Vocabulary Learning Strategies and Vocabulary Size of ELT Students at EMU in Northern Cyprus

Seyed Ali Rezvani Kalajahi (Corresponding author)

Department of Language and Humanities Education, Faculty of Educational Studies

University Putra Malaysia, 43400 UPM Serdang, Selangor, Malaysia

Tel: 60-12-256-6070   E-mail: ali.rezvani85@gmail.com

Bahar Pourshahian

Department of Language and Humanities Education, Faculty of Foreign Languages Studies

University of Jahrom, Jahrom, Iran

Tel: 98-91-2217-2822   E-mail: Bpourshahian@yahcoo.com

Abstract

This research study aimed at exploring the relationship between vocabulary learning strategies and vocabulary size of 125 undergraduate English Language Teaching students at Eastern Mediterranean University. This research study was a correlational survey study of descriptive nature. The major findings of this study were as follows. First, the findings indicated that most of the ELT students adequately operated the psycholinguistic strategies, whereas somewhat adequately the metacognitive strategies. Next, the ELT students reportedly had a somewhat average vocabulary size to cope with advanced studies at the university level. Finally, this study found no relationship between the psycholinguistic strategy and the vocabulary size of the participants, and the relationships between the metacognitive strategy and the vocabulary size, as well as the vocabulary learning strategy questionnaire and the vocabulary size of the participants were negligible. The findings also revealed that students did not operate certain strategies, rather a variety of strategies.

Keywords: English language learning strategies, Vocabulary learning strategies, Vocabulary size

1. Introduction

Research on learning strategies has been inspired by two closely interwoven disciplines: cognitive psychology and second language acquisition. As Wenden (1991) states, "Research on learner strategies in the domain of second language learning may be viewed as a part of the general area of research on mental processes and structures that constitutes the field of cognitive science" (p. 6). Research into language learning strategies (henceforth LLS) began in the 1960s. A number of scholars studied LLS in various ways and had their notions on what they mean. For example, Cook (2001); Cohen (1998); Conti and Kolody (1998); Stern (1975); Oxford (1990); O'Malley and Chamot (1990); Chamot and O'Malley (1987); Ellis (1985); Politzer and McGroarty (1985); Wenden (1982); Cohen and Aphek (1981); Tarone (1980); Naiman, Frohlich, Bialystok (1978); Wong-Fillmore (1976) and others studied strategies used by language learners during the process of foreign language learning.

Above all, Oxford (1990) comprehensively defines "Learning strategies are specific actions taken by the learner to make learning easier, faster, more enjoyable, more self - directed, more effective, and more transferable to new situations (p. 8). With the emergence of the concept of language LLS, scholars have attempted to link these strategies with language learning skills believing that each strategy enhances learning of vocabulary, pronunciation, etc. in this regard, O'Malley et al. (1990) claims that most LLS are used for completion vocabulary learning tasks.

Schmitt's (1997) definition of VLS reflects Rubin's (1987) understanding of learning as Rubin (1987) views learning "The process by which information is obtained, stored, retrieved, and used" (p. 29). According to Schmitt (1997), "Vocabulary learning strategies could be any action which affects this rather broadly-defined process" (p. 203). Similarly, Cameron (2001) defines VLS as "actions that learners take to help themselves understand and remember vocabulary" (p. 92). Nation (2001) states that vocabulary learning strategies are part of general language learning strategies. Thus, it can be claimed that vocabulary learning strategies can contribute successfully to

learning.

Vocabulary learning has been problematic for most learners. Accordingly, vocabulary acquisition has currently received attention in second language pedagogy and research. Butit is still a contentious issue how learners acquire vocabulary effectively and efficiently or how it can best be taught. However, vocabulary is generally given little emphasis in the university curriculum in Asian countries (Fan, 2003). The situation is the same in Turkey and North Cyprus. Generally, the emphasis on English teaching in universities in Asian countries is on the four language skills. Congruently, inadequate vocabulary instruction and practice may notlead to obtaining adequate vocabulary and this in turn also leads them to lose interest in learning English language. Although there are many factors that make students successful or unsuccessful in language learning, using or not using appropriate VLS might be one among them. In addition, Şener (2009) confirms that "vocabulary is central to language and of critical importance to the typical language learner" (Zimmerman 1998, p. 5). Although it has always been an indispensable part of language teaching and learning, it is said that vocabulary teaching has not been responsive to problems in the area and teachers have not fully recognized the great communicative advantage in developing an extensive vocabulary.

