T.C.
UNIVERSITY OF GAZİANTEP
GRADUATE SCHOOL OF SOCIAL SCIENCES
DEPARTMENT OF ENGLISH LANGUAGE TEACHING

THE RELATIONSHIP BETWEEN VOCABULARY LEARNING STRATEGIES AND VOCABULARY PROFICIENCY

MASTER OF ARTS THESIS

YUNUS, BOZGEYİK

Supervisor: Assist. Prof. Dr. Filiz YALÇIN TILFARLIOĞLU

GAZİANTEP
MARCH 2011

The Relationship between Vocabulary Learning Strategies and Vocabulary Proficiency

Yunus BOZGEYİK

Date of Viva: 25/02/2011

Approval of the Graduate School of Social Sciences

Assist. Prof. Dr. Ahmet AĞIR
Director

I certify that this thesis satisfies all the requirements as a thesis for the degree of Master of Arts.

Assist. Prof. Dr. Filiz YALÇIN TILFARLIOĞLU
Head of Department

This is to certify that I have read this thesis and that in my opinion it is fully adequate, in scope and quality, as a thesis for the degree of Master of Arts.

Assist. Prof. Dr. Filiz YALÇIN TILFARLIOĞLU
Supervisor

This is to certify that we have read this thesis and that in our opinion it is fully adequate, in scope and quality, as a thesis for the degree of Master of Arts.

Examining Committee Members:
 (Title, Name and SURNAME)   Signature

Assist. Prof. Dr. Filiz Y. TILFARLIOĞLU   _____

Assist. Prof. Dr. Mehmet BARDAKÇI   _____

Assist. Prof. Dr. Belma YAŞAR   _____

ACKNOWLEDGEMENTS

ABSTRACT

THE RELATIONSHIP BETWEEN VOCABULARY LEARNING STRATEGIES AND VOCABULARY PROFICIENCY

BOZGEYİK, Yunus
M. A. Thesis, Department of English Language Teaching
Supervisor: Assist. Prof. Dr. Filiz Yalçın Tılfarlıoğlu
March 2011, 139 pages

Vocabulary knowledge and the variables which are related to this knowledge have been the focus of many studies in foreign languages teaching field. Among these variables Vocabulary Learning Strategies (VLS) have been attached great importance by the researchers. The current study was carried out to examine L2 learners' VLS use habits and the relationship of VLS with their vocabulary proficiency levels. In addition, language learners' beliefs about VLS in terms of usefulness were also studied to understand L2 learners' VLS use habits more deeply. To examine these matters, a descriptive research design was employed. The participants included 252 preparatory students from different proficiency groups (Upper-Intermediate, Intermediate, Pre-Intermediate, Beginner) at Gaziantep University Higher School of Foreign Languages. To collect the related data, they were given "Vocabulary Learning Strategies Questionnaire" and "Vocabulary Levels Test".

The data analyses were conducted by descriptive and inferential statistics. The results of the study showed that the participants used a wide range of VLS, and there was an overlap between their beliefs about VLS in terms of usefulness and how often they used them to a large extent. Secondly, Memory Strategies correlated positively with the participants' academic and general vocabulary proficiency levels. When the correlation tests were run for each proficiency group, it was seen that Metacognitive Strategies correlated positively with the vocabulary proficiency levels of the different proficiency groups. However, there were also some differences among the proficiency groups with regards which VLS correlated with their vocabulary proficiency levels. As to the regression analysis results, none of the VLS predicted participants' vocabulary proficiency levels.

Key words: Vocabulary Learning Strategies, Vocabulary Proficiency, Learner Beliefs

ÖZET

KELİME ÖĞRENME STRATEJİLERİ İLE KELİME BİLGİSİ YETERLİLİLİĞİ ARASINDAKİ İLİŞKİ

BOZGEYİK, Yunus
Yüksek Lisans Tezi, İngiliz Dili Eğitimi ABD
Tez Danışmanı: Yrd. Doç. Dr. Filiz Yalçın Tılfarlıoğlu
Mart 2011, 139 sayfa

Kelime bilgisi ve bu bilgi ile ilişkili olan değişkenler yabancı dil öğretimi alanında birçok çalışmanın odak noktasını oluşturmuştur. Bu değişkenler içinde Kelime Öğrenme Stratejilerine (KÖS) araştırmacılar tarafından büyük önem atfedilmiştir. Bu çalışma dil öğrencilerinin KÖS kullanım alışkanlıklarını ve KÖS ile kelime bilgisi yeterlilik düzeyi arasındaki ilişkiyi araştırmak amacıyla yürütülmüştür. Buna ek olarak, dil öğrencilerinin KÖS kullanım alışkanlıklarını daha iyi anlamak için onların KÖS hakkındaki yararlılık bakımından görüşleri de araştırılmıştır. Bu konuları araştırmak için betimleyici bir araştırma deseni kullanılmıştır. Denekler Gaziantep Üniversitesi Yabancı Diller Yüksekokulundaki dört farklı yeterlilik grubundan 252 hazırlık öğrencisini içermektedir. İlgili verileri toplamak için deneklere "Kelime Öğrenme Stratejileri Envanteri" ve "Kelime Düzeyi Belirleme Testi" verilmiştir.

Veri analizi betimsel ve çıkarımlarla gerçekleştirilmiştir. Çalışmanın sonuçları deneklerin çok çeşitli KÖS kullandığını ve deneklerin KÖS hakkındaki yararlılık bakımından görüşleriyle bu stratejileri ne kadar sık kullandıkları arasında önemli ölçüde örtüşme olduğunu göstermiştir. İkincisi, Belleksel Stratejilerin deneklerin akademik ve genel kelime bilgisi yererliliği düzeyleri ile pozitif yönde ilişki içinde oldukları gözlenmiştir. Korelasyon testleri her bir yeterlilik grubu için ayrı olarak uygulandığında, Üstbilişsel Stratejilerin farklı yeterlilik gruplarının kelime bilgisi yeterlilik düzeyleriyle pozitif yönde ilişki içinde oldukları gözlenmiştir. Fakat yeterlilik grupları arasında hangi KÖS'lerin kelime bilgisi yeterlilik düzeyleri ile ilişkili olduğu bakımından bazı farklılıklar da vardır. Regresyon analizi sonuçlarına gelince ise, hiçbir KÖS deneklerin kelime bilgisi yeterlilik düzeylerini öngörmemiştir.

Anahtar Kelimeler: Kelime Öğrenme Stratejileri, Kelime Bilgisi Yeterliliği, Öğrenci İnanışları

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER ONE
INTRODUCTION

1.1. PRESENTATION

This chapter will present background information about vocabulary learning strategies, their relation to vocabulary proficiency, and learner beliefs. After that, statement of the problem, research questions, significance of the study, limitations of the study, assumptions of the study, definitions of the terms and abbreviations will be presented.

1.2. BACKGROUND TO THE STUDY

The importance of vocabulary knowledge for attaining language proficiency in L2 can be summarized by Harmer's (1994) nice metaphor that: "If language structures make up the skeleton of language, then it is vocabulary that provides the vital organs and the flesh" (Harmer, 1994: 153). To put aside this nice metaphor, the importance of vocabulary in language learning is well established in the field. According to Xu (2009: 69):

> "Vocabulary acquisition is crucial to students' traditional language skills: reading, writing, and listening. Without enough vocabulary, listening, reading comprehension, and writing are inefficient."

However, vocabulary is also seen by the majority of language learners as one of the most problematic aspect of language learning (Gu, 1994). In the face of the importance of vocabulary knowledge for language learners and the problems it poses to language learners, it is interesting to note that until the 1980's vocabulary was not seen as an inherent component of language learning and teaching, and the research on vocabulary acquisition which would form pedagogical basis for vocabulary learning and teaching practices was limited (Meara, 1980). However, we can infer that this situation has changed by looking at the cheer number of studies carried out on various aspects of vocabulary knowledge and vocabulary acquisition

after this period. The interest in vocabulary seems even higher today. It is very hard not to see a journal in the field which does not include a vocabulary study which doesn't share the common aim of providing pedagogical implications that would help L2 learners develop their vocabulary proficiency. In this vein of studies, Vocabulary Learning Strategies (VLS) attracts a great deal of interest among the researchers. Before continuing our discussion about VLS, the definition of the term seems a great help here. According to Catalan (2003: 56) VLS can be defined as:

> "(L2 learners') knowledge about the mechanisms used in order to learn vocabulary as well as steps or actions taken by students (a) to find out the meaning of unknown words, (b) to retain them in long-term memory, (c) to recall them at will, and (d) to use them in oral or written mode."

The interest in VLS has arisen from an awareness in the field that "aptitude is not the governing factor in language learning success, implying that language learning depends heavily on individual learners' endeavors" (Schmitt, 1997: 199). This awareness has resulted in a great interest in how L2 learners deal with the difficult task of language learning in general and vocabulary learning in particular. In this direction, the studies on VLS have been generally carried out with the aim of assessing how L2 learners learn new vocabulary and discerning those strategies which contribute to L2 learners' vocabulary proficiency relatively more than others (Barcroft, 2009). In this way, it is hoped that language teachers would become more informed about how L2 learners approach to vocabulary learning, which strategies are more related with higher levels of vocabulary proficiency, and they would close the gap between teaching practices and learning processes (Hamzah et al., 2009).

