

Strategic Vocabulary Learning in Vocabulary List Learning: Insights from EFL Learners in Thailand

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ABSTRACT

Considering the number of class hours and the variety of learning materials provided in an EAP course at a university, the frequently estimated number of words that EFL students must master to function in English appears excessive. Recently, though, vocabulary list learning has evolved as an alternate approach to addressing such concerns. The current research investigated the strategic vocabulary learning that EFL students developed during word list learning. A list of 500 A1-A2 academic words divided into 10 sets was compiled and incorporated into a 10-week EAP English vocabulary course. The vocabulary acquisition of students was evaluated using weekly vocabulary tests (consisting of the words learned each week) and a final vocabulary exam (involving all the words in the 10 vocabulary sets). At the completion of the learning, quantitative and qualitative surveys were administered. The results of a mixed-method analysis revealed 1) memory, selective attention, learning words through use, and dictionaries as the most frequently used strategies; 2) shared learning strategies between male and female students, except for taking notes and visual repetition strategies; and 3) the efficacy of the infrequently used strategies in EFL students' vocabulary acquisition. The findings of the study call for the incorporation of explicit VLS instructions and training into students' word list learning, as well as the evaluation of how long words acquired by students will remain in their memories; continuous monitoring and evaluation; and teachers' continuous technical and emotional support during word list learning.

Keywords: strategic vocabulary learning, word list, academic word, vocabulary acquisition, Thai higher education

INTRODUCTION

While the significance of vocabulary in learning English as a foreign language (EFL) is well acknowledged, there is simply a huge range of single words and multiword units to acquire, making it a daunting, never-ending endeavor for EFL learners (Gu, 2012). English contains at least 600,000 words, with around 100,000-word families (Oxford English Dictionary, 2022). Previous research has simplified the number of words English learners need to acquire to function and understand various types of spoken and written discourse, but they vary significantly depending on the scope of the learning objectives (Nurmukhamedov & Webb, 2019):

- 8,000-9,000-word families are required for reading and 6,000-7,000 for listening (Nation, 2006), but 2,000-3,000-word families are argued to be sufficient for listening comprehension (van Zeeland & Schmitt, 2012).
- for oral discourses, 5,000–7,000-word families are needed (Schmitt, 2008), and 2,000–3,000-word families seem to be adequate to engage in basic everyday speech communication and begin reading texts (Schmitt, 2007).

Recently, for pedagogy practicality, a growing number of studies have specifically examined the thresholds of lexical coverage — the percentage of vocabulary in the learning materials that students need to know — and vocabulary size — the number of specific words that students need to acquire within the established lexical coverage (Schmitt et al., 2017), highlighting the need for 80 to 100 percent lexical coverage (Webb, 2021) and the influential effects of vocabulary knowledge on English proficiency (Qian & Lin, 2019).

In the past two decades, several countries have set the minimum number of words students must attain along with the instruction hours at the university level (Schmitt, 2008). EFL students in Indonesia must acquire 1220 English words within 900 hours of instructions (Nurweni & Read, 1999), 2,000 – 5,000 words within 935 – 2,177 hours of instructions in Saudi Arabia (Milton & Al-Masrai, 2012), 2,000 - 2,300 words within 800-1200 hours of instructions in Japan (Barrow et al., 1999), 4,000 words within 1800-2400 hours of instruction in China (Laufer, 2001) and 2,000 words within1350 hours of instruction in Oman (Horst et al., 1998). In Thailand, at the research site, the university policy requires students to learn 3000 words in two years, which means 500 words in one term – 12 weeks (Waluyo, 2020). There are three academic terms in one year involving 72 – 100 hours of instructions in per term. Since the university implements English medium instruction (EMI), students are expected to continue acquiring vocabulary throughout their studies and across courses. Despite the undeniable importance of vocabulary acquisition, these figures seem unrealistic when considering the number of class hours and the variety of learning material coverage in formal learning. Therefore, empirical studies have been exploring appropriate instructional designs for formal vocabulary learning success as at a university level that can better facilitate the acquisition of the targeted number of words.

Vocabulary acquisition through deliberate vocabulary list learning has been advised as one of the alternative solutions to this concern. A vocabulary list may be used as a resource for creating vocabulary learning goals, assessing vocabulary knowledge and development, and generating and integrating vocabulary learning aids (Gardner & Davies, 2014). Teachers may choose which words to use in teaching based on the requirements of their students; for instance, they can use words from the Essential Word List (Dang & Webb, 2016) for beginners and the Academic Vocabulary List (Gardner & Davies, 2014) for EAP students. The vocabulary lists used in this research are derived from lists corresponding to levels A2 to B1 of the Common European Framework of Reference for Languages (CEFR). Moreover, empirical studies have also found that vocabulary list learning enables teachers to involve students' vocabulary learning outside of the class hour and integrate internet-based applications such as Quizlet (Waluyo & Bakoko, 2021a), which has been found effective for low-proficiency students too (Waluyo & Bucol, 2021). There is, however, still little known about the strategic vocabulary learning students develop in this mode of learning and the link to the success of vocabulary acquisition, which this study intends to address.

