Vocabulary Learning Strategy Preferences and Vocabulary Size of Pre-service English Teachers

(Hizmet Öncesi İngilizce Öğretmenlerinin Kelime Öğrenme Strateji
Tercihi ve Kelime Boyutları)

Sabriye Şener[1]

Abstract

The present study examined the vocabulary learning strategy preferences and vocabulary size of pre-service English teachers at a state university in Turkey. It also investigated the relationship between their strategy use and vocabulary size. To this end, 304 pre-service teachers constituted the working group of the research. In this study, a quantitative research design was employed. For data collection, an adapted version of the Vocabulary Learning Strategy Inventory and Vocabulary Levels Test were used. The most frequently used vocabulary learning strategy sub-group was found to be determination and the lowest vocabulary learning strategy sub-group was cognitive. Besides, the most significant relationship was seen between the vocabulary size and cognitive strategies. Finally, multiple comparison tests revealed a significant statistical difference between the first and fourth graders' vocabulary size.

Keywords: Word level, vocabulary learning strategies, vocabulary size.

Özet

Bu çalışma Türkiye'de bir devlet üniversitesindeki hizmet öncesi İngilizce öğretmenlerinin kelime öğrenme strateji tercihlerini ve kelime boyutlarını incelemiştir. Çalışma aynı zamanda strateji kullanımı ve kelime boyutu arasındaki ilişkiyi de araştırmıştır. Bu amaçla, 304 hizmet öncesi İngilizce öğretmeni araştırmanın çalışma grubunu teşkil etmiştir. Çalışmada nicel araştırma tasarımı kullanılmıştır. Verileri toplamada uyarlanmış Kelime Öğrenme Strateji Envanteri ve Kelime Seviye Testleri kullanılmıştır. Envanterin kelime öğrenme strateji alt grubu olarak belirleme stratejilerinin en sık kullanılan ve bilişsel strateji grubunun da en az sıklıkla kullanılan strateji grubu olduğu saptanmıştır. Ayrıca, kelime öğrenme stratejileri ile kelime boyutu arasında anlamlı ilişki bulunmuştur. Son olarak, çoklu karşılaştırma testleri birinci ve dördüncü sınıf öğrencilerinin kelime boyutları arasında anlamlı istatistiksel farklılıklar ortaya çıkarmıştır.

Anahtar kelimeler: kelime seviyesi, kelime öğrenme stratejileri, kelime boyutu.

[1] Muğla Sıtkı Koçman University, Faculty of Education English Language Teaching Department, MUĞLA
Email: sabriyesener@mu.edu.tr

Introduction

Vocabulary refers to the words used in a language. It can be defined as the words of a language, including single items and phrases or chunks of several words which covey a particular meaning, the way individual words do. Merriam-Webster defines it as "a sum or stock of words employed by a language, group, individual, or work or in a field of knowledge".

As Zimmerman (1998, p. 5) stated "vocabulary is central to language and of critical importance to the typical language learner". It is true that without sufficient vocabulary one cannot understand others or express his/her own ideas. In fact language emerges first as words, both historically, and in terms of the way each of us learned our first and subsequent languages if any. Whenever necessary, new words are coined and of course acquired by learners of a language. Even in our mother tongue, there is a continuous learning of new words and new meanings for old words (Thornbury, 2002). Thornbury is certainly right when he reports David Wilkins' famous saying that "without grammar, very little can be conveyed, without vocabulary nothing can be conveyed." And these words sum up the importance of vocabulary very well (p. 13).

It's Read's (2000) assertion that many learners see second language acquisition as essentially a matter of learning vocabulary, so they devote a great deal of time to memorizing lists of L2 words and rely on their bilingual dictionary as a basic communicative recourse. According to Read: "Words are the basic building blocks of language, the units of meaning from which the larger structures such as sentences paragraphs and whole texts are formed" (p.1). He asserts that for learners, "the acquisition of vocabulary is typically a more conscious and demanding process". It's his claim that even at an advanced level, learners are aware of limitations in their knowledge of second language (or L2) words. Read further draws attention to the importance of vocabulary by bringing evidence from the findings of the researchers that vocabulary knowledge is what the students most need while doing reading activities in order to make sense of what they are reading. Moreover, it's his claim that those who are below the threshold (those who do not possess enough vocabulary in their minds) cannot understand enough of what they read. Furthermore, they have more limited contextual information provided by known words to allow them to guess the meaning of unfamiliar words. While stating the role of knowing more words in listening, Read argues that lack of vocabulary knowledge is the main obstacle to successful listening comprehension for advanced language learners" (p. 190).

However, vocabulary learning and teaching have been neglected for years. Richards and Renandya (2002) draw attention to the fact that vocabulary education was given little priority in second language programs and traditionally vocabulary learning was often left to look after itself and received almost no attention in many textbooks and language programs. Similarly, Hedge (2001) states this fact that vocabulary issue has been neglected.

Some people may hold the wrong view that the grammatical system of a language is more important than its vocabulary. However, it may just be the opposite. As Thornbury (2002, p.160) points out, "It may be the case that mastery of the grammar system depends on

there being a critical mass of vocabulary to work with". After stating the importance of vocabulary with this sentence, Thornbury warns teachers not to fear that they are wasting their time teaching vocabulary.

Recently, it has always been a source of interest for the teachers to know how learners learn vocabulary. As long as we know more about the strategies used successfully by the learners; what works best and what does not work well, we can help learners acquire more profitable strategies (Hatch and Brown, 1998). Thornbury reports that some people considered being the leading authority in language learning some years ago claimed that vocabulary could not be taught. They said:

"It can be presented, explained, included in all kinds of activities, and experienced in all manners of associations… but ultimately it is learned by the individual. As language teachers, we must arouse interest in words and a certain excitement in personal development in this area… We can help our students by giving ideas on how to learn, but each will finally learn a very personal selection of items, organized into relationships in an individual way (Thornbury 2002, p.144).