When the studies on VLS are reviewed, it is seen that they are generally divided into two different categories. On the one hand there are experimental studies which were undertaken to assess the efficiency of some VLS such as repetition of words, word cards and keyword technique (Brown and Perry, 1991; Freyd and Baron 1982 etc.). These studies, which are generally experimental in their design, focused on only one or two VLS in terms of their effectiveness for vocabulary learning, and did not take into consideration the fact that language learners can make use of a wide range of strategies collectively to learn vocabulary if they are not imposed to use one or two of them (Gu and Johnson 1996). On the other hand, there are descriptive studies (Gu and Johnson, 1996; Sanaoui, 1995; Şener, 2003 etc.) which tried to assess L2 learners' VLS use habits collectively and looked at the relationship

between VLS and L2 learners' vocabulary proficiency. This kind of studies eliminates the two major shortcomings of the previously mentioned studies. They take into account that the learners may make use of a wide range of VLS to learn vocabulary other than those imposed upon them by the researchers, and there is a dynamic interplay among these strategies in terms of their contribution to vocabulary proficiency (Sabo and Lightbown, 1999). However, the review of the related studies carried out in this vein can yield different findings. These differences are mostly about which VLS are more related with relatively higher levels of vocabulary proficiency. So, it seems necessary that more studies should be carried out to clarify the matter and to put forward pedagogical implications which have a more solid basis.

At this point, we should also mention about learner beliefs and their effects on vocabulary learning because they can "influence learners' behaviors and, in particular, choice of learning strategies" (Tanaka and Ellis, 2003: 63). So, learner beliefs about VLS in terms of usefulness deserves studying because they can affect vocabulary learning outcomes by governing L2 learners' VLS choices, which may have varying degrees of efficiency in terms of their contribution to vocabulary proficiency. Besides, a total understanding of VLS use habits of L2 learners without examining their beliefs about these strategies in terms of usefulness would be missing (Schmitt, 1997).

The first aim of the study was to study VLS use habits of L2 learners and how useful they believed different VLS to be. In this direction, the study aimed to get a general picture of VLS use habits of preparatory students at Gaziantep University and their beliefs about VLS in terms of usefulness.

The second aim of the study was to examine whether there were any relationships between VLS and L2 learners' vocabulary proficiency. The results of the statistical tests will reveal whether such relationships exist as suggested by various researchers (Gu and Johnson, 1996; Sanaoui, 1995; Şener, 2003 etc.).

1.3. STATEMENT OF THE PROBLEM

It is widely accepted that vocabulary proficiency is very crucial for language learners' proficiency in a given language, and vocabulary deficiency may disrupt performing the necessary production and comprehension skills expected from them (Xu, 2009). However, vocabulary learning forms one of the most problematic aspects of language learning for L2 learners (Gu, 1994). The result of this situation is

the fact that while some learners develop a satisfactory amount of vocabulary proficiency, lots of others do not. Hence, how L2 learners can learn vocabulary more efficiently is a heated debate in the field. To illuminate this problem, the researchers have conducted studies to highlight the variables which lead to high vocabulary proficiency. The review of the related literature points out that the first and the most important of these variables seems to be VLS. If we take into account the previously-mentioned observation of the researcher and the related research (Gu and Johnson, 1996; Sanaoui, 1995; Şener, 2003 etc.), we can say that there can be some relationships between L2 learners' vocabulary proficiency and VLS employed by them. By studying L2' learners VLS use habits and the relationship between VLS and L2 learners' vocabulary proficiency, we can have a chance of detecting which VLS are related with relatively higher levels of vocabulary proficiency. The need for studying VLS is also explained by Sabo and Lightbown (1999) in a very compact manner. According to them:

> "A description of the strategic behavior that learners adopt could take us closer to determining the role that individual differences play in lexical learning and, possibly, to pinpointing the types of strategies that work for the largest number of students in a variety of vocabulary learning situations." (Sabo and Lightbown,1999:176)

Even if VLS seem to be related with L2 learners' vocabulary proficiency and several studies have been carried out to illuminate this relationship, the findings of such studies can contradict each other. This situation makes it necessary to conduct more studies on this matter. The current study is an attempt in this direction.

Another variable which needs to be mentioned within the scope of the current study is learner beliefs about VLS in terms of usefulness. Learner beliefs are important from the point of the fact that they may determine how L2 learners approach to vocabulary learning by employing different VLS (Tanaka and Ellis, 2003). However, the review of the related literature shows that the number of the studies on this matter is very limited. So, conducting a study on learner beliefs about VLS is a necessity in the field.

1.4. PURPOSE OF THE STUDY

Even if many experimental studies which examine individual VLS (e.g. using keywords, looking up dictionaries, using word cards) and their effects on vocabulary knowledge have been carried out in the field (Prince, 1996; Waring's,

1997; Morin and Goebel, 2001 etc.), the number of studies which explore VLS use habits of language learners descriptively and the effect of these strategies on their vocabulary knowledge is much more limited. Moreover, the studies carried out in this direction can indicate different findings. The current research was carried out to clarify these issues more. L2 learners' beliefs about VLS in terms of usefulness were also surveyed in order to comprehend their VLS use habits better. In this direction, the researcher conducted a number of analyses on the data collected by means of "Vocabulary Learning Strategies Questionnaire" (VLSQ) and "Vocabulary Levels Test" (VLT). First of all, the mean scores of the participants for VLS in VLSQ were calculated both on item and category basis both in terms of frequency of use and their beliefs about VLS with regards to usefulness. In addition, two different One-way ANOVA tests were run on these mean scores to examine whether they were significantly different. Next, the scores of each proficiency group (Upper-Intermediate, Intermediate, Pre-Intermediate, Beginner) in VLT were calculated and several One-way ANOVA tests were run to have an idea of vocabulary proficiency of the participants. Then, correlation and multiple regression tests were conducted for all of the participants to see the relationship between VLS and their vocabulary proficiency at the first step. At the second step, the same analyses were run for each proficiency group on the possibility that we could obtain a different picture than we got for the analyses that were conducted for all of the participants.

1.5. SIGNIFICANCE OF THE STUDY

As it was mentioned before, vocabulary knowledge has a very important place in determining language learners' proficiency in a given language. That is why, understanding factors which contribute to building substantial amounts of vocabulary knowledge is crucial both for language teachers and learners.

Throughout their language learning process, language learners employ different VLS in order to increase their vocabulary knowledge. The fact that not all learners have a desired level of vocabulary proficiency pinpoints to the possibility that language learners with higher levels of vocabulary proficiency may make use of some strategies which contribute to their vocabulary proficiency much more than other strategies. Discernment of such efficient strategies can facilitate L2 learners' vocabulary learning by allowing English teachers to be aware of them and to develop vocabulary teaching activities which allow learners to make use of more efficient

VLS. In this way, the discrepancy between learning and teaching practices can be reduced (Hamzah et al.,2009). Besides, language teachers can encourage their students to make use of such efficient VLS while learning vocabulary.

Another aim of the study was to examine learners beliefs about VLS in terms of usefulness. The importance of the learners beliefs come from the fact that they can affect how learners behave in specific ways (Tanaka and Ellis, 2003). If we apply this general rule to VLS use habits of language learners, we can say that they have a potential of governing L2 learners' VLS use. From this point of view, it is reasonable to think that learner beliefs may have an effect on vocabulary proficiency of language learners indirectly. To give an example to the possible indirect role of learner beliefs on vocabulary proficiency, a language learner may use some inefficient VLS believing them to be useful. In this context, studying learner beliefs and making language learners aware of them may help learners to review their beliefs in a way that would allow them to employ more efficient VLS.

1.6. STATEMENT OF RESEARCH QUESTIONS AND HYPOTHESIS

1.6.1. Research Questions

Research Question # 1 Which VLS were used most often and believed to be most useful by the participants?

Research Question # 2 Which VLS were used least often and believed to be least useful by the participants?

Research Question # 3 Are there any significant differences among the scores of the participants in six categories of VLS in terms of frequency of use?

Research Question # 4 Are there any significant differences among the scores of the participants in six categories of VLS in terms of their beliefs about them with regards to usefulness?

Research Question # 5 Are there any Significant Differences among proficiency groups (Upper-Intermediate, Intermediate, Pre-Intermediate, Beginner) in terms of their vocabulary proficiency?

Research Question # 6 Are there any significant relationships between participants' vocabulary proficiency and VLS?

Research Question # 7 Are there any significant relationships between vocabulary proficiency and VLS for the four different proficiency groups (Upper-Intermediate, Intermediate, Pre-Intermediate, Beginner)?

Research Question # 7a Are there any significant relationships between vocabulary proficiency and VLS for the Upper-Intermediate group?

Research Question # 7b Are there any significant relationships between vocabulary proficiency and VLS for the Intermediate group?

Research Question # 7c Are there any significant relationships between Vocabulary Proficiency and VLS for the Pre-Intermediate group?

Research Question # 7d Are there any significant relationships between Vocabulary Proficiency and VLS for the Beginner group?

1.6.2 Hypotheses

Hypothesis for Research Question # 3 There are no significant differences among the scores of the participants in six categories of VLS in terms of frequency of use.

Hypothesis for Research Question # 4 There are no significant differences among the scores of participants in six categories of VLS in terms of their beliefs about them with regards to usefulness.

Hypothesis for Research Question # 5 There are no significant differences among proficiency groups (Upper-Intermediate, Intermediate, Pre-Intermediate, Beginner) in terms of their vocabulary proficiency.

Hypothesis for Research Question # 6 There are no significant relationships between participants' vocabulary proficiency and VLS.

Hypothesis for Research Question # 7 There are no significant relationships between vocabulary proficiency and VLS for the four different proficiency groups (Upper- Intermediate, Intermediate, Pre-Intermediate, Beginner).

Hypothesis for Research Question # 7a There are no significant relationships between vocabulary proficiency and VLS for the Upper-Intermediate group.

Hypothesis for Research Question # 7b There are no significant relationships between vocabulary proficiency and VLS for the Intermediate group.

Hypothesis for Research Question # 7c There are no significant relationships between vocabulary proficiency and VLS for the Pre-Intermediate group.

Hypothesis for Research Question # 7d There are no significant relationships between vocabulary proficiency and VLS for the Beginner group.

1.7. ASSUMPTIONS OF THE STUDY

The current study has several assumptions. First of all, it is assumed that the sample in the study represents the whole population, namely all the students at Gaziantep University Higher School of Foreign Languages. Secondly, the placement test which was used to allocate the participants to one of the four proficiency groups (Upper-Intermediate, Intermediate, Pre-Intermediate, Beginner) at the beginning of the academic year is assumed to be valid and reliable. Lastly, we assume that data collection instruments are valid, and the participants responded to the data collection instruments sincerely.