LITERATURE REVIEW

MAPPING EFL STUDENTS' VOCABULARY LEARNING STRATEGIES

Vocabulary learning strategies (VLS) are described as teachable, dynamic ideas and actions that learners deliberately choose and deploy in certain circumstances to enhance their self-regulated, autonomous L2 vocabulary acquisition (Oxford, 2017). It depicts learners' attempts to manage their own vocabulary acquisition to make it more effective and efficient (Gu, 2012). It should serve two purposes: to increase vocabulary knowledge and to enable constructive use of that knowledge

(Gu, 2003). As part of language learning strategies, the essence of investigating VLS in different contexts lies in the belief that it can be taught and used to enhance student learning to achieve the desired outcomes, allowing the establishment of comparative strategies among learners with varying degrees of success (Moir & Nation, 2002). Nonetheless, early, and recent empirical findings indicate various VLS employed by EFL students in different countries (Chou, 2022; Fan, 2003; Gu & Johnson, 1996; Ghalebi et al., 2021). Hence, it is important to first map EFL students' VLS as identified by preceding research, which can later be compared to the findings of the current study.

The questionnaire has been a prominent instrument in research concerning VLS due to the practicality of collecting data from a large group of students (Oxford, 2017), which is usually followed by interviews to gain more elaborated responses from research participants. One of the most used instruments is the Vocabulary Learning Strategies Survey (VLSS), developed by Schmitt (1997). The instrument maps students' VLS in four areas: social strategies, cognitive strategies, metacognitive strategies, and memory strategies. Another popular instrument is the Vocabulary Learning Questionnaire (VLQ), compiled by Gu and Johnson (1996) and updated by Gu and Hu (2003), collecting student data on: beliefs about vocabulary learning, metacognitive regulation, guessing strategies, dictionary strategies, note-taking strategies, rehearsal strategies, encoding strategies, and activation strategies. Yet, VLQ was questioned about its English version validity; therefore, the latest validation of the English version was released by Gu (2018). Despite the differences in the grouping strategies, the micro items in these two questionnaires capture similar information as their designs are based on cognitive and metacognitive strategies, emphasizing the frequency of use of specific strategic behaviors (Zhang & Lu, 2015). Earlier, Stoffer (1995) created a comprehensive inventory of VLS involving strategies in authentic language use, self-motivation, word organization, mental linkages, memorization, active creativity, physical action, overcoming anxiety, and auditory learning. Drawing upon VLS identified by preceding studies, Fan (2003) created nine VLS, encompassing management, sources, guessing, dictionary repetition, association, grouping, analysis, and known words, used to assess EFL students' VLS in Hong Kong.

Empirical studies on EFL students' VLS have been carried out in different countries. As a result of variations in study approaches, the results represent a vast array of variations. In Hong Kong, Fan (2003) discovered that guessing was the most popular strategy, followed by known words, analysis, dictionary, sources, repetition, grouping, association, and management, yet the most popular strategy was not necessarily deemed the most effective. A cluster analysis conducted by Kojic-Sabo and Lightbown (1999) revealed seven vocabulary learning profiles involving time, independence, dictionary use, review, and note-taking strategies, indicating that more frequent and elaborate strategy use was associated with higher levels of vocabulary learning outcomes, whereas strategies containing a lack of self-reported effort from the students were associated with low achievement. In China, regardless of gender, students believed that words should be picked up in context, studied, and applied. Other highly used strategies entail metacognition, contextual guessing, dictionaries, note-taking, rehearsal, and encoding, signifying that significantly more use of almost all strategies that were found to be correlated to success, similar to what was found in Gu and Johnson (1996). Moreover, indirect strategy usage (e.g., social and metacognitive strategies) showed a larger connection with two measures of vocabulary knowledge, indicating that Chinese EFL students with a greater degree of lexical repertoire preferred to use indirect methods (Teng, 2015).