2. Literature Review

2.1 Vocabulary Learning Theories

Calls for helping learners improve the way they go about learning vocabulary have been made on a number of grounds. Sokmen (1997, p. 225) argues for helping learners learn how to acquire vocabulary on their own, noting that it is "not possible for students to learn all the vocabulary they need in the classroom". Cunningsworth (1995, p. 38) regards helping learners develop their own VLS as "a powerful approach", which can be based on sensitization to the systems of vocabulary, encouragement of sound dictionary skills and reflection on effective learning techniques. Second language acquisition depends crucially on the development of a strong vocabulary. In the second language acquisition sub-discipline known as second language vocabulary acquisition, researchers have focused their attention on the need for second language learners to optimize their vocabulary knowledge (Singleton, 1999; Schmitt, 2000). VLS are a part of LLS which are receiving more attention since the late 1970s and their investigation has advanced our understanding of the processes learners use to develop their skills in a second or foreign language. Nation (2001) has taken this conscious choice factor into account when defining VLS.

2.2 Vocabulary Learning Strategies

Vocabulary knowledge is essential in learning a foreign language. Language learners know the importance of words in a language, but they may or may not be aware of the fact that VLS can help them to learn vocabulary successfully. With the emergence of the concept of LLS, scholars have attempted to link these strategies with language learning skills believing that each strategy enhances learning of vocabulary, pronunciation, etc. Scholars such as O'Malley (1985) and O'Malley et al. (1990) confirm that most LLS are used for vocabulary learning tasks.

For Nation (1990), the most important way to learn vocabulary is to use learners' independent strategies. In Nation's recent publication, vocabulary strategy training is suggested to be part of a vocabulary development program. According to Schmitt and Schmitt (1995), the best vocabulary teaching plan may be to introduce a variety of VLS to students so that they can decide for themselves on the ones they prefer. This echoes learners' need to develop their VLS knowledge.

2.3 Classification of Vocabulary Learning Strategies

Many language researchers have attempted to develop VLS taxonomies for instance, Schmitt(1997)Decarrico (2001),and Hedge (2000) developed a taxonomy of VLS based on the LLS taxonomy created by Oxford (1990); Stoffer (1995); Rubin and Thompson (1994); Cohen (1990). For the research purpose, the present study adopted Kudo'staxonomy of VLS because it is one of the most widely used taxonomy of VLS in research studies. Furthermore, it is claimed that Kudo's taxonomy can be standardized for assessment goals, can be utilized to gather responses from language learners easily, is based on the theory of learning strategies as well as on theories of memory, is technologically simple, can be applied to language learners of different educational backgrounds and target languages, is rich and sensitive to the other relevant learning strategies, and allows comparisons with other research studies (Çelik&Toptaş, 2010). Figure 1 presents Kudo's taxonomy of VLS. Kudo's study (1999) was fundamentally based on Schmitt's taxonomy of VLS. As the figure illustrates, Kudo combined memory and cognitive strategies into psycholinguistic strategy, metacognitive and social strategies into metacognitive strategy as a result of exploratory factor analyses and determination strategies removed as a result of factor analysis.

Kudo adopts Schmitt (1997) explanations of LLS and maintains that memory strategies, traditionally known as mnemonics, are one type of consolidation strategies. They usually involve relating the word to some previous knowledge. For example, using pictures of the meaning of the word instead of definitions or linking it to some

second language words already familiar to learner. Besides, using groups of unrelated words or grouping words according to some categories like synonyms or common themes are examples of memory strategies.

Orthographical or phonological form of a word can be used as a mnemonic strategy. One can study the spelling or pronunciation of a word in order to produce a lasting imprint of the word into memory. Furthermore, using affixes, roots and word classes can prove to be useful in consolidating the word meaning.

Cognitive strategies are similar to memory strategies and they do not focus on manipulative mental processing, rather on repetition and mechanical means to study vocabulary. The traditional and popular examples of these are written and verbal repetitions. Word lists flash cards, and taking notes, as well as using study aids such as language textbooks are also classified as cognitive strategies.

Metacognitive strategies are strategies used by learners to control and assess their learning. Metacognitive strategies such as reading books, watching movies, and interacting with native speakers enable learners to get maximum exposure to language. Efficient use of time and knowing when to actively study a new word are also useful metacognitive strategies.