As for the vocabulary size of the learners, Nation (2001), while planning the vocabulary goals of a long-term course of study, suggests that we can take into consideration three kinds of information to help decide how much vocabulary needs to be learned: "the number of words in the language, the number of words known by native speakers and the number of words needed to use the language" (p.6). Nation also points out that a learner's vocabulary size is important for successful guessing of words in a context too, because this will affect the density of unknown words in a text.

According to Read (2000), the term 'vocabulary size' refers to the number of words that a person knows. In fact, Read's description of 'vocabulary size' is the most common one in the language learning literature. However, it has always been a source of interest to know if there is a language knowledge threshold which according to Nation marks the boundary between not having and having enough language knowledge for successful language use.

How many words do we need to know? A good answer to this question comes from King (2000). He says that we need a vocabulary sufficient to express ourselves clearly and confidently, and a vocabulary which enables us to understand any communication – from holiday brochures to tax forms, magazines to novels – with ease and enjoyment. According to Lewis (1994), an effective and balanced vocabulary should involve knowledge of a sufficient number of verbs (with their collocations), adverbs and adjectives. Studies of native speakers' vocabulary seem to suggest that second language learners need to know very large numbers of words because they consider every word of being equal value to the learner. However, frequency based studies show that it is not so and some words are much more useful to the learners than some others (Nation 2001).

There are several reasons for vocabulary testing. The most important reason Thornbury (2002) points out is to determine a learner's readiness to sit a public exam when the number of words one knows may be crucial. It is estimated that a recognition vocabulary of at least 4500 words is necessary for the Cambridge First Certificate Examination.

Vocabulary tests can be divided into tests of recognition or production. Vocabulary tests can also be grouped according to whether words are tested out of context or in context. Finally, vocabulary knowledge can be assessed qualitatively – by using assessment scales, for example – or quantitatively – by doing word counts to test for lexical density, for example, (Thornbury, 2002).

According to Nation (1990), the first question to ask when testing vocabulary is "do we want to test recognition or recall of vocabulary?" He further explains that in recall tests, the researchers are interested in the learner's producing the word; and in recognition tests they are interested in finding if the learners know the meaning of a word after they hear or see it.

As far as measuring the vocabulary size is concerned, Read (2000) holds the view that the researchers should not attempt to measure vocabulary size in an absolute sense, but rather in relation with particular contexts of use. Read puts forward that the researchers have usually attempted to measure the total size of native speakers by "taking a sample of words from a large unabridged dictionary" (pp. 31-32). Read also adds that in some testing situations, it will be appropriate to ask the learners to assess their own lexical knowledge.

On the other hand, Nation (2001) suggests two major methods of measuring vocabulary size. One of these methods is based on sampling from a dictionary and the other is based on a corpus or a frequency list derived from a corpus. The dictionary-based method involves choosing a dictionary that is large enough to contain all the words that learners might know. A representative sample of words is taken from the dictionary and the learners are tested on those words. The proportion of words known in the sample is then converted to the proportion likely to be known in the whole dictionary. The corpus-based method, on the other hand, can be applied in two ways. One way is to collect a corpus of language used by a person or group of people and see how many words it consists of. This will not give a measure of total vocabulary size because any corpus is likely to represent only part of a language user's vocabulary In this method, the vocabulary units are arranged into frequency based groups, the most frequent 1000 words, the second frequent 1000 words etc. and a sample of words is taken from each frequency group.

Nation (2001) further states that there are several ways of measuring the productive, written vocabulary of a language learner. The first one of these ways is to measure it directly and overtly using a discrete point vocabulary test. A second way to measure vocabulary size and growth in written work is to analyse the vocabulary of learners' written compositions. Finally, the third way of measuring vocabulary is using a rating scale that focuses on vocabulary.

In order to increase the vocabulary size of the foreign language learners, it is important to help their vocabulary development by introducing them a number of strategies. It's also worth mentioning here that strategies should be indispensable parts of vocabulary learning and teaching. Oxford (1990, p. 1) claims that strategies are: "tools for active, self-directed involvement, which is essential for developing communicative competence. Appropriate language learning strategies result in improved proficiency and greater self-confidence"

According to Lewis (2001), the best use of class time is to maximize the likelihood of

learners turning input into intake. He explains that this means class time is better spent helping learners develop strategies for dealing with unknown items learners meet during listening or reading activities, particularly "the ability to guess on the basis of context, situation or lexical clues, rather than laborious practice aimed at consolidating individual items" (p.47). Similarly, Hedge (2001, p. 126) claims that "building on what we know of the strategies used by good learners for vocabulary acquisition, it is possible to involve students in activities which help them to develop new strategies as well as strengthen existing ones"

The strategy studies in general show that there is value in being able to use a wide range of strategies and that most of the learners are restricted to too narrow a range. Accordingly, Nation claims that "strategy training seems to have a very useful role in second language vocabulary development" (p. 229). Research on successful and unsuccessful learners show that successful language learners have developed a variety of strategies from which they select the most appropriate ones for a particular problem and adapt them flexibly for a specific need (Williams and Burden, 1999). Most of the studies about strategies suggest that higher-proficiency or lower-proficiency learners use more or fewer strategies than the other group –usually indicating that the better learners use more strategies but sometimes it's just the opposite (Cohen, 1999). Another thing the research suggests is that the lower-proficiency learners may go on trying various strategies without comparable success, and as a result, they end up using more strategies altogether. According to Cohen, the most logical interpretation of this result is that:

"The total number and variety of strategies employed and the frequency with which any given strategy is used are not necessarily indicators of how successful they will be on a language task. Whereas the successful completion of some tasks may require the use of a variety of strategies used repeatedly, the successful completion of others may depend on the use of just a few strategies, each used only once but successfully" (pp. 8-9).