1.8. LIMITATIONS OF THE STUDY

There are several limitations of the study. First of all, the study was carried out at Gaziantep University, Higher School of Foreign Languages, and the participants included preparatory students who were taking intensive English course when the data collection instruments were conducted. So, the results are valid only for the related students.

The other limitation of the study arises from the characteristics of the Vocabulary Levels Test (VLT). It assesses vocabulary proficiency in terms of receptive vocabulary knowledge. So, the findings with regards to the relationship between VLS and vocabulary proficiency are valid only for the vocabulary proficiency at reception level.

1.9 DEFINITION OF THE TERMS AND ABBREVIATIONS

Defining the terms and abbreviations which will recur throughout the study would be useful for the reader. These are:

Vocabulary Learning Strategies: Actions taken by language learners to learn new vocabulary in a given language.

Vocabulary Breadth: The number of words known by a person.

Vocabulary Depth: Vocabulary depth is a qualitative term. It is about knowing different aspects of a word including "its meaning (to several levels of precision), its grammatical categories, its derivations, its pragmatic and sociolinguistic value, and its collocations" (Schoonen and Verhallen, 2008: 212).

Learner Beliefs: Learner beliefs can be defined as "general assumptions that students hold about themselves as learners, about factors influencing language learning and about the nature of language learning and teaching" (Victori and Lockhart, 1995: 224).

VLS: Vocabulary Learning Strategy(ies)

VLSQ: Vocabulary Learning Strategies Questionnaire

VLT: Vocabulary Levels Test

L1: the mother tongue or first language

L2: a term used to refer to both foreign and second language.

CHAPTER TWO
REVIEW OF LITERATURE

2.1. PRESENTATION

This chapter will begin with the discussion of lexical knowledge. After that, depth and breadth of vocabulary knowledge will be explained. The discussion will proceed with how lexical items are stored in the brain. Then, L2 internal lexicon will be analyzed with an emphasis on how it is integrated to or separated from L1 internal lexicon. The other matters that will be discussed include the vocabulary size of native speakers and amount of vocabulary needed by language learners, causes of vocabulary learning difficulties, vocabulary teaching methods with a historical perspective, learner beliefs and vocabulary learning strategies. The chapter will end with a review of the related studies.

2.2. LEXICAL KNOWLEDGE

Very broadly, lexical knowledge can be defined as the knowledge of the spoken or written form of a given word, its meaning and morphology. However, the important place of lexical knowledge within the framework of the current study makes it necessary to go into the details of what is included in vocabulary knowledge. Richards (1976) puts forward that there are seven facets of vocabulary knowledge and these can be numbered as:

- Knowing a word means knowing the degree of probability of encountering that word in speech or print. For many words, we also "know" the sort of words most likely to be found associated with the word.
- Knowing a word implies knowing the limitations imposed on the use of the word according to variations of function and situation.
- Knowing a word means knowing the syntactic behavior associated with that word.
- Knowing a word entails knowledge of the underlying form of a word and the derivatives that can be made from it.

- Knowing a word entails knowledge of the network of associations between that word and the other words in language.
- Knowing a word means knowing the semantic value of a word.
- Knowing a word means knowing many of the different meanings associated with the word.

As can be seen in Richards' (1976) description, vocabulary knowledge is very complex and lots of different variables such as knowing the meaning, morphology and pronunciation of a given word come into contact with each other to form it. Some researchers in the field put forward that we can not approach vocabulary knowledge in a cumulative manner as in Richard's (1976) description. According to them, we should distinguish between productive and receptive vocabulary knowledge. Basically, receptive vocabulary knowledge involves perceiving the form of a word while listening or reading it and retrieving its meaning. On the other hand, productive vocabulary knowledge involves retrieval of the appropriate written or spoken form of a word from the lexical store and using it in order to convey the intended meaning. Nation's (2001) elaboration of the receptive and productive vocabulary knowledge by giving the example of what it means to know the word "underdeveloped" is of great help here to understand the distinction. He begins his description with receptive vocabulary knowledge in the following manner:

- being able to recognize the word when it (underdeveloped) is heard

- being familiar with its written form so that it is recognized when it is met in reading

- recognizing that it is made up of the parts *under-, -develop-* and *–ed* and being able to relate these parts to its meaning

- knowing that *underdeveloped* signals a particular meaning
- knowing what the word means in the particular context in which it has just occurred
- knowing the concept behind the word which will allow understanding in a variety of contexts.
- knowing that there are related words like *overdeveloped, backward and challenged*
- being able to recognize that *underdeveloped* has been used correctly in the sentence in which it occurs
- being able to recognize that words such as *territories* and *areas* are typical collocations
- knowing that *underdeveloped* is not an uncommon word and is not a pejorative word (Nation, 2001: 27-28).

This description of the constituents of receptive vocabulary knowledge is followed by productive vocabulary knowledge. Productive vocabulary knowledge involves:

- being able to say it (underdeveloped) with correct pronunciation including stress

- being able to write it with correct spelling
- being able to construct it with correct spelling
- being able to construct it using the right using the right word parts in their appropriate forms
- being able to produce the word to express the meaning "underdeveloped"
- being able to produce the word to in different contexts to express the range of meanings of *underdeveloped*
- being able to produce the synonyms and opposites for *underdeveloped*
- being able to use the word in an original sentence
- being able to produce the words that commonly occur with it
- being able to decide to use or not use the to suit the degree of formality of the situation (Nation, 2001: 28).

The detailed descriptions of both receptive and productive vocabulary knowledge prove the complexity of vocabulary knowledge further. It contains a wide range of components such as being able to retrieve the correct word for productive use and the right meaning for receptive use, being aware of various relations between words and being able to select appropriate words taking into consideration the degree of formality.

In addition to the preceding discussion, there are some concepts which are closely related to vocabulary knowledge. The foremost of them is the distinction between grammatical words and lexical words. Grammatical words have little or no semantic content of their own, and they specify grammatical relations. On the other hand, lexical words convey a meaning. Carter (1998: 8) explains this distinction stating that:

> "The former (grammatical words) comprises a small and finite class of words which includes pronouns (I, you, me), articles (the, a), auxiliary verbs (must, could, shall), prepositions (in, on, with, by) and conjunctions (and, but). Grammatical words like this are also variously known as 'functional words', 'functors', 'empty words'. Lexical words, on the other hand— which are also variously known as 'full words' or' 'content words' —include nouns (man, cat), adjectives (large, beautiful), verbs (find, wish) and adverbs (brightly, luckily)."

The other important terms to be discussed in terms of vocabulary knowledge are inflection and derivation. Carter (1998: 10) explains these two different terms in the following manner:

> "A general distinction between the two categories is: inflection produces from the root or roots of a given lexeme all the word forms of that lexeme which are syntactically determined; derivation is a process which results in the formation of different lexemes. Thus, it is a characteristic of inflections that they signal grammatical variants of a given root. They do not form new lexemes or change the grammatical class of a given item."

In view of the explanations of Carter (1998), the main difference between derivation and inflection lies in the fact that derivation can change the meaning and grammatical category of words (e.g. play-player). On the other hand, inflection produces syntactic varieties of a given word (e.g. play-playing).

The last thing to be mentioned here in terms of vocabulary knowledge is idioms. An idiom is an expression which has a meaning that cannot be understood from the individual words which form it, and this peculiarity of idioms may pose great difficulties for language learners. Carter (1998: 65) puts forward these difficulties by giving some idioms as examples. According to him:

> "These (idioms) present particular difficulties because they are restricted collocations which cannot normally be understood from the literal meaning of the words which make them up. Thus, to have/get/give cold feet (= to be/to make afraid) cannot be modified to 'frozen feet' or 'chilly feet' without changing the meaning. And in its idiomatic meaning cold feet is 'semantically opaque' in so far as the meaning of the whole is not obvious from the individual meaning of the constituent parts."

We can easily conceive from the explanations of Carter (1998) and the other experts, vocabulary knowledge is a multi-dimensional kind of knowledge, and all these dimensions interact with each other in a dynamic manner to form this knowledge.

2.3. DEPTH AND BREADTH OF VOCABULARY KNOWLEDGE

Depth and breadth of vocabulary knowledge, which have attracted a great deal of attention in the field, refer to two contrasting terms. Vocabulary breadth is a quantitative term, and it can be defined as the number of words known by a person. On the other hand, vocabulary depth is a qualitative term, and it is about the knowledge of different aspects of a word such as "its meaning (to several levels of precision), its grammatical categories, its derivations, its pragmatic and

sociolinguistic value, and its collocations" (Schoonen and Verhallen, 2008: 212). According to Schoonen and Verhallen (2008) vocabulary depth and breadth are very crucial components of human beings' language competency from birth onwards, and they grow hand in hand to bring about this competency. According to them:

> "On the one hand, the children learn more and more new words, increasing the size of their vocabulary (*breadth*). At the same time, they are confronted with new meanings and meaning relations, which enriches their understanding and use of already familiar words (*depth*)." (Schoonen and Verhallen, 2008: 213)

The implication here is even if the development of vocabulary breadth and depth correlates each other, development of vocabulary breadth precedes vocabulary depth. This makes sense from the point of the fact that a person cannot deepen his/ her knowledge of a word without knowing at least its basic meaning. The example given by Graves (1986) can be great help here in understanding the subsequent nature of vocabulary breadth and depth development. According to Graves (1986: 54):

> "Children may at first learn only the feature "four-legged" for dog, and will overgeneralize the word's meaning, using dog to refer to all four-legged animals until they acquire additional features. In this view, the development of meaning proceeds in an orderly fashion, becoming increasingly fuller and more precise."