2.4 Research on Vocabulary Learning Strategies

Attempts have been made by a few researchers to find out how learners cope with the difficulties encountered in language learning (Rubin, 1975; Stern, 1975; Naiman et al., 1978; Thompson, 1987; Knight, 1994). These research studies have produced different inventories of learning strategies, but their lists of VLS comprise more or less similar categories divided up in somewhat different ways (Stern, 1983). For instance, Oxford (1990) suggested that using a strategy at a medium level shows the learners are aware of the strategy but they need to be encouraged to use the strategy more in their learning. It can be done by asking the students in class to repeat the new word verbally after the teacher and asking them to continue the use of this strategy at home.

In addition, researches on VLS in EFL context have been searching since the last decade, both in breadth and in depth. Some of the research studies are experimental in nature focusing on specific VLS whereas others are descriptive studies attempting to describe the VLS of EFL learners, and in particular, that of graduates and undergraduates.

Gu and Johnson (1996) aimed to establish the VLS used by Chinese university learners of English and the relationship between their strategies and outcomes in learning English. The results showed that Chinese university learners use a variety of metacognitive vocabulary strategies.

Wen and Johnson (1997) investigated the VLS in their study of the relationship between learner variables and English VLS achievement by means of interview and diary. They found out that students are using psycholinguistic strategies (memory and cognitive) and metacognitive strategies very often.

Wu and Wang's (1998) study was remarkably comprehensive in investigating VLS used by non-English learners. They found that Chinese learners are active strategy users employing a large variety of VLS on both metacognitive and psycholinguistic strategy which partially confirmed Gu and Johnson's (1996) findings.

Zhang (2001) attempted to find out the characteristics of vocabulary learning strategies used by the non-English major graduate students and the difference between the stage of "general academic English learning" and "professional English learning". Zhang found that in the stage of "general academic English learning", the graduates use more psycholinguistic and metacognitive strategies and use them more frequently than those in the stage of "professional English learning".

Zarafshan (2002) examined why Iranian EFL learners don't tend to use metacognitive strategies? Upon investigation, Zarafshan found that curriculum design doesn't promote collaborative and social learning. Opportunities for using metacognitive strategies have not been provided in educational institutions. Furthermore, formal approach is communicative approach, but it is not really practiced. Both learners and teachers are interested in traditional approach in which the teacher is the centre of learning. The teacher provides all materials and students only follow the teachers instructions. Thus, there is no room for learning through discussion and applying social strategies.

Zarafshan study revealed that more sophisticated strategies including memory and cognitive strategies (psycholinguistic strategy) were most preferred whereas the use of metacognitive and social (metacognitive strategy) were least frequently used. This was congruent with Oxford's (1990) belief that adult learners tend to use more sophisticated VLS. In addition, the results were comprehended with Schmitt's findings. strategies such as; learn from word lists and use flashcards were both perceived to be less useful and used less by university students.

Wu (2005) conducted a study to investigate the VLS used by Taiwanese EFL secondary and university students. A questionnaire which included VLS based on Schmitt's (1997) taxonomy was administered. The VLS were

categorized in: metacognitive, social, memory, cognitive and determination strategy group. The questionnaire was distributed to secondary school students and English major university students. The results revealed that most students used the following discovery strategies: (1) using bilingual dictionaries to find out Chinese translations of English words; (2) guessing from textual context; and (3) asking classmates for the meaning of words. As for consolidating strategies, the following strategies were most popular among the students: (1) studying the sound of a word; and (2) repeating a word's form. According to Wu (2005), traditional methods of rote learning such as memorizing words and grammatical forms of the words in word lists still exist in Taiwan.

Sarani and Kafipour (2008) stated psycholinguistic strategy is the most frequently used strategy for the purpose of retaining new words while current training setting is communicative approach. They stated that the current communicative university training setting which depends relatively little on the requirement to memorize a lot of materials is not followed and practiced correctly by lecturers and students in Iran.

Hamzah, Kafipour, Abdullah (2009) conducted a research study entitled "vocabulary Learning strategies of Iranian undergraduate EFL students and its relation to their vocabulary size". They found that Iranian EFL learners are medium users of VLS. However, they discussed that it may be due to the study skills course, they pass in the first semester of their studies. According to them, this course makes freshmen familiar with different learning techniques and strategies in order to have a better learning. Moreover, it revealed that there was a positive correlation between VLS and vocabulary size of the students.