In Japan, students mostly employed written rehearsal strategies, but when explicit VLS instructions were provided, their usage of input-seeking and oral rehearsal strategies changed significantly, resulting in improved vocabulary test scores (Mizumoto & Takeuchi, 2009). In contrast, guessing and dictionary strategies were the most prevalent among Iranian EFL students (Hadavi & Hashemi, 2014), which corresponds to the EFL students' VLS in Malaysia (Mokhtar et al., 2017). There have been reports of low and moderate usage of overall VLS among students in Thailand (Boonkongsaen, 2013; Nirattisai, 2014). The majority of research in Thailand, however, use Schmitt's (1997) VLSS, and the findings indicate that students make extensive use of the VLS overall (Chumworatayee & Pitakpong, 2017). Studies have identified memory (Thiendathong & Sukying, 2021) and dictionary use (Panduangkaew, 2018) as the most often utilized strategies, with the learning context and vocabulary acquisition circumstances influencing their usage.

GENDER DIFFERENCES IN VOCABULARY LEARNING STRATEGIES

The gender of EFL students has long been recognized as a determining factor in their choice of vocabulary learning strategies (VLS), with female students historically demonstrating greater success in language acquisition compared to their male counterparts (Sunderland, 2000). Despite this, research findings regarding VLS have been inconsistent, with a greater degree of consensus surrounding the superiority of female students. With the exception of encoding strategies, female students have been found to employ a greater range of metacognitive, guessing, note-taking, rehearsal, dictionary, and activation strategies, which positively correlate with their vocabulary knowledge and overall English proficiency (Gu, 2002). Additionally, female students tend to demonstrate higher overall strategy utilization percentages, suggesting that learning behaviors and perceptions can vary among students of different genders (Catalan, 2003). Female students have been observed to favor the utilization of dictionaries and note-taking, as well as socialization during vocabulary learning, which has a positive impact on their vocabulary acquisition (Fan, 2020). However, students' choice of VLS can also be influenced by factors such as the perceived usefulness of strategies, learner psychology, and opportunities for practice, regardless of gender (Duong, 2022).

The prior research conducted globally has established the presence of substantial disparities between male and female students' vocabulary learning strategies (VLS) in countries such as Turkey (Okyar, 2021), Japan (Kobayashi & Little, 2020), Korea (Park, 2001), and China (Gu, 2002). Despite this, limited studies have been carried out in Thai higher education contexts that explore EFL learners' vocabulary learning strategies. In a study conducted by Ng (2018), it was found that male students more frequently employed form-focused strategies and metacognitive monitoring and evaluation techniques, while female students preferred meaning-focused cognitive strategies and metacognitive planning techniques. Additionally, recent studies have investigated the integration of gamification apps in facilitating Thai EFL learners' vocabulary acquisition both inside and outside the classroom (e.g., Rofiah & Waluyo, 2020; Waluyo & Bucol, 2021). It has been noted that Thai EFL learners encounter difficulties in understanding nouns, both in terms of form and meaning, and in recognizing lexical and grammatical collocations (Tran & Waluyo, 2021). Nevertheless, the results of Waluyo & Bakoko (2021b) indicated that Thai EFL learners' academic vocabulary knowledge and usage have no correlation with their writing performance, overall English proficiency, or specific English skills such as reading, speaking, and writing. Given the significance of gender roles in vocabulary learning strategies and the scarcity of studies in Thai contexts, the present investigation seeks to contribute by considering gender as a variable of

interest. The anticipated outcomes of the study will provide valuable insights into the enhancement of vocabulary instruction through vocabulary lists in English courses at the university level.

PEDAGOGICAL USE OF VOCABULARY LISTS IN ENGLISH VOCABULARY LEARNING

Vocabulary teaching and learning through word lists has long been known as one prominent decontextualizing technique (Oxford & Crookall, 1990). It is one common and challenging aspect that there are too many words to acquire while there is limited time available in the teaching and learning process, and word lists are useful in these circumstances. To date, scholars have created various vocabulary lists, starting from the General Service List by West (1953) and the University Word List (UWL) by Xue and Nation (1984) to the more recent ones, such as the Essential Word List (Dang & Webb, 2016) and the Academic Vocabulary List (Gardner & Davies, 2014). Following the advancements in corpus software analysis tools and cognitive research, corpus-based vocabulary list research has produced new word lists over the past century, and the generated lists have evolved to target more and more niche learning communities, simplifying vocabulary learning by narrowing target taught and learned words (Folse & Youngblood, 2017). It is recommended that learning materials, such as course textbooks and modules, draw from these scientifically validated word lists, focusing on the most commonly occurring and frequently used English words in the intended learning situations (Lessard-Clouston, 2013).