As can be deduced from this example, development of the vocabulary breadth and depth follows a subsequent pattern in which vocabulary breadth takes the lead, and vocabulary depth includes a higher level of knowledge. According to Lee (2003: 538) this knowledge is very crucial for attaining proficiency in a given language because "depth of word knowledge gives learners a rich meaning representation of words, leading to precise comprehension necessary for recognition vocabulary to become active or productive vocabulary". From the standpoint of Lee (2003), it can be argued that the knowledge which comprises vocabulary depth may help language learners to transform the recognition vocabulary in their lexical store into productive vocabulary, and this can help them develop their speaking and writing skills.

2.4. STORAGE OF LEXICAL ITEMS IN THE BRAIN

It is logical to believe that lexical items are not stored in human mind in an unorganized way. The rationale behind this belief is the fact that even if the human memory has a large capacity, it has its own limits. In order to extend these limits,

human mind needs to organize continuously incoming knowledge so that much more place can be allocated for it. Vocabulary knowledge is not an exception here. If vocabulary knowledge is organized in some way or other, cognitive load can be minimized in a way that would allow language learners to store more words efficiently. This fact is explained by Aitchison (2003: 5) in a succinct manner:

> "Words cannot be heaped up randomly in the mind for two reasons. First, there are so many of them. Second, they can be found so fast. Psychologists have shown the human memory is both flexible and extendable, provided that the information is structured. Random factors and figures are extremely difficult to remember, but enormous quantities of data can be remembered and utilized, as well as they are well organized".

The view that lexical items are not stored randomly has forced researchers to come up with models which attempt to describe how lexical items are stored in human mind. The foremost of these models have been put forward by Collins and Quillian (1969), Collins and Loftus (1975), Bock and Levelt (1994). All these models are similar to each other in that "the organization of the lexicon is set up as a semantic network of interconnected elements" (Carroll, 2008: 110). The main difference among these models is about how this network is organized, and what kind of knowledge is included in it apart from the meaning of the words. To begin with the Collins and Quillian's (1969) model, they claim that semantic network of internal lexicon has a hierarchical nature. According to this model, elements (i.e. words) in the mental lexicon stand above or below to each other, or they can stand at the same level if they share a common hierarchical rank. The hierarchical relations in the internal lexicon include hyponymy, hypernymy and coordination. The attributes of the words such as animate, inanimate, male, female are also included in the internal lexicon.

In Collins and Loftus (1975) model, the elements (words) in the lexicon do not stand in a hierarchical relationship. The relations among them can be characterized more like a web of interconnected elements. The distance among the elements are "determined by both structural characteristics such as taxonomy (hyponymy, hypernymy, coordination) and considerations such as typicality and degree of association between related concepts" (Carroll, 2008: 115). According to this model, the distance between elements in lexicon is not equal to each other and when an element is activated other elements are also activated. The degree of activation depends on the level of association between the first activated element and

the rest of others. In addition, how frequently we come across these elements is also a determining factor in defining the degree of activation.

Bock and Levelt's model (1994) also takes for granted that the words in the human mind stand in a position of interconnectedness. According to this model, internal lexicon has a lexeme level which includes semantic meanings of words. However, there is also a lemma level which is composed of syntactic (gender, singularity, plurality etc.), phonological, morphological properties of the words. So, this model puts forward that internal lexicon does not only include the semantic properties of words, but also above mentioned aspects. In addition to that, Levelt's model (1994) also sheds some light how vocabulary is acquired. Jiang (2002: 619) explains this matter by stating that:

> "With increased experience in L2, which means increased coactivation of L2 words and their L1 lemma information, a strong link is established between L2 words and the lemma component of their L1 translations. That is, L2 words are no longer mapped to L1 translations but to L1 meaning directly. In terms of Levelt's model of lexical representation, L1 lemma information can be said to have been copied into the L2 lexical entry from its L1 translation and become part of the lexical knowledge represented in L2 entries. It is this lemma information that mediates L2 word use. We can call this unique process of form–meaning mapping in L2 vocabulary acquisition "L1 lemma copying" and the resulting lexical use "L1 lemma mediation".

As can be understood from Jiang's (2002) explanation, second language words and the lemma component of their first language translation become interconnected as language learners try to learn a new language. This process is called "form-meaning mapping", and it results in vocabulary acquisition. So, we can say that Bock and Levelt's model (1994) has also power in explaining vocabulary acquisition.

2.5. L2 MENTAL LEXICON: HOW INTEGRATED TO OR SEPARATED IS IT FROM L1 LEXICON?

It is a heated debate among experts whether L2 mental lexicon is separated from or similar and integrated to L1 mental lexicon. To begin with the integrationist approach, it hypothesizes that we can not make a distinction between L1-L2 lexicons, they are same in their nature, and they are integrated. In order to understand this standpoint better, it is necessary to have a look at the findings of research which supports the integrationist point of view. The findings of such research propose that

as similarities between the vocabularies of L1 and L2 increase, the performance of the language learners in learning the L2 vocabulary increases, or this situation activates some mechanisms in learners' minds which lead us to believe that L1 and L2 lexicons are integrated. Cook (1992) summarizes the findings of such research in the following manner:

> • Reaction time to a word in one language is related to the frequency of its cognate in another known language.
>
> • Morphemic similarities between two known languages influence translation performance (positively)
>
> • When processing an interlingual homograph, bilinguals access meanings in both their languages rather than just the meaning specific to the language being used (cited in Singleton, 2007: 3-4).

The implication of these findings is the fact that the facilitative effect of similarities between L1 and L2 vocabularies in learning L1 vocabulary and the activation of different mechanisms in learners' minds such as bilinguals' accessing both L1 and L2 meanings at the same time while processing homographs make it plausible to believe that L1 and L2 lexicons are integrated or interconnected in high degrees. Another type of testimony in favor of integrationist approach comes from the findings of word association studies. In this type of research, participants are required to report what comes to their mind in one word when the researchers read aloud some stimulus words. The responses of the participants are classified into three as syntagmatic (e.g. door as a response to open), paradigmatic (e.g. black as a response to white), and clangs, which are phonologically similar to the stimulus words (e.g. but as a response to butter). The integrationists compare the responses of native speakers from different age groups with the responses of L2 learners with different proficiency levels to testify their standpoint. To give an example to such studies, Soderman's study (1993) showed that answers of less proficient L2 learners showed similarities with those of L1 children. However, as the L2 learners became more and more proficient, their responses got similar to those of the adult native speakers in that they became more paradigmatically oriented. These findings imply that L1 and L2 speakers' lexicons follow a similar developmental pattern, and they become more or less similar in their organization as L1 learners mature and L2 learners become more proficient in a given language. Basing their views on the

findings of studies which has a similar design with Soderman's (1993) study, integrationists claim that L1 and L2 lexicons are similar in their nature.

On the other hand, the testimony for the view that L1 and L2 lexicons are two distinct systems comes from the cases of bilinguals and multilinguals who have suffered from a total language loss as a result of brain damage and who have recovered their languages as a result. One example of this particular case comes from Grosjean's (1982) study in which he discusses a bilingual scholar's case who experienced a total language loss and recovered French and German subsequently. According to integrationists, the existence of such cases show that L1 and L2 lexicons are stored in different areas of the brain, and one of the lexicons can operate independent of the other one(s). That's why, they claim that L1 and L2 lexicons are separated from each other.

2.6. VOCABULARY SIZE OF NATIVE SPEAKERS AND THE SIZE OF VOCABULARY NEEDED BY LANGUAGE LEARNERS

The knowledge about the vocabulary size of native speakers may have practical implications for language teachers by giving them an idea about how many words a language learner should know to achieve an acceptable level of proficiency in a given language. About this matter Goulden et al. (1990) claims that university graduate native speakers know about 20.000 word families which include root words, and their inflectional and derivational forms, and they acquire this amount of vocabulary by adding very roughly 1.000 words families each year to their lexical store consisting of 4000-5000 word families when they are five years old. However, it seems that this amount of vocabulary is hard to attain by language learners even if there can be rare examples of it. This claim is justified by the findings of Jamieson's (1976) study, which were conducted to monitor the vocabulary growth of non-native speakers in an English-medium primary school setting. The study showed that even if the degree of vocabulary growth was approximately same for native speakers and non-native speakers, the initial gap persisted in the long run between these two groups in terms of their vocabulary size. Basing their views on findings of such studies, Waring and Nation (1997: 8) claim that:

> "For adult learners of English as a foreign language, the gap between their vocabulary
>
> size and that of native speakers is usually very large, with many adult learners of English

having a vocabulary size of much less than 5,000 word families in spite of having studied English for several years . Large numbers of second language learners do achieve vocabulary sizes similar to those of educated native speakers, but they are not the norm."

The disappointing fact that attaining a vocabulary size similar to that of native speakers is a very challenging goal for language learners brings to our minds the questions of how many words a learner should know to be able to attain an acceptable level of proficiency in a given language, and which words should be targeted primarily by the language teachers. As we know from common experience, we come across and use some words more frequently than others. This has pushed experts in the field to come up with different models of vocabulary teaching (Richards, 1943; West 1953 etc.) which takes into consideration this fact. The rationale behind these models rests on the fact that the most frequent words in a language have the ability of covering a substantial amount of the related language. Hirsch and Nation's (1992) study is a proof of this fact. They studied novels in English which were written for teenage and younger readers. According to them, 2000 words cover 90%, 2600 words cover 96%, and 5000 words cover 98.5% of these novels. What we can conclude is the fact that even if there is a vast number of words in English, high-frequency words can cover much of that language. So, learning the most frequent words may have a great value in terms of language learning.

One of the oldest of the above-mentioned models is "Basic English", which was proposed by Ogden (1930). The rationale of the model was providing the language learners with minimal amount of vocabulary and language structures in English, which would allow them to communicate without much hardship and would serve as a basis for getting a higher level of English proficiency. Richards (1943:23) summarizes "The Basic English" stating that:

> "Basic English is English made simple by limiting the number of words to 850 and by cutting down the rules for using them to the smallest number necessary for clear statement of ideas. And this is done without a change in normal order and behavior of these words in everyday English. It is limited in words and its rules but it keeps to the regular forms of English."