Şener (2009) investigated the relationship between VLS and vocabulary size of Turkish EFL students. Şener found that Turkish students use more metacognitive strategies efficiently than psycholinguistic strategy though they were often users of strategies. In addition, the study revealed that there is a positive correlation between VLS and vocabulary size of students. The finding was consistent with the research studies of Cohen &Apek(1981); Cohen(1990); and Ellis (1994&1985).

2.5 Vocabulary Size of the Language Learners

Vocabulary size refers to the number of words a learner has in mental lexicon. Nation (1990) analyzed one text for young native speakers and another for native speakers at the secondary level, and found that about 87% of the words in the text were all in the most frequent 2,000 headwords (base words) of English. The university words which occur frequently in most kinds of academic texts, technical words and low-frequency words account for the remaining 8%, 3% and 2% of the text, respectively. Nation also concluded that figures for collections of long texts also supported their findings from short texts. According to Nation (1990), all learners need to know about 2,000 to 3,000 word level in order to function effectively in English.

For instance, it is difficult for learners to read complicated texts unless they know high frequency words. These words occur often in the material read or listened to, and they occur in many different kinds of material on many different topics. Similarly, drawing on the previous studies, Laufer (1997) suggested that the threshold vocabulary size essential for reading comprehension is about 3,000 word level. It was shown that learners below the 3,000-word vocabulary level did poorly on the reading test regardless of how high their academic ability was. In terms of text coverage, the 3,000 word families were reported to provide coverage of between 90% and 95% of any text. Furthermore, it is necessary to have good knowledge of at least 5,000 words if someone aims to read advanced, authentic, academic texts (Hirsh & Nation, 1992).

In short, these studies suggest a threshold size of around 2,000 high-frequency words for effective basic language use and a vocabulary size of 3,000 to 5,000 words for successful text comprehension. On the other hand, a question emerges that how many words should a learner of English as a second or a foreign language learn? Many scholars have done research in this respect. Some scholars think that 2,000 key words are the least requirements (Nation, 2005). But if one wants to learn English better, 5,000 words are needed (Schmitt, 2000). Other think 3,000 words are the least requirement, and if one wants to learn English well, 8,000 words are necessary. It is reported that vocabulary size for Japanese high school students is 5,000 words while it is 10,000 words for Japanese university students. It is also reported that the vocabulary size for Russian high School students is 9,000 words while it is 15,000 words for Russian university students. Hazenburg states that vocabulary size of Dutch university students is 10,000 word level (Allen, 1983).

3. Significance of the Study

This study aimed to survey students' VLS and vocabulary size. It is believed that an awareness of individual differences in learning can make all those people involved in English as a foreign language (henceforth EFL) teaching profession and learning more sensitive to their roles, respectively. Furthermore, it may promote competitive teaching and learning as well as develop students' potential life and assist students to become cognizant of the ways

for more effective learning. It may also help students to develop strategies, and ways to become more motivated and autonomous learners. Understanding of students' vocabulary learning strategy use will enable teachers and researchers to design appropriate materials and activities to help students enhance their lexical competence.

4. Research Questions

Since the purpose of this study was to explore the VLS, the vocabulary size, and the relationship between the VLS and the vocabulary size of the undergraduate ELT students at EMU, the research study was designed to first determine the VLS and the vocabulary size of the undergraduate ELT students at EMU and then examine the relationship between them. The research questions of the study posed accordingly:

1. What vocabulary learning strategies do the undergraduate ELT students at EMU report to use with respect to the year of studies?

2. What is the vocabulary size of the undergraduate ELT students at EMU with respect to the year of studies?

3. How does vocabulary size of the undergraduate ELT students at EMU relate to their reported vocabulary learning strategies use?

5. Method

This research study was a correlational survey study of descriptive nature. The study was carried out with the undergraduate students at the Department of ELT of Education Faculty of Eastern Mediterranean University in North Cyprus. The majority of the participants 69 (55.2%) were from the Republic of Turkey (TR). The other participants of the study 50 (40%) were from the Turkish Republic of Northern Cyprus (TRNC), and from various other countries 6 (4.8%), respectively. The majority of the participants were female 91 (72.8%), whereas the number of the male participants was 34 (27.2%). The age range of the participants was between 18 and 29. Finally Table 1 presents the distribution of participants' year of studies in detail.