In a study involving first-year Social Sciences students at a private university in Kanagawa, Japan, Yamamoto (2014) examined vocabulary acquisition through deliberate vocabulary list learning and observed positive effects not only on the development of receptive vocabulary knowledge but also on the development of productive vocabulary knowledge and the overall depth of vocabulary knowledge. In a separate study, Bakla and Cekic (2017) revealed that students who independently studied vocabulary lists outside of class scored better than those who acquired vocabulary solely by reading text. In spite of the belief that learning through vocabulary lists only encourages rote memorization, Mehrpour (2008) discovered in an experiment that students who memorized and independently studied word lists performed better on sentence-making tests than those who studied using a contextualizing technique. Furthermore, students who individually studied word lists had comparable outcomes to those who independently studied semantic mapping (Khoii & Sharififar, 2013).

In Thailand, there have been attempts to construct technical word lists for specific EFL learners' needs. Among them are technical word lists for Thai tourist guides created by Laosrirattanachai and Laosrirattanachai (2021) and a beverage service word list for English for specific purposes classroom developed by Ayutthaya et al. (2022). Recent studies have examined the effectiveness of integrating vocabulary lists into Thai EFL students' vocabulary learning. Students who learned 500 academic words through a weekly word list (50 words per week) for 10 weeks showed a significant improvement in their vocabulary post-tests with a medium effect size (Waluyo, 2020). When the vocabulary list learning was mixed with formative vocabulary assessments, Waluyo (2018) noted a positive impact on students' vocabulary acquisition both at the beginner and intermediate levels. Learners reported significant impacts on their autonomy in vocabulary learning and on facilitating vocabulary training moderately in an English course using word lists supported by a gamification app (Waluyo & Bakoko, 2021a), which also worked effectively for low-proficiency students (Waluyo & Bucol, 2021). The utilization of word lists can help foster self-regulated learning during the vocabulary acquisition process, in which the outcomes are linked to students' speaking and writing development (Waluyo, 2018).

THE RESEARCH GAP AND STUDY

After analyzing the existing literature on VLS and vocabulary list learning, this study determined that no prior research has examined the strategic vocabulary learning that EFL students develop throughout their word list learning. As a result, little is known about the efficacy of VLS use by students in this mode of learning in achieving vocabulary learning objectives. Given the usefulness of identifying EFL students' VLS and the potential of word lists for addressing the concerns of limited instruction hours and the number of words to be taught and learned, this study employs a mixed-method investigation in a single group research design that implements vocabulary list learning in one academic term (12 weeks) with university-level Thai EFL students. The following research questions are dealt with:

1. What strategic vocabulary learning do students develop during their vocabulary learning using vocabulary lists in an EAP course in higher education?
2. How different are female and male students in their vocabulary learning strategies?
3. How do students' vocabulary learning strategies affect their vocabulary learning outcomes?

METHOD

CONTEXT AND PARTICIPANTS

This study was conducted at a Thai university. After receiving university approval, a purposive sample method (Bernard, 2017) was utilized to recruit first-year undergraduate students enrolled in an English for Academic Purposes (EAP) course. Potential participants were informed of the study objective and granted signed consent. The study involved 115 undergraduates (51/44.3% males and 64/55.65% females), ranging from 18 to 21 years old. The students studied electrical engineering, computer engineering, economics, architecture and design, communication arts, etc. No English majors participated. Foreign English lecturers taught the students an EAP course on academic communication skills. The Common European Framework of Reference (CEFR) categorized the students as A1-A2 basic English users.

INSTRUMENTS AND MEASURES

TARGET WORDS

A collection of 500 academic words was compiled using the Essential Word List (Dang & Webb, 2016), the Academic Vocabulary List (Gardner & Davies, 2014), and course textbooks. The words were largely A1-A2, although some B1-B2 words were included owing to their widespread usage in academic contexts. The CEFR levels were tested on https://www.vocabkitchen.com/home. Some instructional phrases were included in the lists. The 500 words were split into 10 vocabulary sets (50 words per set) that students studied for 10 weeks outside of class. In each weekly set, students had to compose word definitions and sample sentences for each assigned word and submit them to the teacher in the next week's class. Students were shown how to utilize print and online dictionaries to improve their vocabulary. Some words were taught in class.

TABLE 1. *Sample target words*

Festival (n)	Bucket (n)	Spend (v)	Thirsty (adj.)
Beautifully (adv.)	Neighbor (n)	Involve (v)	Trust (v)
Event (n)	Carry (v)	Major (adj.)	Honest (adj.)
Include (v)	Wet (adj.)	How long	Slowly (adv.)
Battle (n)	Tourist (n)	Earn (v)	Fair (n)
Ancient (adj.)	Huge (adj.)	Costume (n)	Vacation (n)
Tradition (n)	Town (n)	Lost (v)	Gather (v)
Unlike (adj)	Village (n)	Bridge (n)	Custom (n)
Average (adj.)	Offer (v)	Broken (adj.)	Decoration (n)
Throw (n)	Local (n)	Lend (v)	Diligently (adv.)