A more contemporary model was West's (1953) *General Service List*. This model is based on the idea that there is a limited number of high-frequency words in

English, and by learning these words language learners can acquire a reasonable level of communication skills. This model is more systematic than Ogden's (1930) model in that the frequency of each word in the list is provided next to it..

2.7. CAUSES OF VOCABULARY LEARNING DIFFICULTIES

Vocabulary learning difficulty can be measured by the amount of effort to learn a word. The learning difficulty may arise from the characteristics of language learners such as their language proficiency and motivation levels or from the characteristics of the target words. In terms of the difficulties posed by word characteristics, Nation (2001: 23) claims that "the more a word represents patterns and knowledge that learners are already familiar with, the lighter its learning burden". In addition to the degree of similarity between the vocabularies of two languages, other factors can also play role in determining the degree of vocabulary learning difficulties. Carter and McCarthy's (1988:13) explanation of these factors is a great help here:

> "The difficulty of a word may result, *inter alia,* from the relations it can be seen to contract with other words, either in native or target language, whether it is learned productively or receptively; as well as from its polysemy, the associations it creates, its pronounceability, whether it lends itself to key-word teaching techniques and, in the case of advanced learners, from the nature of the contexts in which it is encountered."

What we understand from this explanation is that a number of factors play role in determining the difficulty of learning words. The foremost of them seems to be the degree of the similarity between the vocabulary systems of L1 and L2 as it is put forward by Nation (2001). The other factors to be mentioned are whether target words are learned through productive or receptive skills, the degree of pronounceability, the characteristics of the context in which target words are learned, and whether these words can be learned through keyword strategy.

2.8. VOCABULARY TEACHING

When we examine the related literature, we can see that lots of different methods for vocabulary teaching have been introduced through the history of ELT, and each of them has its own way with regards to how vocabulary should be taught. One of the oldest and traditional among these methods is *Grammar Translation*. In

this method, it is believed that language learners should learn words through their translations in learners' mother tongue.

In 1870's, *Direct Method* was developed in USA with a very different approach to vocabulary teaching and learning. The name of the method "came from the priority of relating meaning directly with target language without the step of translation" (Zimmerman, 1997:8). From this perspective, it can be said that *Direct Method* sees translation as an obstructive factor which should be eliminated. According to this method, words that will be taught should be simple and concrete such as parts of the body and clothes names whose meaning can be conveyed physically by gestures, pictures etc. If abstract words are targeted, they should be taught by "associating of ideas" technique (Zimmerman, 1997:9).

During World War II, a different method called *Audiolingualism* became prominent in language teaching. This method proposes that language learners shouldn't learn single words. Instead of this, students should be encouraged to acquire multiword expressions through intensive drilling activities. In this way, learners are also expected to learn collocation of the words, which can be a determining factor in fluency (Boers and Lindstromberg, 2008:2).

Another movement which attracted attention in vocabulary teaching methodology was "Basic English" by Ogden (1930), which was popular in 1930's. This method was detailed in the preceding sections.

With the increasing popularity of *Communicative Language Teaching* after 1970's, which attaches great importance to the communicative function of language, it has been put forward that language teaching should include vocabulary teaching to the extent that it does not violate the assumption that language is for communication, and vocabulary teaching should not be an end in itself. In *Communicative Language Teaching* approach, it is believed that vocabulary should not be taught explicitly by providing learners with translations, word lists etc. Instead, learners should be able to infer the meanings of the unknown words through meaningful contexts or their existing knowledge of the vocabulary system of the related language. This characteristic of *Communicative Language Teaching* with regards to vocabulary teaching is described by Boers and Lindstromberg (2008: 3) in the following manner:

> "It has generally been assumed that FL learners pick up most of their new words and expressions incidentally, much like small children acquire the vocabulary of their L1 and that, therefore, the best way for teachers to promote vocabulary learning is to encourage

learners to deploy their preexisting ability to infer word meanings from context and from the meanings of constituent morphemes. In cases where such inferencing fails, students have often been expected simply to tolerate the vagueness and wait for unguessed words to turn up again in richer context."

The other more recent approach which we can refer here is *The Lexical Approach* by Lewis (1993). In this approach, it is assumed that human beings acquire language by comprehending and producing chunks and fixed expressions. That's why, this approach opposes to the traditional language teaching in which grammar constitutes the most important component. Instead, it should be ensured that learners acquire chunks and fixed expressions. The main advantage of this approach is the fact that chunks and fixed expressions occur very frequently in a given language and they can be memorized easily. To teach chunks and fixed expressions different activities can be used. Some of these activities include using dictionaries, studying corpuses to find out common fixed expressions, repetition of fixed expressions, guessing word meanings from context and intensive reading. In this way, it is hoped that language learners can have an awareness of the lexical nature of a given language and attain the desired level of language proficiency.

To sum up, methods for vocabulary teaching have changed through the history and each method has brought with itself a different outlook as to how vocabulary should be thought. It is inevitable that each of these methods has its own advantages and disadvantages. In this case, it seems plausible not to follow only one method in a blindfolded way. Instead, an authentic method can be developed by language teachers which integrates strengths of different approaches in accordance with the needs of their students.

2.9. LEARNER BELIEFS

Language learners develop a wide range of beliefs about themselves and different aspects of language learning. Victori and Lockhart (1995:224) defines learner beliefs as "general assumptions that students hold about themselves as learners, about factors influencing language learning and about the nature of language learning and teaching". According to Bernat and Lloyd (2007: 80) learner beliefs are in an inherent relationship with variables such as culture, personal traits, gender, and individual differences, and these "beliefs are quite stable within the learner, strongly held, and resistant to change". Tanaka and Ellis (2003) claims that

the importance of learner beliefs comes from the fact that they can affect language learning outcomes indirectly by governing affective states of language learners such as motivation, anxiety etc. in addition to their effects on learners' behaviors. On the other hand, Bernat and Lloyd (2007) put forward that the effect of learner beliefs on language proficiency can be explained directly through an analysis of how they govern the use of learning strategies. According to them:

> "Students can have 'mistaken', uninformed or negative beliefs, which may lead to a reliance on less effective strategies, resulting in a negative attitude towards learning and autonomy, classroom anxiety, and poor cognitive performance." (Bernat and Lloyd, 2007: 79)

Pedagogical implication of the preceding discussion is the idea that learner beliefs have a crucial effect on language learning indirectly by regulating learners' affective states, and directly by determining strategy choices which may be beneficial or detrimental to language learning.

2.10. VOCABULARY LEARNING STRATEGIES (VLS)

Vocabulary Learning Strategies (VLS) can be defined very broadly as actions taken by the language learners in order to foster vocabulary learning in the target language. However, elaboration is needed to some extent to better understand characteristics of VLS and because of the important place of VLS in the current study. Hamzah (2009: 42) explains VLS and their characteristics in the following manner:

> "It is possible to view a vocabulary learning strategy from at least three different angles. First, a vocabulary learning strategy, very broadly speaking, could be any action taken by the learner to aid the learning process of new vocabulary. Whenever a learner needs to study words, he/she uses strategy/strategies to do it. Second, a vocabulary learning strategy could be related to only such actions which improve the efficiency of vocabulary learning. Hence, there are actions which learners might employ but which do not enhance the learning process – a perfectly possible scenario with poor learners. Third, a vocabulary learning strategy might be connected to conscious (as opposed to unconscious) actions taken by the learner in order to study new words."

So, we cannot label actions of L2 learners as VLS unless they comply with three basic criteria. Firstly, these actions should be taken with the intent of learning new vocabulary. Secondly, they should contribute to the learning of new vocabulary. This criterion is important because taking an action with the particular intent of vocabulary learning may not end up with desirable results. Thirdly, such actions

should be taken consciously. In other words, we cannot designate actions of language learners as VLS, if they are performed unconsciously. When we examine the criteria put forward by Nation (2001), we see that his criteria are approximately same as those of Hamzah (2009). He adds only one criteria to those put forward by Hamzah (2009) which asserts that VLS are teachable. According to him VLS must:

- involve choice, that is, there are several strategies to choose from

- be complex, that is, there are several steps to learn

- require knowledge and benefit from training

- increase the efficiency of vocabulary learning and use (Nation, 2001: 217).

When we examine the related literature, we can see that there have been several attempts to classify VLS, and several taxonomies have been put forward as a result of these attempts. However, all these taxonomies share approximately similar components and subdivisions (Gu and Johnson, 1996; Schmitt, 1997 etc.). In the following sections, VLS will be analyzed mostly taking Schmitt's (1997) taxonomy as basis because of the fact that the current study make use of the questionnaire which was developed by Şener (2003) based on Schmitt's (1997) taxonomy, and the other taxonomies are more or less similar to each other. Schmitt's (1997) taxonomy divides all the vocabulary learning strategies into two as Discovery strategies and Consolidation strategies. Discovery strategies are those which are helpful for discovering the meaning of the unknown words. On the other hand, Consolidation strategies help language learners to store and remember the meaning and other aspects of words such as their spelling, pronunciation etc. after discovering their meaning. There are also subdivisions of these divisions. Discovery strategies consist of Determination and Social strategies. On the other hand, Consolidation strategies include Memory, Cognitive, Metacognitive and Social strategies. In the following sections, all these divisions and subdivisions will be described in a detailed way.

2.10.1. Discovery Strategies

Our discussion of vocabulary learning strategies will begin with subdivisions of discovery strategies.

2.10.1.1. Determination Strategies

Determination Strategies include language learners' various individual attempts through various means to learn the meaning of an unknown word when they

first come across with it. Schmitt (1997: 208) describes Determination Strategies in the following manner:

"If learners do not know a word, they must discover its meaning by guessing from their structural knowledge of the language, guessing from L1 cognate, guessing from context, using reference materials, or asking someone else. Determination strategies facilitate gaining knowledge of a new word from the first four options."