5.1 Data Collection Instrument

Two instruments were used for collecting data in this research study: A vocabulary learning strategy questionnaire and A Vocabulary Levels Test. A 6-point Likert Scale VLS questionnaire which consisted of two parts was adapted from Kudo's study (1999). The first part of the questionnaire was background information part which was intended to collect data on demographic variables such as age and sex of the participants while the second part was intended to collect data on VLS use of the participants. In the second part of the questionnaire, the participants were asked to report on the frequency of the VLS use in learning English language vocabulary. The total number of individual items assessing the two VLSs was 44. The internal reliabilities (Cronbach-α) for the VLS questionnaire, the psycholinguistic strategy, and the metacognitive strategy were slightly higher than 90%.

The other instrument which was utilized in this research study was the first version of Schmitt's (2000) VLT consisting of five sub-tests, specifically, a 2,000-word level, 3,000-word level, 5,000-word level, 10,000-word level, and Academic-word level tests, respectively. At each level, there are 30 vocabulary items in groups of 10, and for each group. There are 6 answer options, 3 of each being distracters. The participants of this study were required to choose one answer option for each vocabulary item. The Cronbach-α reliability coefficient for the VLT questionnaire was estimated to be 0.96 in this present study, which can be considered very high.

5.2 Data Analysis Procedure

Upon data collection, the completed VLS questionnaire and the VLT of each participant of the research study were checked for identification prior to entering the data onto Statistical Package for the Social Sciences software (version 17). To answer the first and second research questions, descriptive statistics (minimum, maximum, mean, and standard deviation) were determined for the participants. The minimum cut-off point for satisfactory vocabulary size at each word level and VLT was set to 60% in order to determine the vocabulary size of the participants. To answer the third research question, the Pearson product-moment correlation coefficients between the data from VLS questionnaire, the psycholinguistic strategy and metacognitive strategy (dependent variables) and the vocabulary levels test (independent variable).

6. Discussion of Results and Findings

6.1 Vocabulary Learning Strategies of the ELT Students

The results of the analysis of the ELT students' questionnaire reports on vocabulary learning strategies (VLS) use are presented in Table 2. As the table illustrates, the psycholinguistic strategies were reportedly frequently used by the participants (mean = 3.68, SD = .717), whereas the metacognitive strategies were reportedly used somewhat frequently (mean = 3.56, SD = .724), the overall reported frequency mean of VLS use on the part of the respondents

being somewhat high (mean = 3.62, SD = .664). The standard deviations for the psycholinguistic and metacognitive strategies were small, therefore, insignificant. Thus, regarding the first research question, the statistical results suggested that the undergraduate ELT students reportedly operated the VLS frequently.

Table 3 presents VLS use of the participants in terms of the year of the undergraduate studies. As the table illustrates, the second year ELT students (mean = 3.78, SD = .678) and the fourth year students (mean = 3.64, SD = 0.548) reportedly used VLS highly frequently, whereas the third year students (mean = 3.55, SD = .659) somewhat frequently, and the first year students (mean = 3.46, SD = .729) infrequently. Regarding the psycholinguistic category, the fourth, second and third year undergraduates reportedly operated the related strategies frequently (mean = 3.85, SD = .641; mean = 3.81, SD = .693; mean = 3.65, SD = .702, respectively), whereas the first year students reportedly operated these strategies infrequently (mean = 3.39, SD = .771). As regards the metacognitive category, the second year and first year respondents reportedly employed the related strategies frequently and somewhat frequently (mean = 3.76, SD = .745; mean = 3.54, SD = .759), whereas the third and fourth year respondents reportedly employed these strategies infrequently (mean = 3.46, SD = .760; mean = 3.43, SD = .548, respectively). It should be noted that the small standard deviations across the strategies were not significantly different from one another. Thus, the ELT participants across four years of studies used both psycholinguistic and metacognitive strategies, however, with different frequency, the second year students being the frequent users of both categories.