Vocabulary learning strategies are those strategies that language learners use while dealing with new vocabulary items. Vocabulary learning strategies are in relation with other language learning strategies. There are of course many strategies discussed by some of the researchers in this field. The most common of these strategies are as follows:

Paraphrase: using *a dog's house* for a *kennel*; or *a thing you dry your hands on* for a *towel*.

Language switch: when the learner uses an L1 word to substitute for an unknown L2 one.

Use of subordinate terms: when the learner uses a more general term in place of a specific one, as in *tool* for *hammer*.

Appeal to authority: asking *how do you say 'staple' in French?*

(Read 2000, p. 34)

According to Thornbury (2002), guessing the meaning of unknown words from context is a strategy that helps learners cope during reading and listening activities. Thornbury names such strategies 'Coping strategies for production' and he lists a number of similar

strategies such as paraphrasing and miming.

Hedge (2001) uses the term 'operating strategies' and defines them as 'strategies like paying attention to the ends of words, to formulate hypotheses about rules in the language, testing these hypotheses to produce language and revising them according to the feedback'. Nation (2001) also makes an explanation of dictionary use strategies and says that there are mainly three purposes for dictionary use. These are comprehension (decoding), production (encoding), and learning.

Researchers have not yet reached a consensus on how vocabulary learning strategies fit in existing strategy taxonomies or developed a well-established taxonomy accepted by workers in the field (Schmitt, 1997, cited in Erten, 2000). Nation states that vocabulary learning strategies may have different characteristics and require different categorization systems. Like Nation, Schmitt (1997) believes that it might be fruitful to consider where general learning strategies and those for vocabulary learning "intersect" and differ from each other.

So far, various vocabulary learning strategy taxonomies were used in different studies (Gu & Johnson, 1996; Nation, 2001; Schmitt, 1997). Gu and Johnson's (1996) developed a taxonomy with two dimensions; metacognitive and cognitive strategies, which has six subcategories: guessing strategies, dictionary strategies, note-taking strategies, rehearsal strategies, encoding strategies and activating strategies, and investigated the use of vocabulary learning strategies of 850 Chinese learners of English who were second year university students. They also focused on the interaction between strategy use, vocabulary size and English proficiency. Analysis of the data revealed that most of the Chinese students believed that vocabulary should be carefully studied and used. They also believed in the importance of the context rather than the pure memorization of the words. Finally, their subjects reported strategies for regulating their learning, guessing, dictionary work, and note taking as some of the most frequently used strategies.

Nation (2001) stated that vocabulary learning strategies may have different characteristics and require different categorization systems. In his taxonomy, he divided strategies into three general classes of 'planning', 'source' and 'processes'. The first category, planning, includes choosing words, choosing aspects of word knowledge and choosing strategies as well as planning repetition. The second category, source, involves getting information about the word. This information may include all the aspects involved in knowing a word. The third category, processes, includes establishing word knowledge through noticing, retrieving and generating strategies.

In1997, Schmitt organized his taxonomy according to both Oxford's (1990) classification and the Discovery/Consolidation distinction. In Schmitt's Taxonomy, there are two broad initial groups of vocabulary learning strategies, namely 'strategies for the discovery of a new word's meaning', and 'strategies for consolidating a word once it has been encountered'. Moreover, the taxonomy involves a secondary layer. Strategies in the discovery and consolidation groups are further classified as social, memory, and cognitive and metacognitive strategies. He also adds 'determination strategies' as a new group. Figure 1 represents the categorization in Schmitt's (1997) taxonomy.
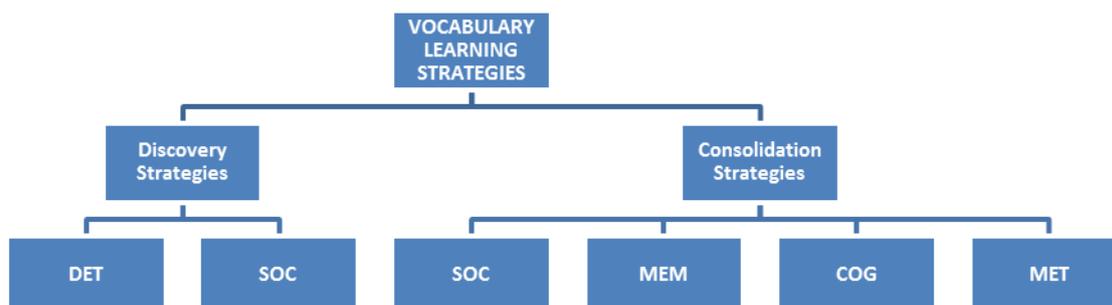
Figure 1: Schmitt's (1997) Taxonomy of Vocabulary Learning Strategies

DET: Determination Strategies; SOC: Social Strategies; MEM: Memory Strategies; COG: Cognitive Strategies; MET: Meta-cognitive Strategies

The group of discovery strategies includes determination (such as analysing part of speech, affixes and roots) and social strategies (such as asking teacher for an L1 translation). On the other hand, the group of Consolidation strategies includes social, memory, cognitive, and meta-cognitive strategies. Schmitt (1993) defined each category as follows:

Determination strategies are used "when faced with discovering a new word's meaning without recourse to another person's expertise." Social strategies are used to understand a word "by asking someone who knows it." Memory strategies are "approaches which relate new materials to existing knowledge". The definition of cognitive strategies was adopted from Oxford (1990, p. 206) as "manipulation or transformation of the target language by the learner". Metacognitive strategies are defined as "a conscious overview of the learning process and making decisions about planning, monitoring, or evaluating the best ways to study".

Various researchers have examined the effectiveness of the whole range of vocabulary learning strategies: Sanaoui (1995) in her diary study focused on the approaches of language learners to vocabulary learning. She identified two major approaches of language learners to vocabulary learning, which she named 'structured' and 'unstructured' approaches to vocabulary learning. The main distinction between the two groups was that while the first group developed a system for dealing with vocabulary study, the latter group did not seem to have the intention to regulate their learning. They actually dealt with the words as they came (without a regular system).