As we can infer from Schmitt's (1997) brief definition Determination Strategies include a wide spectrum of strategies from guessing word meanings from context to making use of cognates. However, some of these strategies should be described in a much more detailed way in order to grasp better what these strategies are.

2.10.1.1.1. Word Part Strategy

Being able to discover the meaning of an unknown word through word part strategy includes discerning the meaning of complex words such as "dislocation" which consist of a root word and one or more affixes attached to it. Being able to use word part strategy necessitates a certain amount of knowledge on the learners' part about the meaning of a root word, affix(es) attached to that root, and how they combine to form a new word with a new meaning. By using such knowledge, language learners can deduce the meaning of unknown words. Nation (2001: 278) summarizes the necessary knowledge and the two steps to perform word-part strategy in the following manner:

1: Breaking the unknown word into pairs. This step requires learners to be able to recognize prefixes and suffixes when they occur in words.
2: Relating meaning of the word parts to the meaning of the word. This step requires learners to know the meanings of the common word parts. It also requires learners to be able to re-express the dictionary definition of a word to include the meaning of its prefix and, if possible, its stem and suffix.

Possible value of the word-part strategy for discovering the meaning of the unknown words might be inferred partially by looking at the studies on the frequency and proportion of the affixed words in English. Nagy and Anderson's (1984) study is an attempt in this vein. The study was based on the *American Heritage* corpus. Primary aim of the researchers was to see how many word families this corpus included and the formal relations between the members of these words. They found that 21.9% of the word family members included inflectional, and 12.8% included

derivational affixes, which equals to quite a number of words if we take into consideration thousands of words in English. In relation with this finding, Stauffer (1942) found that the 15 most common prefixes out of 61 he studied were part of the 82% of the total prefixed words in Thorndike's (1932) *Teachers Word Book of 20,000 words.* The findings of such studies imply that word part strategy can be a valuable strategy for language learners in that it might allow learners to decode the meaning of a large number of affixed words by knowing limited numbers of affixes.

2.10.1.1.2. Using Dictionaries

Language learners may discover the meaning of unknown words through various reference materials such as glosses at the end of the course books and word lists provided by teachers. However, English teachers know from their classroom experiences that dictionaries are the most prominent among them. In addition to their main function as a reference material for finding the meaning of unknown words, dictionaries also provide learners with other kinds of valuable information about words such as their pronunciation and grammatical characteristics. Marckwardt (1973: 396) explains these aspects of dictionaries in the following manner:

> "The utility of the dictionary as a reliable source for word meanings, spelling, and pronunciation is widely recognized. A good dictionary also contains information about grammar, usage status, synonym discrimination, application of derivative affixes, and distinctions between spoken and written English not generally treated in text-books, even in a rudimentary fashion."

In addition to providing language learner with the above-mentioned information, Summers (1988) claims that dictionary use encourages learner autonomy because learners can find answers to the questions in their mind when their teachers are not present. From this perspective, encouraging language learners to use dictionaries seems to be in accordance with "modern" learner-oriented approaches the field.

Dictionaries are divided into two as monolingual and bilingual dictionaries. Monolingual dictionaries give the meaning of words in the target language through translations in learners' mother tongue, and they are the most preferred type of dictionaries by language learners (Baxter, 1980). On the other hand, monolingual dictionaries convey the meaning of words in the target language, and they also give much more detailed information about them such as their degree of formality and

different grammatical forms. However, beginner-level learners' limited language proficiency can impede their making use of such kind of dictionaries severely because these dictionaries explain the meaning of words in the target language, and understanding these explanations necessitates a certain amount of language proficiency.

2.10.1.1.3. Using Context

When we review the related literature about the role of context in vocabulary learning, we can see that its value is highly-esteemed among the experts in the field. The explanation behind why contextual vocabulary learning is attached such an importance lies in the belief that there is a vast number of words in the internal lexicon, and how human beings acquire so many words can only be explained by contextual learning. Sternberg's (1987: 90) explanation of the matter provides an example of this thinking:

> "Most vocabulary is learned from context. During the course of one's lifespan, one is exposed to innumerable words through seemingly countless sources-textbooks, lectures, newspapers, magazines, friends, enemies, parents, movies, and so on. Even if the one learned a small proportion of the words thus encountered in contexts, in which they are presented, one could possibly develop a vocabulary of tens of thousands of words, which represents only an infinitesimal proportion of our exposure to words."

According to Nation and Coady (1988: 102), language learners not only make use of "morphological, syntactic, and discourse information in a given text" while learning vocabulary from context, but also their "background knowledge of the subject matter in a given text", and good learners utilize all this information and knowledge to the utmost degree. As we can understand from the explanations of Nation and Coady (1988), language learners make use of the meaning and formal characteristics of texts such as their syntactical characteristics while learning new vocabulary. Moreover, learners' background knowledge about the subject of the text can also help them in inferring the meaning of unknown words. The characteristics of textual context which help learners to guess the meaning of unknown words are called cues, and Sternberg (1987: 92) categorizes them into eight as:

- 1: *Temporal Cues:* cues regarding the duration or frequency of X (unknown word)
- 2: *Spatial Cues:* cues regarding the location of of X, or possible locations which X can sometimes be found

- 3:*Value Cues:* cues regarding the worth or desirability of X, or the kinds of affects X arouses

- 4: *Stative Descriptive Cues:* cues regarding properties of X (such as size, shape, color, odor, feel, etc.)

- 5: *Functional Descriptive Cues:* cues regarding possible purposes of X, actions X performs, or potential uses of X

- 6: *Causal Membership Cues: cues* regarding possible causes of X or enabling conditions for X

- 7: *Class Membership Cues:* cues regarding one or more classes to which X belongs, or other members of one or more classes of which X is a member

- 8: *Equivalence Cues:* cues regarding the meaning of X, or contrasts (such as antonymy) to the meaning of X:

What can be concluded from the preceding discussion is the fact that context provides a rich source for vocabulary learning. However, learning vocabulary through context is not an easy process. It requires from language learners to make use of a wide range of cues to guess the meaning of unknown words correctly.

As opposed to the researchers who believe in the value of contextual vocabulary learning, there also others who claim that it brings with itself some problems. Laufer (2005), in this vein of thinking, claims that three basic reasons can be put forward against using contextual vocabulary learning very much. First of all, it is very hard to learn low-frequency words through contextual learning because learners can not come across these words frequently enough to guess their meaning, and these low-frequency words are necessary for a high-level proficiency in the target language. Secondly, it is very hard to have a deep knowledge of words such as their connotations, synonyms, antonyms in this kind of vocabulary learning. According to her, this kind of knowledge can only be acquired through the vocabulary learning activities which aim explicit vocabulary learning. Lastly, words learned contextually can not be used productively most of the time.

To summarize the discussion on contextual vocabulary learning, it seems an effective strategy. However, it also poses problems from the perspective of learning the meaning of low-frequency words. Besides, words which are learnt contextually can increase language learners proficiency only for comprehension skills. That is why; it seems plausible that contextual vocabulary learning should be supported by other strategies which can compensate its disadvantages.

2.10.1.1.4. Using Cognates

A word is cognate with another if they share the same origin. Television in English and televizyon in Turkish are examples of cognate words. In order to infer the meaning of unknown words in the target language, language learners might make use of such words. The usefulness of this strategy arise from the idea that the more similarity a word in the target language share with its counterpart in learners' mother tongue, the more easy it would be to learn it, and learners see languages as more or less similar unless they have a good reason not to do so (Swan, 1997). However; Hakan (2006) claims that the value of cross-linguistically similar words such as cognates is questionable in terms of vocabulary learning for productive skills, even if they can facilitate language learners' comprehension skills. According to him:

> "Cross-linguistically similar words, which form the central part of the learner's potential vocabulary, facilitate the learner's task in comprehension, but not at all to the same extent in production. The learner will not use L2 items productively until they, or parts of them, have been learned, but the potential knowledge across languages perceived to be similar is used for comprehension before learning has taken place. Existing knowledge structures are activated by incoming data, all the more so if cross-linguistic or other formal similarities can be established, as they can in comprehension of closely related language." (Hakan, 2006: 24)

If we take into account Hakan's (2006) claims about the effects of cognate words in language learning, we can say that cognate words are very useful especially for comprehension of the target language. However, our positive attitude towards cognates should be balanced because of the fact that learning a word in its full terms includes using it productively and such learning may not occur with the help of cognate words.

2.10.1.2. Social Strategies

Learners may also use social strategies to find out the meaning of unknown words. Schmitt (1997:210) explains the social strategies in the following manner:

> "A second way to discover a new meaning employs the social strategy of asking someone who knows. Teachers are often in this position, and they can be asked to give help in a variety of ways: giving the L1 translation if they know it, giving a synonym, giving a definition by paraphrase, using new word in a sentence, or any combination of these."

As we can understand from this explanation, using Social Strategies necessitates another person's help in the form of asking for L1 translation,

synonymy, and using target words in a sentence, and teachers occupies that position generally. However, language learners may also ask help from their classmates.

2.10.2 Consolidation Strategies

In this part of the study, the strategies which are used by language learners in order to consolidate the meanings of new vocabulary in their minds will be discussed.

2.10.2.1. Memory Strategies

Memory Strategies (mnemonics) include those actions learners make use of in order to facilitate retention of the unknown words (Sanaoui, 1995). However, the most important characteristic of these strategies is that they "involve relating the word to be retained with some previously learned knowledge, using some form of imagery, or grouping", and they require "organizing mental information together or transform it in a way which makes it more memorable" (Schmitt, 1997: 206, 211). The following sections will review the foremost Memory Strategies.