Notes: n = noun; adj. = adjective; adv. = adverb; v = verb

VOCABULARY TESTS

Vocabulary tests were used to assess students' vocabulary acquisition. The tests were created using the specified word lists. The test featured four types of multiple-choice questions: synonym, antonym, sentence completion, part of speech, and definition. Students received weekly vocabulary tests in class. At the conclusion of the term, students completed a final vocabulary exam. Researchers gathered vocabulary scores from weekly tests and computed totals. We also recorded the students' final vocabulary exam scores. All these data were utilized to assess students' vocabulary acquisition through vocabulary list learning. Weekly vocabulary exams were conducted via Socrative.com in class, where students could utilize their smartphones and receive immediate feedback on their test performance. Figure 1 presents some vocabulary questions on Socrative.com.

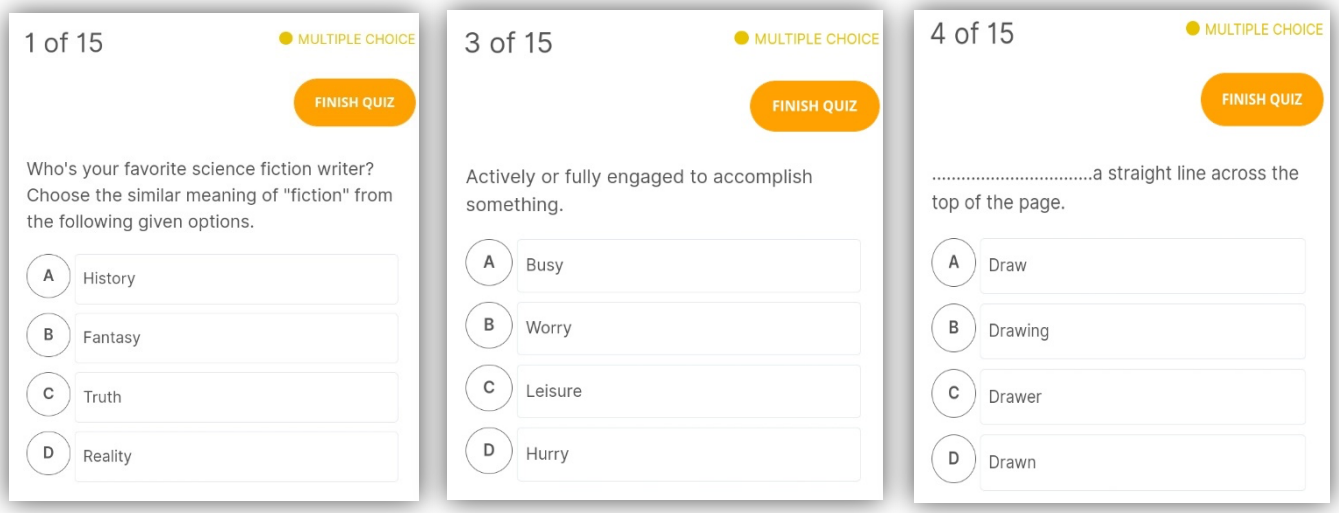

FIGURE 1. Sample test questions

SURVEYS

Surveys were used as the instrument to elicit student data on VLS.

LIKERT-SCALE SURVEY**.** Due to its strong item validity and suitability for evaluating VLS in Asian EFL students, the VLQ by Gu and Johnson (1996) and Gu (2018) was employed. The 62-item survey was delivered via Google Forms, and students completed it voluntarily. The 62 items included statements such as "The best way to remember words is to memorize word lists or dictionaries." and "I know which words are important for me to learn." The options for items 1–10 were: 1 = Strongly Disagree and 5 = Strongly Agree, while items 11–62 also involved: 1 = very untrue about me and 5 = very true about me. All the participants (N = 115) completed the surveys. The survey contained 16 aspects of vocabulary learning strategies:

- words should be memorized (items 1-6) (α = .82)
- words should be learned through use (items 7-10) (α = .72)
- meta-cognition strategies (items 11-13) (α = .7.3)
- self-initiation (items 14-17) (α = .75)
- inferencing guessing strategies (items 18-24) (α = .89)
- using the dictionary (items 25-31) (α = .86),
- taking notes (items 32-34) (α = .89),
- deciding what information goes into notes (items 35-37) (α = .81)
- rehearsal (items 38-40) (α = .82)
- oral repetition (items 41-43) (α = .66)
- visual repetition (items 44-46) (α = .80)
- visual encoding (items 47-49) (α = .81)
- auditory encoding (items 50-52) (α = .82)
- use of word-structure (items 53-55) (α = .80)
- contextual encoding (items 56-58) (α = .74)
- activation (items 59-62) (α = .83).