Schmitt (1997) investigated in his study the use and perceived effectiveness of strategies by using many strategies together. He asked a total of 600 Japanese junior and senior high school students, university students, and company employees whether they used the strategies or not and whether they were useful. The results showed that a bilingual dictionary was most popular. Other popular strategies were 'verbal repetition', 'written repetition' and 'studying the spelling of the word'. In contrast, strategies such as "the use of physical action, L1 cognates and semantic maps" were least commonly used. The participants were also asked to rate the five most helpful strategies and similar results were observed. Strategies perceived as less helpful were "imaging a word's meaning, using cognates, imagining word form, skipping or passing a new word and the Keyword Method". Another interesting finding was the change of strategy use. As the participants became older or more

proficient in the target language, the patterns of strategy use changed. The same trend was observed in their perceptions of strategy helpfulness. Schmitt commented "some learning strategies are more beneficial at certain ages than others". Schmitt is careful about generalization of these results. He stated that "strategies may be culture-specific; the same findings may not be observed with people from different L1 backgrounds".

Believing in the importance of strategy use in vocabulary learning, researchers also focused on vocabulary learning strategy training. Aktekin and Güven (2013) examined the effectiveness of strategy instruction in vocabulary learning by employing 70 non-major university students. Their research findings indicated that vocabulary strategy training can help students to learn and store more vocabulary. The participants believed that the strategy training they got in Preparatory School enabled them to use some strategies and/or help them realize the existence of strategy use. They also suggested that strategy instruction would be given to all students during their language education in the first year and if possible it should continue during their education in later years in their departments.

More recent studies concentrated on identifying the vocabulary learning strategies use of the students and the relationship between vocabulary strategy use and vocabulary size (Askar, 2013; Tanyer and Öztürk, 2014). In their study, Tanyer and Öztürk revealed that participants were quite autonomous in learning vocabulary. They found out that guessing from textual context, connecting word to a personal experience, analyzing any available pictures or gestures were the most frequently used strategies. Whereas, the least frequently used vocabulary learning strategies were asking someone to check flashcards or word lists for accuracy, flashcards, and listening to tape/CD etc. of word lists. They also showed that among different strategy categories determination strategies received the highest score and they were also found to be statistically significant compared to all the other four categories in the taxonomy. The least frequently used strategies were social strategies, which was consistent with the results of some previous studies (Şener, 2003). Regarding the relationship between the participants" vocabulary size and vocabulary learning strategy use, the results revealed that vocabulary learning strategy use significantly explain the variation in vocabulary size.

Askar (2013) examined the use of vocabulary learning strategies of university students studying at Duhok University in Northern Iraq. The researcher both aimed to examine and compare the vocabulary learning strategies employed by the ELT and ELL students and the impact of gender and grade levels on the use of learning strategies. The results of the revealed that Duhok university students were medium strategy users and the most popular strategies among the learners compared to other strategies were the cognitive strategies. Social strategies were found to be the least preferred strategies. In terms of individual strategies, "using internet" "taking notes in class" and "use a bilingual dictionary" strategies were the most preferred strategies among students.

Baharudin and Zawawi (2014) in their study explored the relationship between vocabulary learning strategies and Arabic vocabulary size of High School students by employing Schmitt's (1997) vocabulary learning strategies questionnaire. It was indicated that the most frequently used learning strategy category was the determination strategy group and this was followed by Social strategies. The findings also revealed that there was a relationship

between the use of vocabulary learning strategies and Arabic vocabulary size in the study.

Although vocabulary 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. Similarly, Richards and Renandya (2002) draw attention to the fact that vocabulary education was given little priority in second language programs and traditionally vocabulary learning was often left to look after itself and received almost no attention in many textbooks and language programs. They, however, point out that there has recently been a new interest in the nature of vocabulary and its role in language learning and teaching. They also add that the status of vocabulary is now changing and words are considered indispensable for communication especially in the initial stages of learning. Furthermore, Vocabulary is now seen as a core component of language proficiency too.

In conclusion, considering the importance of vocabulary in human communication, and respecting the views of prominent researchers in the field mention above, it is believed that special emphasis should be given to the teaching of lexical items. It is not easy for learners to get the meanings of vocabulary items and keep them in memory. Therefore, some vocabulary learning strategies will help learners discover the meaning and keep them in mind more than some other strategies. The present study investigates the vocabulary learning strategies preferred by English-major students. It is assumed that this study will contribute to the field by determining more effective strategies which will improve the amount of vocabulary size of the students. It is hoped that this study will also reveal the strategies that are not used by the learners attending different classes. Although there are many studies in the field, this study will reveal vocabulary learning strategies of Turkish EFL students and the relationship of these strategies with the amount of vocabulary they know and this will give us a chance of studying different relations in a different context.

Methodology

Research Design and Aim

The study employed a quantitative research design during the data collection and analysis phases and was conducted through survey methodology. The research paper presented here is a part of a larger study on the relationship between vocabulary learning strategies and vocabulary size of Turkish EFL students (Şener, 2003). The main objective of this study is to determine vocabulary learning strategy preferences of English-major university students. It also aims at investigating the relationship between the use of strategies and the vocabulary size of the students. To this end, the research questions posed to reveal strategy preferences of the participants are as follow:

RQ1. What are the most and the least frequently used strategy categories by ELT pre-service teachers?

RQ2. What is the vocabulary size of different groups?

RQ3. What is the relationship between the vocabulary learning strategies and vocabulary size of the students?

RQ4. What are the differences in the use of strategies of the 1st and 4th classes?