The findings on VLS strategy use in this study were in line with the findings of some previous research studies. Schmitt (1997), Zarafshan (2002), Wu (2005), Lo (2007), and Sarani and Kafipour (2008) also found that the students in their studies employed psycholinguistic strategies, whereas Gu and Johnson (1996) and Şener (2009) found that the students in their studies used metacognitive strategies. Moreover, Wen and Johnson (1997), Wu and Wang (1998), Zhang (2001), and Hamzah, Kafipour, Abdullah (2009) reported that the participants in their studies employed both psycholinguistic and metacognitive strategies while learning vocabulary. Overall, the findings of the present study suggested that most of the ELT students adequately operated the psycholinguistic strategies, whereas somewhat adequately the metacognitive strategies.

6.2 Vocabulary Size of the ELT Students

The results of the ELT students' performance on the VLT are presented in Table 4. Considering the minimum cut-off point for an average vocabulary size to be 60%, the participants' results suggested an adequate size of the 2,000-word, 3,000-word, as well as an average command of the academic vocabulary. However, the students' test performance seemed to indicate an inadequate vocabulary size at the 5,000-word level, as well as the 10,000-word level, university level, the overall (mean = 57.83) suggesting a somewhat average vocabulary size of the ELT students. The standard deviations, and the minimum and maximum VLT scores for the 3,000-word level and the academic vocabulary also suggested that the participants had a slightly more heterogeneous academic vocabulary size (SD = 25.281) than the 3,000-word level (SD = 20.443) vocabulary size.

The findings of the present study, interpreted in light of the pertinent research, suggested that most of the ELT students could function effectively in English, and comprehend reading since Nation (1990) notes that all language learners need to know about 2,000-3,000 words in this regard. Further, Laufer (1997) states that the threshold vocabulary size, essential for reading comprehension, is at the 3,000-word level. However, the findings of the study seemed to indicate that the undergraduate students would have difficulties with advanced studies at the university level. Hirsh and Nation (1992) emphasize that at least 5,000 word vocabulary size is required for reading advanced, authentic, and academic texts. Moreover, in a related study (Allen, 1983) it was reported that the Dutch university students' vocabulary size was at the University level, 10,000-word level.

Table 5 presents the results of the analysis of the ELT students' performance on VLT in terms of the year of studies. As the participants' performance across four years of studies suggested, they had an adequate vocabulary size at the 2,000-word level, except for the second year students, as well as the 3,000-word level. However, the undergraduate students' performance on the vocabulary test did not seem to indicate an adequate vocabulary size at the 5,000 word-level, except for the fourth year students, as well as at the 10,000-word level, university level. As regards the academic vocabulary, the result of the participants' performance were somewhat promising in that the fourth year students reportedly had an adequate vocabulary size at this level; with the students across the first, second, and third years of undergraduate studies showing an incremental growth in this regard. Thus, regarding the second research question, overall, the ELT undergraduate students reportedly had a somewhat average vocabulary size (mean = 57.83) to cope with advanced studies at the university level.

6.3 Correlation between the Vocabulary Learning Strategies and the Vocabulary Size

Table 6 presents the correlations between the VLS and the vocabulary size of the ELT students. As the table

illustrates, the correlations between the strategies and the vocabulary size of the participants were very small (strength of the correlation) and negative (direction of the correlation). However, the correlations between the metacognitive strategy and the vocabulary size, and between the VLS questionnaire and the vocabulary size of the participants were significant at 0.01 2-tailed Alpha probability level (p $<\alpha$), whereas the correlation between the psycholinguistic strategy and the vocabulary size of the participants was non-significant at 0.05 2-tailed Alpha probability level (p $\geq \alpha$). Therefore, there was no relationship between the psycholinguistic strategy and the vocabulary size of the students. Although the relationships between the metacognitive strategy and the vocabulary size, and between the VLS questionnaire and the vocabulary size of the participants were significant, they were very weak and inverse (high values of one variable are associated with the low values of the other variables). This finding was somewhat consistent with the findings of the previous related studies. Şener (2009) found that Turkish ELT students used many different strategies to learn vocabulary; however they did not use mnemonic devices, semantic mapping, andsocial strategies of the metacognitive category. A similar finding was reported in Kudo's study (2002), in which social strategies were rarely used. Şener's correlational study revealed a positive significant correlation of the psycholinguistic strategies, metacognitive strategies, and the vocabulary size of the participants. Hamzah, Kafipour, and Abdullah (2009) demonstrated a significant positive correlation of the psycholinguistic strategies, metacognitive strategies, and the vocabulary size of the participants.