  The Cronbach's alpha for all the items was .97, considered excellent.

QUALITATIVE SURVEY. Three qualitative survey questions were used to elicit more detailed participant responses on VLS during vocabulary list learning. The questions concentrate on how students studied the offered vocabulary lists, how they perceived their vocabulary development, and what hurdles they experienced. Student responses totaled 6,666 words derived from 115 participants.

RESEARCH PROCEDURES

Stage 1 - Preparation

Researchers prepared the target word lists and briefed the lecturers about the vocabulary learning process. The students were placed in four different classes taught by the same lecturer. In the first meeting, the lecturer gave a short introduction of the objectives of the vocabulary learning and the resources students could use to maximize their word list learning outside of the classroom.

Stage 2 - Data Collection

Students studied each vocabulary set independently every week, then took the vocabulary test in class the following week for 10 weeks. Researchers collected students' vocabulary test results every week and after the final exam at the end of the term. Surveys were issued at the end of the course. The obtained data was cleaned and readied for analysis.

Stage 3 - Data Analysis

Using quantitative and qualitative data, the three research questions were investigated. Descriptive (Mean and SD) and inferential (t-tests, correlation, and linear regression) statistics were used for quantitative data. The qualitative data was thematically analyzed. Thematic analysis identifies, analyzes, and reports data themes (Braun & Clarke, 2006). Literature and research inquiries helped generate the topics. Researchers applied a deductive approach to code and interpret the data, a top-down analysis evaluating how meanings are coded and structured to form themes (Braun et al., 2015). In the study, researchers brought to the data the identified students' VLS resulting from quantitative analysis. The collected responses were grouped into the 16 VLS as suggested by Gu and Johnson (1996) and Gu (2018). The students were labelled with S and a continuous number, such as S1, S2, S3, and so forth. The results of quantitative and qualitative analyses were triangulated to answer each research question.

RESULT AND DISCUSSION

STRATEGIC VOCABULARY LEARNING THAT EMERGED DURING VOCABULARY LIST LEARNING

The descriptive Likert-scale survey results indicated three most frequently employed strategies: memory (M = 3.89, SD = .63), selective attention (M = 3.88, SD = .66), and learning words through use strategies (M = 3.81, SD = .67). The students also frequently used guessing (M = 3.80, SD = .63), oral repetition (M = 3.77, SD = .65), taking notes (M = 3.76, SD = .77), visual encoding (M = 3.72, SD = .67), and dictionary strategies (M = 3.72, SD = .58). In contrast, the students rarely applied self-initiation (M = 2.99, SD = .83), rehearsal (M = 3.21, SD = .78), and use of word structure strategies (M = 3.48, SD = .69), while the remaining strategies were moderately utilized by the students. All the SD values were lower than 1, signifying that the strategy use was almost evenly shared among the students. Interestingly, the students discussed more instances of dictionary strategy use in the qualitative data. The online dictionaries, e.g., Oxford and Cambridge, were the students' main resources for looking up words and translating English words into Thai words; however, there was no mention of dictionary books, which could be because all the students possessed smartphones and most of them owned an I-pad or a tablet. The following excerpts exemplify these points:

> I opened the vocabulary list from the document that was given to me, and then I looked it up in the online Oxford dictionary. (S36)

> I always used a translation from English to English and I read the meaning to try to understand it. After that, I translated into Thai to check that I understood correctly. (S57)

> Reading, translating, writing, and sentence formation were the primary methods of learning for the first ten sets of vocabulary I studied in my English class. To develop my language skills, I engaged in frequent practice with reading, writing, and sentence construction. (S9)

Nevertheless, memory, selective attention, and learning words through usage strategies were highly employed by the students. The students' qualitative responses directed that the students apply the strategies together in one process, regardless of the order. For instance, the students knew the words that they had to learn, then they memorized the words; in this memorization, the students wrote the words in samples or new sentences; several of them included oral repetitions. Yet, there was a little indication that as the learning process progressed week by week, the students tended to memorize the target words when the vocabulary test time was approaching. Moreover, the self-initiation strategy, where the students carried out some initiatives, such as looking for other readings, reviewing the listed words through online quizzes, and checking the listed words' pronunciations online, was among the most frequently used, as reflected in these comments:

> I memorized each vocabulary list by applying it to my everyday life, such as by producing 10 sentences each day. If there are any words I cannot recall, I jot them down in a notepad and keep them with me for review, and I practice guessing alternate words with friends. Using the English translation will assist in remembering the words more so than the Thai meaning alone. Additionally, it helps in practicing accents. It also lowers shyness while speaking English. (S33)

> I studied the vocabulary lists by writing, reading, and revisiting them on a regular basis. As the test approached, I practiced remembering the vocabulary until I could recall it. (S35)

The least employed strategies stayed unchanged from the survey results. The students' qualitative responses did not expand on these strategies, which included visual encoding, auditory encoding, word-structure utilization, and contextual encoding strategies.

This first finding, specifying memory, selective attention, learning words through use, and dictionary strategies, emerged as the students' strategic vocabulary learning in vocabulary list learning, which does not correspond with the findings among EFL students in Japan (Mizumoto & Takeuchi, 2009). The findings sustain earlier studies' outcomes in Thailand (Panduangkaew, 2018; Thiendathong & Sukying, 2021) and China (Gu, 2002). Although dictionary strategy was identified among the most used ones in Hong Kong (Fan, 2003), Iran (Hadavi & Hashemi, 2014), and Malaysia (Mokhtar et al., 2017), guessing strategy was placed on par, which the present study's findings do not support. This may be due to the nature of learning vocabulary through word lists that encourage rote memorization and the use of dictionaries (Bakla & Cekic, 2017), while other strategies could be executed on self-initiation. From these findings, it seems that Thai EFL students were merely focused on completing the provided word lists and memorizing the listed words for test purposes.

GENDER DIFFERENCES IN THE EMERGING STRATEGIC VOCABULARY LEARNING

The independent t-test results demonstrated no significant differences between male and female students in their overall and specific VLS in vocabulary list learning, except on two strategies: taking notes (t (113) = 2.08, p = .04) with a small effect size (*Cohen's d* = (3.8906 - 3.5948) / .760665 = .389) and visual repetition (t (113) = 2.26, p = .03) with a small effect size (*Cohen's d* = (3.776 - 3.451) / .768072 = .42). Female students deployed these two strategies more often than male students, which partially validates the results of Gu (2002) about these strategies. These significant differences support Fan's assertion (2020) that females prefer to take notes during language learning, but the current research demonstrates that women also practice visual repetition more often than males. In spite of this, the study's results partly support the contention that female

students' total VLS use rates are higher, demonstrating that perceptions and learning behaviors vary among students of different genders (Catalan, 2003). The qualitative findings, as indicated by the comments of female students below, confirm these deductions.

> I used my mobile phone and computer to take notes and study with friends or by myself during spare time or when I had the opportunity. (S10)
>
> I learnt new vocabulary by writing them down to help me remember them. (S27)
>
> I found memorizing vocabulary lists unique and engaging. Certain phrases, never previously seen in a highly open universe, may make it a reality. Teachers were willing to help and enabled students to visualize the words they had learned. Overall, it is excellent. (S21)

THE EFFECTS OF THE EMERGING VLS ON VOCABULARY LEARNING OUTCOMES

Bivariate correlation results confirmed that the use of the overall VLS was not closely associated with students' vocabulary learning outcomes, measured by weekly vocabulary tests (r = .081, p = .387) and vocabulary final exam (r = .20, p = .830). Among the specific strategies, guessing (r = .195, p = .037) and visual encoding strategies (r = .223, p = .017) had significant correlations with vocabulary test results; these strategies were also significantly related to students' scores in the vocabulary final exam (r = .186, p = .046; r = .183, p = .049). Afterwards, multiple linear regressions were performed from these two strategies to students' scores in the weekly tests and final exam. The results displayed that guessing strategies could significantly predict 20% (R^2 = .20) and 23% (R^2 = .23) of the variances in the weekly tests (F (114, 1) = 4.44, p = .037) with a medium effect size (f^2 = .25) and the final exam (F (114, 1) = 5.91, p = .017) with a medium effect size (f^2 = .30). Meanwhile, visual encoding strategies could significantly foresee 19% (R^2 = .19) and 18% (R^2 = .18) of the variances in the weekly tests (F (114, 1) = 4.06, p = .046) with a medium effect size (f^2 = .23) and the final exam (F (114, 1) = 3.93, p = .049) with a medium effect size (f^2 = .22).