Setting and Participants of the Study

The main study was conducted at a state university, ELT Department in the Spring Term of 2002-2003 academic year. 304 students, ranging in age from 17 to 21, with the mean age 19.8, participated in the study. They consisted of 69 males and 235 females. By the time of the study, these subjects had 6-8 years of English learning experience at different types of secondary and high schools. All the participants had to accomplish the exemption test before they were admitted to the first year of the university. To see the vocabulary size differences, all the classes were included in the study, so purposive sampling strategy was preferred. The distribution of the participants according to classes can be seen in the table below:

Table1

Distribution of the participants according to classes

Class	Number	Percentage
1st year	80	26.0
2nd year	106	34.9
3rd year	64	21.4
4th year	54	17.7
Total	304	100.0

Instruments and Data Collection Procedures

The materials used in this study consist of the Vocabulary Levels Test designed by (Nation 2001) and an adopted version of the Vocabulary Learning Strategies Questionnaire (VLSQ) designed by Schmitt and McCarthy (1997). As Mackey and Gas (2005) stated, "...survey in the form of a questionnaires one of the most common methods of collecting data on attitudes and opinions from a large group of participants" (p. 92).

Nation's (2001) Vocabulary Levels Test, was used to measure the English Language vocabulary size of the participants since it is considered to be the only test which is close to being a standard test in vocabulary (Gorevanova 2000). Nation's Vocabulary Levels Test is a measure of receptive knowledge and is not supposed to measure students' deep knowledge of vocabulary. In his Vocabulary Levels Test, Nation states that five levels were chosen for testing the 2nd 1000 word level, 3rd 1000 word level, 5th 1000 word level, Academic word level, and 10th.000 word level. The first 1000 word level was not chosen because it was not possible to provide the meanings of these words using more frequent words.

A representative sample of 60 words was taken from each of the five levels. Each section of the test consists of six words and three definitions. Because the words were a representative sample, a learner's score at each level represents the proportion of all the words known at that level. So, if a learner scores 15 out of 30 on the 2nd 1000 level, that means that 50% or 500 out of 1000 words are known at that level.

The most frequent 2000 word families of English provide 80% to 95% of a text depending on what kind of a text it is. The 3000 word level contains the second most frequently used word families. The 5000 word level is on the boundary of high and low-

frequency words. The 10000 word level contains low-frequency words. The 570 word families of the academic word list can provide an additional 4% coverage of newspapers and 8.5% to 10% coverage of academic text.

In the test, the participants had to choose three words in each block of six and the other three in the block were distracters. There are 36 words representing the 570 word families in the Academic Word Level and 30 words representing 1000 word families in the other four levels. The sum of the words that are matched in all the levels is 156. In order to interpret the results, the researcher looked at the score for each level in terms of the total words known at the level. She also calculated the total vocabulary size at 5 levels of the participants by using the interpretation of Nation (2002) and the result was similar.

The (VLSQ) consisted of two parts: In Part A, 11 questions were asked to obtain bio-data concerning participants such as; age, gender, length of study, type of school, etc. Part B consisted of 58 questions relating to the strategies that the participants may have used. The strategies were divided into two groups: discovery and consolidation strategies. The former includes determination and social strategies, and the latter includes social, memory, cognitive and metacognitive strategies. The detailed description of each category was given in Schmitt's Taxonomy in the introduction part of this paper. In the discovery section, the determination category had 9 items, the social category had 5 items, and in the consolidation section the social category had 1 item, the memory category had 23 items, the cognitive category had 12 items, the metacognitive category had 8 items and thus a total of 58 items was presented to the participants. The questionnaire had 2 check items. In the questionnaire, the language of which was Turkish, the participants were asked to rate each statement on a 5-point scale ranging from "Never (1) to Always (5)". The scale "never" was important to distinguish because one of the research objectives was to know whether the participants used a certain strategy or not and how often. The most prominent limitation of Schmitt's taxonomy is that he does not seem to include any meta-cognitive strategies for word meaning discovery. Another important point is that Schmitt warns that the taxonomy should be taken as a working taxonomy rather than as a comprehensive list. This is especially evident in the fact that a popular memory strategy (associating some physical sensation to the word) is not a part of the list (Erten, 1998).

As for the data collection procedure, firstly, the participants were required to fill out the Background Questionnaire and the Vocabulary Strategy Questionnaire. Then, the revised versions of Nation's Word Levels Test was given to measure the participants' English Language vocabulary size. Each of the 2000, 3000, 5000 and 10000 thousand Word Level Tests had 30 definitions and the Academic Vocabulary Test had 36 definitions. The participants got one point for each correct answer and the maximum possible score a participant could get was 156 points. The participants responded the questions during the class time.

Analysis and Discussions

The Vocabulary Levels Test had 156 items to be evaluated. "1 point" was given for each correct answer. Lists of participants attending different classes were prepared and their scores were added to the list. Then the questionnaire of each participant was given the same

number as in the Vocabulary Levels Test and then in order to perform statistical analysis the strategy coding were transferred to the SPSS 9.1 programme. There were different analyses to be obtained for the study.

All the data obtained by the help of the mentioned instruments were analysed by means of descriptive statistics, T Test, ANOVA and Reali Alpha-Cranbah within the statistical Package for the Social Sciences (SPSS) 9.1, SAS (1997), and MINITAB for Windows (MINITAB Release 12.2). First, the reliability of the questionnaire statements was calculated using Cronbach Alpha. According to Özdamar (2002), the reliability of each item was high (Alpha = 0.8851).

RQ.1. What are the most and least frequently used strategy categories by ELT pre-service teachers?