Therefore, no relationship between the psycholinguistic strategy and the vocabulary size of the male and female participants, and between the metacognitive strategy and the vocabulary size of the male participants was identified. Although the relationships between the metacognitive strategy and the vocabulary size of the female participants, and between the VLS questionnaire and the vocabulary size of the male and female participants were significant, they were very weak and inverse. Thus, regarding the third research question, this study found no relationship between the psycholinguistic strategy and the vocabulary size of the participants, and the relationships between the metacognitive strategy and the vocabulary size, as well as the VLS questionnaire and the vocabulary size of the participants were negligible. The findings of this study also revealed that the ELT students did not operate certain strategies, rather a variety of strategies.

7. Conclusion

The major findings of this study were as follows. First, the findings of the present study seemed to indicate that most of the ELT students adequately operated the psycholinguistic strategies, whereas somewhat adequately the metacognitive strategies. Next, the ELT undergraduate students reportedly had a somewhat average vocabulary size to cope with advanced studies at the university level. Finally, this study found no relationship between the psycholinguistic strategy and the vocabulary size of the participants, and the relationships between the metacognitive strategy and the vocabulary size, as well as the VLS questionnaire and the vocabulary size of the participants were negligible. The findings of this study also revealed that the ELT students did not operate certain strategies, rather a variety of strategies.

7.1 Implications for Practice

The findings of the research study suggested that it is vitally important to explore the VLS, vocabulary size, and the relationship between them. They may help students, teachers, and administrators to become aware of VLS profiles, vocabulary knowledge, and competency in order to design and deliver vocabulary instruction and training accordingly. Nation (2001) notes that strategy training has been proved to be very useful in broadening students' strategic knowledge. In addition to raising students' awareness of the different ways of managing their vocabulary studies, they should be informed about the effective exploration of their strategies.

In addition, students can be trained to make informed decisions of strategy choice on different learning occasions, especially in the case of less successful students. There is no doubt that teachers have an important role to play in the strategy training of students. They are the ones to offer opportunities for students to learn about and practice the strategies.

The goal of strategy training is to promote learner autonomy. In order to achieve this goal, teachers require knowledge of comprehensive strategy repertoire to train their student both for instructional context and independent study. Since students may find it difficult to improve their strategic competence and sometimes resist strategy training (Brown, 2002), it is, therefore, essential to help learners to become aware of their own styles, preferences and habits, for practising their effective strategies, get them to practise good strategies, and take charge of their own learning.

7.2 Suggestions for Further Research

It is recommended that future research should take into consideration qualitative data collection to triangulate the

data. It may show whether the students reported responses in the questionnaire are consistent with what they actually do. To achieve this purpose qualitative data collection technique such as journal writing, diaries, and classroom observations might be undertaken.

Furthermore, other relevant variables can be examined to find out if they VLS are mediated by them or not. One of these variables which is expected to be affected by VLS is reading comprehension. Theoretically, schema theory shows a relationship between reading comprehension and VLS. As for further research a few directions are suggested as follows:

• Do learners' personality traits affect the relationship between VLS and vocabulary teaching strategies? It is believed that a number of factors affect the use of learning strategies (e.g. gender, proficiency level, achievement, etc.). It seems safe to assume that taking these variables into consideration would affect the research results.

• Do VLS develop parallel with cognitive and linguistic development is the choices of VLS influenced by the degree of cognitive and linguistic development or are VLS affected by the phenomenon that can be referred to as fossilisation of learning strategies? Without a longitudinal research design it is not feasible to find answer to these questions.

• Does the vocabulary assessment process influence the use and the development of VLS?

It is hoped that research be constantly undertaken to shed further light on enquiries about matter related to VLS. This is the only possible path to gain better insight into the complex processes of vocabulary instruction, and ultimately into foreign language lexical development.