2.10.2.1.1. Using Pictures and Imagery

New words can be learned with the help of pictures. In this strategy, students learn the meaning of target words through pictorial representations instead of definitions. It is widely accepted that visual information can foster learning process, and this acceptance rests on the common principle of human learning which suggests that "we remember images better than words; hence; we remember words better if they are strongly associated with images" (Underwood, 1989:19). Al-Seghayer (2001) claims that the contribution of visual stimuli to vocabulary learning can also be attributed to a specific process which links verbal system of human beings to their imagery system, and this process is closely related with the organization of linguistic knowledge and imagery system in our minds. He describes this process stating that:

> "Learners of a second language have two separate verbal systems (L1 and L2) and a common imagery system. There is a suggestion that the translation of words via simultaneous verbal and visual presentations would not only link the two verbal systems, but that this storage in the second verbal system would also have an additional effect on learning." (Al-Seghayer, 2001: 205)

By looking at preceding theoretical explanations about why learning words through pictures foster the learning process, we can say that it's deeply related with the principles of human learning and the organization of human mind with regards to its verbal and imagery system.

2.10.2.1.2. Using Related Words

In this Memory Strategy, new words are learned through linking new words to other words in the target language. This linking can be achieved by sense relationships. These relationships include synonymy (two words with the same meaning, e.g. sick and ill), coordination (two words exist at the same level hierarchically, e.g. squirrel and dove), hypernymy (one of the words is subordinated to the other one, e.g. animal and dog) or antonymy (two words have the opposite meanings, e.g. black and white). When we examine the vocabulary exercises of English course books, we can see that very large numbers of these exercises such as finding the synonym of a word are based on reinforcing these relationships in the human mind. The value of making use of related words may be related with the organization of mental lexicon. The findings of word association studies which have been carried out with the intent of having a picture of the internal lexicon can be given as a proof to this argument. Basing his views on the findings of such studies, Sheng et al. (2006: 573) states that:

> "A parallel developmental phenomenon, the *syntagmatic-paradigmatic shift,* is observed in children's responses in word association tasks. At age 5, most children respond to a word stimulus with a word that follows in a syntactic sequence (e.g., *cold— outside).* By age 9, most children respond with a word from the same form class or paradigm (e.g., *cold-hot).* Researchers consequently termed responses from different form classes *syntagmatic* and those from the same class *paradigmatic.* A predominance of paradigmatic over syntagmatic responses is indicative of a more developed semantic system, as this pattern is typical of mature language users."

It can be deduced from the explanation of Sheng et al. (2006) internal lexicon of human beings becomes much more paradigmatically oriented (which includes sense relationships like antonymy, synonymy etc.) as they get older, and the value of strategies which includes related words may come from the fact that they are in harmony with the developmental pattern and the organization of internal lexicon.

2.10.2.1.3. Semantic Mapping

Another Memory Strategy which language learners employ while learning new vocabulary is semantic mapping and, its value comes from the fact that it "provides students with a visual means of organizing content information" (Foil and Alber, 2002: 133). Stahl and Vancil (1986: 62) describe this strategy in the following way:

> "In semantic mapping, a teacher chooses a keyword and other target words from the material that the students will read. The keyword is listed on the board and students are asked to suggest terms associated with the key word. The teacher writes the suggested words in a list on the board as the students suggest them. From this list, a map is constructed. The relationships between the keyword and suggested words are discussed thoroughly. Students are then asked to categorize each section of the map."

As can be seen from the above description, semantic mapping strategy is performed with the initiation of teachers. However, this doesn't mean that it is a totally teacher-directed strategy. Active participation of language learners in the form of suggesting related words with the keywords in question and the categorization of suggested words is very important to perform this strategy. Oxford and Crookall (1990: 20) claims that semantic mapping strategy may be helpful for language learners because "it visually represents the ways in which new words fit into a learner's existing schemata". From this point of view, we can assert that the theoretical underpinning of semantic mapping strategy is in accordance with Underwood's (1989) claim about the importance of visual memory for human learning.

However, Waring (1997) puts forward presenting the learners with a keyword and other words related with this keyword may handicap vocabulary learning by increasing the learning burden and causing confusion. According to him:

> "If new words are to be presented to learners, they should not be presented in groups that share a common head word or superordinate concept. For example, "clothes" words such as *jacket, shirt* and *sweater* should not be presented to learners as a group because the learning load is increased. The learner not only has to learn the new words, but as the words are so similar (they share the same superordinate concept) the learner will often confuse them and additionally will have to learn to keep the words apart, thus increasing the learning effort required. Instead, words should be presented in unrelated sets." (Waring, 1997: 262)

If we into consideration Waring's (1997) reservations about the semantic-mapping strategy, we can say its value shouldn't be taken for granted by language learners.

2.10.2.1.4. Grouping Words

This strategy includes grouping words in some sort to consolidate their meaning. Grouping requires organization of the knowledge in some way. Words can be grouped in various manners. Learners can group the words under some headings. For example, they can learn clothes names by grouping them under the heading of clothes. They can also group the words spatially. Spatial grouping involve writing down the words on a piece of paper in some sort. For example, they can write the nouns at the bottom and verbs at the top of a piece sheet. Creation of stories using target words is another option (Schmitt, 1997).

2.10.2.1.5 Using Orthographical or Phonological Form of Words

Learners can consolidate their vocabulary knowledge by paying attention to written or spoken form of words. Schmitt (1997: 214) explains how this Memory strategy can be made use of in the following way:

> "One can explicitly study the spelling or pronunciation of a word. Other options are to visualize the orthographical form of a word in an attempt to remember it, or to make mental representation of the sounds of a word, perhaps making use of rhyming words."

So, employing this strategy may require learners to study written or spoken form of the words, or creation of mental images of their written or spoken forms. There is another strategy called *Keyword* which can be examined under this section, and it deserves special attention. This technique includes relating L1 and L2 words' phonological forms and meanings. Barcroft (2009: 76) explains this strategy by giving the example of how Spanish word *flor* can be learned by English speakers through it:

> "First a learner recodes an L2 word into a familiar code based on L1 orthographic or acoustic properties of the word. Second the learner produces a compound image both the familiar code and the referent in question. For example, to remember the Spanish word *flor* for "flower" an English-speaking learner of Spanish might recode the target word as floor and visualize a flower lying on the floor to help recall that *flor* means *flower.*"

According to Carter (1987) keyword strategy is very efficient for vocabulary learning because it promotes different associations in language learners'

minds which can foster retention of the target words. About this matter Carter (1998: 155) claims that:

> "The clear principle which emerges is that the more that words are analyzed or are enriched by imagistic and other associations, the more likely it is that they will be retained. Such a technique, linking as it does form, meaning, and structure through cues which, in turn, facilitate a combination of productive and receptive senses, does appear to have advantages over an exclusive focus on straightforward translation and rote learning."

However, overusing this strategy may lead to atypical lexical relations between the target language and learners' mother tongue, and it is against the naturalistic acquisition of vocabulary (Barcroft, 2009).

2.10.2.2. Cognitive Strategies

The main Cognitive Strategies include repetition of the words through writing and saying them aloud or silently, using word cards and word lists. According to Schmitt (1997) Cognitive Strategies are similar to Memory Strategies in many aspects. The main difference between them is that "they are not focused so specifically on manipulative mental processing" (Schmitt, 1997:215). From this point of view we can say that Cognitive Strategies do not entail any transformation of knowledge in learners' minds as it is the case with Memory Strategies most of the time, and they are mostly more mechanical than Memory Strategies.

2.10.2.2.1. Repetition

Learners can consolidate the meaning of the unknown words through repeating the words saying them aloud or silently and writing down the words repeatedly. Gu (2003) claims that repetition is a common strategy among learners because it doesn't require much expertise on learners' part. According to Gu (2003: 10):

> "One of the first problems a foreign language learner encounters is how to commit a massive amount of foreign words to memory. And the first and easiest strategy people pick up and use naturally is, simply, repeating new words until they can be recognized."

The repetition of the words can be done in a nonsystematic way or according to a program designed by L2 learners. For example, learners may repeat the words five times after immediately learning them, three times one day later and two times one week later.

2.10.2.2.2. Word Cards

This strategy includes making use of small cards on which the target word is written on one side and its meaning in L1 or in L2 on the other side to memorize the meaning of target words. According to Nation (2001: 302) learning vocabulary through word cards is a valuable strategy especially when it is compared with learning the words through dictionaries because:

> "The use of word cards provides an opportunity for learners to focus on the underlying concept of a word that runs through its various related uses. This has several values. Firstly, it reduces the number of words to be learned. Dictionaries do not encourage this view, rightly preferring to separate as many different uses as possible in order to make it easier for the reader to find the meaning for a particular context."

This view shows us that the value of the word cards stems from the fact that it reduces the learning burden by providing the learners with the most common meaning of the target words which can prove valid across various contexts. However, students have to choose the right meaning of the target words from various others for the related context while using dictionaries. This process may overload the memory and can affect vocabulary retention badly.

2.10.2.2.3 Word Lists

This strategy is based on the principle of rote leaning. According to Brown (1980) rote leaning includes the storage of information in a way that they do not have to comply with the previous cognitive structures. In this strategy, L2 learners learn the meanings of the target words listed on a piece of paper according to alphabetical order or part of the speech they belong to.

2.10.2.3 Social Strategies

Group work may be used to consolidate the meaning of words in addition to finding out the meaning of unknown words. According to Dansereau (1988) cooperative learning offers lots of benefits to learners. These benefits can be enumerated as:

- It promotes active processing of information and cross modeling imitation
- The social context enhances the motivation of the participants
- Cooperative learning can prepare the participants team activities outside the classroom
- Because there is less instructor intervention, students have more time to actually use and manipulate language in class (cited in Schmitt, 1997: 211).

As can be understood from the explanation above, the value of the group work activities can be attributed to several factors. Firstly, it activates mechanisms in learners minds that help processing information actively. Secondly, it allows low-proficiency learners to take their high-proficiency peers as a model. Lastly, it promotes student-oriented teaching environment. Approaching the matter from a different perspective, Slavin (1996) claims that the value of the cooperative learning may be directly attributed to the discussion environment created by it:

> "Interaction among students on learning tasks will lead in itself to improved student achievement. Students will learn from one another because in their discussions of the content, cognitive conflicts will arise, inadequate reasoning will be exposed, disequilibration will occur, and higher-quality understandings will emerge." Slavin (1996: 1161)

So, the discussion environment created by cooperative learning can give learners the chance of seeing their weaknesses and strengths, and this situation has the potential of raising teaching and learning quality.