In order to see the strategy choice of the participants, 58 strategy statements were grouped under five strategy columns (See Figure 2).
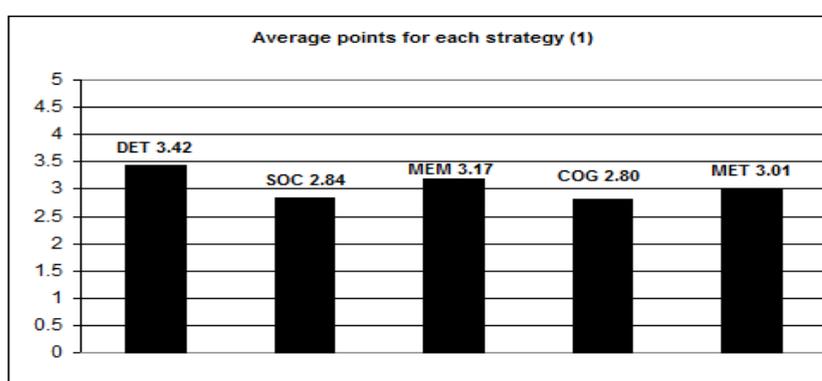

Figure 2. Average points for each strategy category

Mean of the each group was calculated within the SAS System (1997). The determination strategy column (M= 3.4221) was the most preferred group, the memory strategy column (M=17.177) got the second highest second score. The other strategies that followed were meta-cognitive (M= 3.0065) and social (M= 2.8355). The least preferred strategy group was cognitive (M=2.8045).

In the determination strategy group guessing from textual context (M= 4.0921) was the most frequently used strategy in this group. The second most preferred strategy was analysing affixes and roots (M= 3.6151) and the third highest score was for analysing any available pictures or gestures (M= 3.5789) and using cognates was the least used in this group (M= 3.0361). In the social strategy group, asking classmates for meaning (M= 3.2105) was the most preferred strategy and asking the teacher for an L1 translation (M= 2.1447) was the least used strategy. In the Memory strategy group paraphrasing (M= 3.9111) got the highest score and the use of semantic feature grids (M= 1.7631) got the least score. Furthermore, this strategy is the least preferred one of all the strategies.

As for the cognitive strategy category there is a preference on taking notes in class (M= 4.0460), and verbal repetition (M= 3.6085). In this category, keeping a diary (M= 1.875) got the least score. Taking notes in class (M= 4.0460) and Verbal repetition (M= 3.6085) received the highest scores in the cognitive strategy group. On the other hand, keeping a diary

(M= 1.825) was the least used strategy.

From the meta-cognitive category, interacting with native speakers (M= 3.9835), and using written English language (M= 3.4934) were highly preferred, whereas expanding rehearsal (M= 2.184) was the least used strategy.

To sum up the frequency of the use of strategies, the first three most preferred were guessing from textual context (M= 4.0921), taking notes in the class (M= 4.0460) and interacting with native speakers (M= 3.9835). The least preferred ones were using of semantic gesture grids (M= 1.7631), keeping a diary (M= 1.875) and reviewing flashcards (M= 1.8903).

As described above, determination strategies (M= 3.44) were most commonly used. The most frequently used strategy in this group receiving a mean of 4.0921 was guessing from textual context. This indicates that students frequently use this method. In Schmitt and McCarthy's (2001) study, this was seen as the second widespread use in Japan. 'Guessing the meaning from the context' has gained more importance in recent years. Nation (2001) states that context sentences are valuable aids in intentional, language-focused vocabulary learning. According to Thornbury (2002), guessing the meaning of unknown words from context is a strategy that helps learners cope during reading and listening activities. However, Sökmen (1992) states that these strategy does not necessarily result in long-term retention. Therefore, it is essential to teach students to use a variety of techniques apart from 'inferring from context'.

Although the use of bilingual dictionary was most frequently used strategy by Japanese learners, it received a mean of 3.4145 in this study. This is probably because of the level of the participants. The students studying at the EFL department have reached a certain level and are mostly able to guess the meaning of an unknown word from the context. A parallel result was observed in Schmitt et al. (1997).

'Paraphrasing' got the highest mean (M= 3.9079) of all the strategies in strategy group. According to Schmitt and McCarthy (2001), paraphrasing can be used both as a strategy to compensate for a limited productive vocabulary or as a memory strategy which improves recall of a word by means of the manipulation effort involved in reformulating the word's meaning. Undoubtedly, the preference of the subjects can be shaped by their previous teachers. In contrast, 'using semantic feature grids' was not only the least used memory strategy (M= 1.7631) but also the least used strategy overall. This is because English teachers do not use grids to illustrate the collocational differences between sets of similar words, so students need to be introduced to this strategy both to become more successful in the vocabulary sections of proficiency tests and to learn the association of words.

The mean of the cognitive strategy group was not high but in this group, 'taking notes in class' and 'verbal repetition' were used by most of them. Parallel findings were observed in Schmitt's (1997) Schmitt et al.'s (1997) studies. The frequent use of these strategies in this study can be attributed to the difficulty of spelling and pronunciation of English words by Turkish learners. Students are mostly encouraged by teachers to write and repeat the words many times in order to learn spelling and pronunciation of the words. When students know

certain strategies, they wish to stick with them and do not change their preference even though they later learn other strategies (Brown 2002). In this category 'keeping a diary' got the least score. This, too, can be attributed to the school system. Writing is a productive skill and is often ignored by the teachers. Some strategies can be culture oriented. The keeping of diaries is only a recent occupation of Turkish people and the vast majority have had familiarity with.

'Interacting with native speakers' was the most used strategy in the meta-cognitive group, and the third most used strategy of all the others. Interacting with native speakers whenever possible is believed to increase input and when it is used as a controlling principle of language learning, it is considered a meta-cognitive strategy (Schmitt and McCarthy 2001). Motivation means really wanting to learn English for a reason (Brown 2002). It can be assumed that when students contact with native speakers, they can be motivated and relaxed.