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Table 1. The Distribution of Participants' Year of Studies

	Frequency	Percent	Cumulative Percent
First Year	28	22.4	22.4
Second Year	36	28.8	51.2
Third Year	36	28.8	80.0
Fourth Year	25	20.0	100.0
Total	125	100.0	

Table 2. Vocabulary Learning Strategies of the Participants

	N	Min.	Max.	Mean	SD
Psycholinguistic Strategy	125	2	6	3.68	.717
Metacognitive Strategy	125	2	5	3.56	.724
VLS Questionnaire	125	2	5	3.62	.664

Table 3. Vocabulary Learning Strategies of the Participants with Respect to Year of Studies

		N	Min.	Max.	Mean	SD
First Year	Psycholinguistic Strategy	28	2	5	3.39	.771
	Metacognitive Strategy	28	2	5	3.54	.759
	VLS Questionnaire	28	2	5	3.46	.729
Second Year	Psycholinguistic Strategy	36	2	5	3.81	.693
	Metacognitive Strategy	36	2	5	3.76	.745
	VLS Questionnaire	36	2	5	3.78	.678
Third Year	Psycholinguistic Strategy	36	2	5	3.65	.702
	Metacognitive Strategy	36	2	5	3.46	.760
	VLS Questionnaire	36	2	5	3.55	.659
Fourth Year	Psycholinguistic Strategy	25	3	6	3.85	.641
	Metacognitive Strategy	25	2	5	3.43	.562
	VLS Questionnaire	25	3	5	3.64	.548

Table 4. Vocabulary Size of the Participants

	N	Min.	Max.	Mean	SD
The 2000-Word Level (%)	125	43	100	83.33	12.608
The 3000-Word Level (%)	125	3	100	65.81	20.443
The 5000-Word Level (%)	125	13	97	54.43	20.794
The 10000-Word Level (%)	125	0	90	24.53	16.829
Academic Vocabulary (%)	125	0	100	61.04	25.281
VLT (%)	125	23	97	57.83	15.937

Table 5. Vocabulary Size of the Participants with Respect to Year of Studies

		N	Min	Max.	Mean	SD
First Year	The 2000-Word Level (%)	28	57	100	86.19	12.692
	The 3000-Word Level (%)	28	3	100	71.55	23.333
	The 5000-Word Level (%)	28	20	97	58.81	21.203
	The 10000-Word Level (%)	28	0	63	24.88	16.617
	Academic Vocabulary (%)	28	0	97	53.81	28.913
	VLT (%)	28	26	91	59.05	17.119
Second Year	The 2000-Word Level (%)	36	50	100	80.83	10.849
	The 3000-Word Level (%)	36	23	100	57.69	18.803
	The 5000-Word Level (%)	36	17	97	47.04	20.296
	The 10000-Word Level (%)	36	0	90	24.35	19.774
	Academic Vocabulary (%)	36	0	100	58.89	22.495
	VLT (%)	36	31	97	53.76	15.115
Third Year	The 2000-Word Level (%)	36	60	100	84.63	10.398
	The 3000-Word Level (%)	36	13	100	65.56	17.746
	The 5000-Word Level (%)	36	13	87	53.52	20.220
	The 10000-Word Level (%)	36	0	77	21.02	15.611
	Academic Vocabulary (%)	36	0	93	61.48	26.838
	VLT (%)	36	23	89	57.24	15.224
Fourth Year	The 2000-Word Level (%)	25	43	100	81.87	16.944
	The 3000-Word Level (%)	25	30	100	71.47	20.025
	The 5000-Word Level (%)	25	20	93	61.47	19.343
	The 10000-Word Level (%)	25	3	53	29.47	13.529
	Academic Vocabulary (%)	25	20	93	71.60	19.723
	VLT (%)	25	29	85	63.17	15.955

Table 6. Correlations between the VLS and Vocabulary Size of the ELT Students

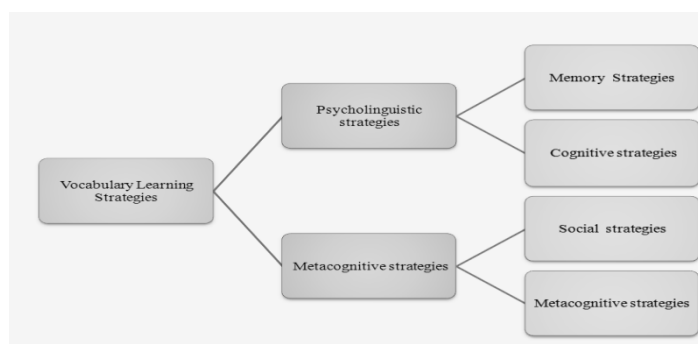|	Pearson Correlation	Sig. (2-tailed)
Psycholinguistic strategies VLT	-.161	.073
Metacognitive strategies VLT	-.324[**]	.000
VLS Questionnaire VLT	-.264[**]	.003

Figure 1. Kudo's Taxonomy of VLS