In the qualitative survey, students expressed appreciation for the advantages of learning through vocabulary lists. The task of completing each vocabulary set weekly prompted students to not only remember but also write and regularly repeat the specified words throughout the learning process. Because there were 500 words, students encountered and learned various new words. The weekly vocabulary test results provide some intrinsic motivation to do better from one test to the next. Nonetheless, students admitted that they might not be able to recall all of the words they had learned, not only because their learning process was primarily driven by the existence of the test, but also because the lists contained many difficult and unfamiliar words; this is understandable given that they are low-proficiency students whose vocabulary knowledge was limited prior to learning the word lists. They favored learning basic terms that could be utilized in everyday situations from word lists. However, a tiny proportion of students said that there was no substantial improvement since they simply learned the word definitions. These might be the ones who did not apply the learning words by usage strategy. Below are some sample extracts:

> There is a vocabulary test every week in class, which increases your motivation to learn new words and improves your knowledge and comprehension of that language. When you respond erroneously and then look at the right answers, you are able to recall the words more precisely since you have already answered incorrectly. It aids in the enhancement of memory abilities. (S33)

> Regular repetition of recitation, reading, writing, and reviewing has increased my vocabulary understanding. Normally, I am unable to hear words while learning by listening. I can recall vocabulary after learning lists of English words. I consistently find it useful. (S35)

> It helped me comprehend the meaning and remember more words. Regarding the syntax, I used the website's Cambridge dictionary for translations. And sometimes, when I use Google Translate, I have an English-proficient acquaintance double-check my translations. The majority of the vocabulary is easy and used in daily life. (S70)

In this third finding, the overall usage of VLS had no influence on students' vocabulary development, similar to what was seen among Korean EFL learners (Lee, 2020). In addition, the two prominent strategies identified by the statistical analysis were not the most used and discussed strategies in the qualitative data. This is consistent with the view that the most often utilized strategies are not always the most successful. Fan (2003) noticed similar findings, noting that the most popular VLS among Hong Kong EFL students did not provide expectedly equivalent outcomes. According to Mizumoto and Takeuchi (2009), one of the greatest approaches to address this worry is to include explicit VLS in students' vocabulary list learning, since it may induce major improvements in students' utilized tactics The teacher's involvement is vital since students cannot pick the most successful strategy on their own; otherwise, the disparities shown in these data are likely to arise. The VLS of EFL students may change over time as their learning engagement increases (Gu, 2010), and their learning contexts and vocabulary acquisition circumstances may have a major effect on the strategy's use.

CONCLUSION AND IMPLICATION

Memory, selective attention, learning words by usage, and dictionary strategies are the most frequent ways to learn vocabulary lists. Except for note-taking and visual repetition, female and male students used the same strategies. Guessing and visual encoding revealed favorable relationships and substantial benefits on students' vocabulary learning. Data research revealed discrepancies between statistical findings and how students reported their vocabulary growth using word lists. This has pedagogical implications.

The first implication is that the most effective strategy for acquiring vocabulary is not the strategy most often used by students in the context of word list learning. Word list teaching should include explicit VLS instructions and training. Although vocabulary list learning is decontextualizing and emphasizes rote memorizing (Mehrpour, 2008; Oxford & Crookall, 1990), students should not begin their independent study with memorization. The initial learning stage should involve students guessing word meanings through their use in sentences. Such a process should involve visualizing the target word with something close to the students' background knowledge. Memorization should occur after these processes. Learning through word lists may seem like learning words one at a time, but if students' vocabulary knowledge is measured by vocabulary tests, this memory strategy may not lead to good results, as the results of this study show.

Second, if the learning objective is for students to acquire a specific number of words, vocabulary list learning has the potential to address the restricted hours of classroom vocabulary instruction. The qualitative findings of the research revealed that students viewed their word list-based vocabulary acquisition positively. Even though the students were engaged in repetitious learning for ten weeks, there were very few complaints. Despite this, the students were anxious

about their ability to recall the newly acquired vocabulary. The assessment of the research occurred immediately after the completion of the learning process; therefore, it did not measure the amount to which the gained vocabulary would be retained in the students' memories. Therefore, it is suggested that future research examine the assessment of learning that occurs a few weeks after the completion of the learning process.

To boost students' vocabulary acquisition using word lists, we should not depend on individuals' particular strategies for acquiring vocabulary. Teachers should undertake constant monitoring and assessment during the word list learning process, as well as gather student comments on their VLS and vocabulary test outcomes. Teachers would have the ability to modify failed student strategies and provide guidance on the most effective ones. One advantage of studying using word lists is that the target words are predetermined and reflect explicit learning goals. However, this should not imply that students are the only ones working hard to acquire the words; teachers' ongoing technical and emotional support may have a substantial impact on students' vocabulary acquisition results.

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