Social strategies were the second least used group. This result may be due to the fact that students do not know using group learning strategies and they are not used to having group work activities. Whereas the findings of Schmitt et al. (1997) reveal that Turkish students learning English in the UK regularly use social strategies such as; 'asking teacher for a sentence using the word, 'ask teacher for English paraphrase or synonym o be useful. This validates our claim about the interpretation that when Turkish learners are taught in English classes with small size of groups and are introduced to new strategies, they can see the benefit of social strategies.

RQ2. What is the vocabulary size of different groups?

In order to answer the research question, the data were analysed by Oneway ANOVA (F Test) Model. The mean of the correct answers of the first year students was 106.2250, of the second year students 103.9245, of the third year students 103.1825 and of the fourth year students 100.1667. The total score of the correct answers was supposed to be 156. The least score obtained by the participants was 53 and the highest was 147.

Table 2

Oneway ANOVA Test: Vocabulary Size of Different Groups

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min	Max
					Lower Bound	Upper Bound		
First	80	**106. 2250**	18. 3675	2. 0536	102.1375	110.3125	53.00	147.00
Second	106	103. 9245	16. 5263	1.6052	100.7418	107.1073	59.00	147.00
Third	64	103. 1875	14. 9485	1.8686	99.4535	106.9215	66.00	145.00
Fourth	54	**100. 1667**	18. 9983	2.5853	94.9811	105.3522	56.00	136.00
Total	304	103. 7072	17. 2099	.9871	101.7649	105.6496	53.00	147.00

The vocabulary size of the 1st year students was observed to be higher than the vocabulary size of the 4th year students. This was a very surprising result. In the Turkish educational system, Turkish students have to pass the university entrance examination in order to attend university. To achieve their purpose they have to spend their last year at high

school for preparation. The exam does not test productive skills so students are externally motivated to memorize new words and learn grammar. It is probable that they keep these words in their short-term memory and towards the end of their training they forget most of them. It can be said that they have given up studying systematically to learn new words after starting university. As Ur (2002) believes, only highly motivated learners can create other main conditions to be successful in L2 learning.

RQ3. What is the relationship between the vocabulary learning strategies and vocabulary size of the students?

In order to answer the research question, the data were analysed by the Pearson Correlation Test. One dependent variable (Voc size 2000) was correlated with all the independent variables (determination, social, cognitive and meta-cognitive strategies). Determination strategies revealed a positive correlation with the vocabulary size ($p < 0.05^*$). Another relation was observed between the memory strategies and vocabulary size ($p < 0.05^*$).

Table 3

Correlation among Dependent Variables and Independent Variables

		Test 2000	DET	SOS	MEM	COG	META
	Pearson Correlation	1.000	.127*	.041	.117*	**.207****	.199**
	Sig. (2-tailed)	.	.027	.481	.041	.000	.000
	N	304	304	304	304	304	304
DET	Pearson Correlation	127*	1.000	.236**	.461**	.374**	.397**
	Sig. (2-tailed)	.027	.	.000	.000	.000	.000
	N	304	304	304	304	304	304
SOS	Pearson Correlation	.041	236**	1.000	.347**	.332**	.361**
	Sig. (2-tailed)	.481	.000	.	.000	.000	.000
	N	304	304	304	304	304	304
MEM	Pearson Correlation	.117*	.461**	.347**	1,000	.420**	.390**
	Sig. (2-tailed)	.041	.000	.000	.	,000	.000
	N	304	304	304	304	304	304
COG	Pearson Correlation	**.207****	.374**	.332**	.420**	1.000	.680**
	Sig. (2-tailed)	.000	.000	.000	.000	,	.000
	N	304	304	304	304	304	304
META	Pearson Correlation	**.199****	.397**	.361**	.390**	.680**	1.000
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.
	N	304	304	304	304	304	304

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

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

However, the most significant relation was seen between the cognitive strategies and vocabulary size (p < 0.01**). The second significant relation was between the meta-cognitive strategies and vocabulary size (p<0.01**). Among the strategy variables, only social strategies did not reveal a correlation with vocabulary size.

Correlation statistics revealed that in the studies there was a significant correlation (p<0.01**) between meta-cognitive strategies and the vocabulary level of the students. Many researchers accept the efficiency of meta-cognitive strategies (Schmitt and McCarthy, 2001; Williams & Burden, 1997). They believe that students who employ meta-cognitive strategies have abilities to manage and regulate consciously the use of appropriate learning strategies for different situations. The study revealed that students used study aids and made use of any special vocabulary sections in their notebooks, which helped them learn new words. It was also revealed that their use of verbal and written repetition strategies increased their vocabulary.

Conclusion and Implications

It is a fact that there is no language without words and words are the building-blocks of a language (Thornbury 2002). Although vocabulary learning was often left to look after itself and given little priority, in recent years the status of vocabulary has changed (Richards and Renandya 2002). Researchers believed that there were strong reasons for a systematic and principled approach to vocabulary by both the teachers and learners. To this end, in this study vocabulary size and vocabulary learning strategies of the pre-service teachers were examined.

The findings of the study were organized in three parts: 1) results of the use of vocabulary learning strategies, 2) results of the vocabulary levels test, and 3) results with regard to the relationship between the vocabulary learning strategies and vocabulary size.

It was revealed that more sophisticated strategies such as '*guessing from textual context',* 'interacting with native speakers' were most preferred while the use of some mechanical repetition strategies such as 'word lists' and 'flash cards' were least frequently used. Descriptive statistics also revealed that students who were trying to learn new words and commit them to memory employed several strategies together. Based on these results, it can be concluded that in different contexts strategy preferences of the learners may change.

This study also investigated the vocabulary size of different groups. In study, 1st year students scored higher than the 4th year students. The analysis also showed that students did better in the Academic Word Level Test than they did in Vocabulary Levels Tests 5000 and 10.000. The results of correlation statistics revealed that there was a relationship between the meta-cognitive, cognitive strategies and vocabulary size.

In recent years helping students learn how to continue to acquire vocabulary on their own has been favoured. For this reason, teachers should make learners believe that vocabulary acquisition is a task that involves their active participation and using social strategies. They should also learn to take this responsibility on their own shoulders by reading more texts in the target language. Class activities should be designed in which students can learn different independent ways to pick up vocabulary. Ur (2002) believes that only highly motivated learners can create other main conditions to be successful in L2 learning. Therefore, it may

also be helpful to consider the role of motivation and help students increase their motivation to become more successful learners. Finally, it is necessary to give learners a chance to recognize their own learning styles and to employ cognitively demanding strategies, which lead to higher store in memory than do the cognitively shallow activities such as verbal repetition.

In this study only quantitative data collection and analysis methods were employed. It is suggested that in a further study qualitative data should be gathered and interpreted in order to reach more detailed thoughts and feelings of the students related to their strategy preferences, which will help to uncover the problematic concept of vocabulary learning and strategy training of Turkish university students in the Turkish context.

References

Aktekin, N. Ç., and Güven, S.(2013). Examining the impact of vocabulary strategy training on adult EFL students. Mersin University Journal of the Faculty of Education, Vol. 9, Issue 2, pp.339-352.

Askar, W.A.(2013). A survey on the use of vocabulary learnıng strategıes by ELT and ELL students of Duhok University in Northern Iraq. Unpublished MA Thesis, Near East University, Graduate School of Education Sciences, Nicosia.

Baharudin, H. and Zawawi, I. (2014). Vocabulary Learning Strategies and Arabic Vocabulary Size among Pre-University Students in Malaysia. International Education Studies, Vol. 7, No. 13, 219-226.

Brown, D. (2002). Strategies for Success: A Practical Guide to Learning English. New York: Pearson Education.

Cohen, A. D. (1999). Strategies in Learning and Using Second Language. Malaysia: Longman.

Erten, İ. H. (1998). Vocabulary Learning Strategies: An Investigation into the Effect of Perceptual Learning Styles and Modality of Word Presentation on the Use of Vocabulary Learning Strategies. Unpublished Ph.D. Dissertation. Exeter: The University of Exeter

Erten, İ. H. (2000). "Vocabulary Learning Strategies: An Attempt to Develop Taxonomy." (19 – 20 Oct 2000. 4. International INGED Çukurova ELT Conference.

Gorevannova, A.(2000). The Relationship between Students' Perceptual Learning Style Preferences, Language Learning Strategies and English Vocabulary Size. Unpublished M.A Thesis. Ankara: Bilkent University.

Gu, Y., and Johnson, R. K. (1996). Vocabulary learning strategies and language learning outcomes. Language Learning 46 (4), 643 – 79.

Hatch, E. and Brown, C. (1998). Vocabulary, Semantics, and Language Education. U.S.A: Cambridge University Press.

Hedge, T. (2001). Teaching and Learning in the Language Classroom. Hong Kong: Oxford University Press.

King, G. (2000). Collins Word power. Glasgow: Caledonian International Book Manufacturing Ltd.

Lewis, M. (1994). The Lexical Approach: The State of ELT and a Way Forward. London: Commercial Colour Press.

Mackey, A., and Gas, S.M. (2005). Second language research: Methodology and design. USA: Lawrence Erlbaum Associates.

Nation, I. S. P. (1990). Teaching and learning vocabulary. U.S.A: Heinle & Heinle Publishers.

Nation, I. S. P. (2001). Learning Vocabulary in another Language. Cambridge: Cambridge University Press.

Nation, I. S. P. (2002). "Measuring Learner's Present Level of Vocabulary Knowledge." (Workshop paper received by personal communication).

Oxford, R. L. (1990). Language Learning Strategies: What Every Teacher Should Know. U.S.A: Heinle & Heinle Publishers.

Özdamar, K. (2002). Paket Programlar İleri Veri Analizi 1 SPSS- MINITAB. Eskişehir: Kaan Kitabevi.

Read, J. (2000). Assessing Vocabulary. Cambridge: Cambridge University Press.

Richards, J. C. and Renandya, W. A. (2002). (Eds.) Methodology in Language Teaching: An Anthology of Current Practice. U.S.A: Cambridge University Press.

Sanaovi, R. (1995). Adult learners' approaches to learning vocabulary in second languages. The Modern Language Journal. 79, (1), 15-28.

Schmitt, N. (2000). Vocabulary in Language Teaching. U.S.A: Cambridge University Press.

Schmitt, N., and Mccarty, M. (2001). Vocabulary: Description, Acquisition and Pedagogy. Cambridge: Cambridge University Press.

Schmitt, N., Bird, R., Tseng, A. C., and T-C Yang, T. C.(1997). Vocabulary learning strategies: Student perspectives and cultural considerations. U.S.A: Independence.

Şener, S. (2003). The Relationship between vocabulary learning strategies and vocabulary size of the ELT Students. The Second International ELT Conference "Languages for Life". Çanakkale Onsekiz Mart University, 22-25 May, Çanakkale, 2003.

Singleton, D. (1999). Exploring the second language mental lexicon. Cambridge: Cambridge University Press.

Tanyer, S. and Öztürk, Y. (2014). Pre-service English teachers' vocabulary learning strategy use and vocabulary size: : A Cross- sectional Evaluation. Journal of Language Teaching and Research, Vol. 5, No. 1, pp. 37-45.

Thornbury, S. (2002). How to teach vocabulary. Malaysia: Longman – Pearson Education Limited.

Ur, P. (2002). A Course in language teaching: Practice and Theory.GB: Cambridge University Press.

Williams, M., and Burden, R. L.(1999). Psychology for Language Teachers: A Social Constructivist Approach. Cambridge: Cambridge University Press.

Zimmerman, C. B. (1998). "Historical Trends in Second Language Vocabulary Instruction." J. Coady and T. Huckin (Eds.), Second Language Vocabulary Acquisition U.S.A: Cambridge University Press.