2.10.2.4 Metacognitive Strategies

Metacognitive Strategies are related with language learners' managing their own vocabulary development, assessing their vocabulary development through various means such as vocabulary tests and taking the necessary measures if the outcomes don't meet their expectations (Barcroft, 2009). It is widely accepted that successful learners are those who can take necessary steps to facilitate their learning process (Gu and Johnson, 1996). These steps include learners' choosing the most suitable strategies which are best suited with their vocabulary learning goals. For example, a learner may choose learning a particular word through context rather than repetition because it is in accordance with his/her specific vocabulary learning aims. Learners' programming their study time can also be treated as a Metacognitive strategy because it is about learners' controlling their own learning process. In addition to these, Metacognitive Strategies include learners' testing their vocabulary gains. Learners may test their vocabulary growth, and they may change their study habits if the outcome is not desirable,

2.11 RESEARCH ON VOCABULARY LEARNING STRATEGIES (VLS)

In the following sections of the study, related studies on vocabulary learning strategies (VLS) will be reviewed. Firstly, the studies which examine single VLS or compare one VLS with other(s) will be discussed. Then, the studies on language learners' overall VLS use will be presented.

2.11.1 Studies on Particular VLS

This section will put forward studies which have been carried out to study single VLS or to compare one strategy with the other(s).

2.11.1.1 Research on Contextual Learning

Much research has been carried out in the field to assess the effectiveness of contextual vocabulary learning. The research carried out by Pitt's et al. (1989) included adult learners of English. The study included two experimental groups and one control group. Experimental group 1 read two chapters of *A Clockwork Orange.* Experimental group 2 was shown the film version of the book before reading it to provide the group members some background information about the book. The aim of the study was to assess whether the experimental groups who read the novel would show superior performance in learning the meaning of the target Russian slang words called "nadsat" words when compared with the control group who did not read or watch the film. The results showed that both of the experimental groups did significantly better in the vocabulary test than control group who had a near zero knowledge of the target words although vocabulary gain of these groups was not substantially high. The researchers concluded that although vocabulary gain through reading might not be very big as in the case with their study, its contribution to vocabulary growth could be substantial through extensive reading activities.

Horst et al. (1998) examined the effect of contextual vocabulary learning on vocabulary gain and variables which play role in contextual vocabulary learning such as how many times a word occurs in a reading text. The study included low-intermediate university-level L2 learners in an intensive English program. Before undergoing any procedure participants were given Vocabulary Levels Test by Nation to assess their general vocabulary proficiency level. Then, participants read a simplified version of the novel *Mayor of Casterbridge.* After reading the novel, a multiple-choice test and a word association test were given as both pre and post-tests.

The difference between the pre and post-test was the measure of vocabulary gain. The findings of the study showed that vocabulary growth as was measured by multiple-choice and word-association tests was 22% and 16%, respectively, which was very substantial according to the researchers. The findings also showed that there was a positive correlation between the vocabulary gain of the target words and the number of times these words occurred in the reading text. Lastly, the findings showed that there was a positive correlation between vocabulary proficiency of the learners as measured by Vocabulary Levels Test and their vocabulary gain after reading the text. This means that subjects who had a higher vocabulary proficiency gained many more words after reading the text. The researchers concluded that contextual learning might be a valuable strategy for vocabulary learning provided that language learners read texts which allow them to come across unknown words frequently enough and they have the necessary amount of proficiency in the target language.

The study of the Day et al. (1991) included high school and university-level L2 learners in Japan. The participants were divided into two as experimental group who read a short story and took a vocabulary test in order to assess their vocabulary gain after reading the story and a control group who took only the vocabulary test. The results of the vocabulary test showed that the participants in the experimental group knew significantly more words than control group both for the university and high school-level participants. The researchers concluded that contextual learning can contribute to vocabulary proficiency of language learners significantly and English teachers should provide students with more opportunities to read for pleasure in classrooms settings.

2.11.1.2 Research on Dictionary Use

Dictionaries are one of foremost reference materials for language learners to learn the meaning of new vocabulary. That is why, they have been studied much. Dictionaries have been studied from two different perspectives. These include dictionary use habits of language learners and which kind of dictionaries (i.e. monolingual, bilingual, bilingualized) contribute to vocabulary gain most.

Laufer and Hadar (1997) examined the relative effectiveness of monolingual, bilingual and bilingualized dictionaries on vocabulary gain. The study included high school and university-level EFL learners, and they were given a list of low-frequency

words to learn. In this list, the meanings of the words were given through entries either from a monolingual dictionary, bilingual dictionary or bilingualized dictionary. Bilingulized entries gave meanings of the target words in L1 as in bilingual dictionaries. In addition, other information such as usage of the target words in a sentence was also given as it is the case with monolingual entries. That's why, it can be said that bilingualized entries were amalgamation of monolingual and bilingual entries. Vocabulary gain of the participants was measured through a multiple-choice recognition test and a production test in which participants were required to use the target words in sentences. Findings of the study showed that bilingulized entries contributed to performance of the participants significantly better than monolingual entries in both comprehension and production tasks. When the bilingualized and bilingual entries were compared, it was found that the bilingualised entries yielded significantly better results in recognition test. However, production task results put forward approximately same results. In the second step, the participants were divided into three as unskilled, average, good dictionary users according to their scores on two tests. The analysis of the data showed that that for the unskilled participants, bilingualized entries resulted in better results than the other two in production test. For the average dictionary users, bilingualized entries gave significantly better results than bilingual entries in comprehension test. On these findings, the researchers claimed that bilingualized dictionaries were suitable for learners with different proficiency levels.

Some research in the field has focused on dictionary use habits of language learners. The study of Baxter (1980) is an example in this vein. The participants included university-level students from different departments. They were given a questionnaire to examine their dictionary behavior. The findings of the study showed that the participants preferred bilingual dictionaries in high school overwhelmingly. In university, the participants who used monolingual dictionaries were mostly English majors. Non-English majors claimed that they referred to monolingual dictionaries rarely. What is more interesting, the participants attached the greatest importance to the bilingual dictionaries among other language learning sources such as grammar books.

The study of Hulstijn et al. (1996) was carried out to examine dictionary look up behavior of language learners, the relative effectiveness of marginal glossing, dictionary use and the effect of target word frequency on vocabulary gain. In this

study, advanced Dutch learners of French were asked to read a French short story in one of three conditions. These conditions included marginal glossing (providing participants with L1 translations of unknown words on the margins of the reading text), dictionary (opportunity to use a bilingual dictionary) and control (no dictionary and no marginal glosses). After the participants finished reading the short story in one of the three conditions, they were tested on the target words which had occurred either once or thrice in the reading text. In addition, participants in the dictionary group were asked which target words they looked up while reading the text. The results of the study showed that marginal glossing group gained significantly more vocabulary when compared with dictionary and control groups. As to the dictionary look up behaviors, the participants in dictionary group rarely looked up the target words. However, when the participants in the this group looked up the target words in their dictionaries, their chance of retaining the target words was much greater than the marginal glossing group. Lastly, the words which appeared three times were retained significantly better than those that occurred only once. The researchers suggested that teachers should provide the meaning of unknown words through marginal glossing in reading activities, and they should be careful to choose reading texts in which the target words recur as frequently as possible.

2.11.1.3. Research on Different Metacognitive Strategies

Metacognitive Strategies, which are related with language learners' managing their own vocabulary development, have also been studied much in the field. To begin with the Rasekh and Ranjbary's (2003) research, they examined the effect of Metacognitive Strategies on vocabulary proficiency. Participants were university-level EFL students taking intensive English course. They were divided into two as experimental and control group. Both groups attended a ten-week language program, and used the same course books. The difference between the control and experimental groups was that researchers trained experimental group on Metacognitive Strategies in addition to other VLS while the control group didn't receive any Metacognitive strategy training. Before undergoing any procedure, participants were given a pre-test which included some words that would take place in their language courses. After the completion of procedures, participants were given a post-test which included the same words with the pre-test. The findings of the study showed that there were no significant differences between the control and

experimental group in terms of their vocabulary knowledge before undergoing any procedure. However, post-test results showed that experimental group learned significantly more words. Relying on these findings, the researchers claimed that using Metacognitive Strategies may contribute to vocabulary development greatly.

Cubukcu (2008) studied the effect of Metacognitive strategy training on reading comprehension and vocabulary development. The participants included teacher trainees in an English department. They were assigned to two groups as control and experimental. Both groups attended a five week course during which the participants read passages chosen from a coursebook, and did the exercises of these reading passages. The difference of the experimental group was that participants in this group received Metacognitive strategy training while those in the control group didn't. The Metacognitive Strategies that were taught in the training sessions were searching out information according to one's own reading goals, being able to choose the best strategy or combination of strategies to infer the meaning of an unknown word in a reading text. The testing instruments included a multiple choice vocabulary test and a reading comprehension test, and the same tests were given as pre and post-test. The pre-test results pointed out that there were no significant differences between the control and experimental group in terms of their reading comprehension and vocabulary test scores. This means that control group and experimental group were homogenous before experimental group took Metacognitive strategy training. When the posttest results of the two groups were analyzed, it was seen that experimental group got significantly better results both in reading comprehension and vocabulary test. The implication of the study was that Metacognitive Strategies might be very important for vocabulary building and reading comprehension skills.

In the same vein, Zhao (2009) examined the relationship between Metacognitive Strategies and vocabulary learning of college-level students. The study was experimental in its design. The participants in the control group received training on consulting dictionary, repetition, guessing from context, word card, association, using word part strategy, consolidating the word by applying the word to conversation and writing strategies. On the other hand, the participants in the experimental group received Metacognitive strategy training in addition to above-mentioned strategies. A pre-test was given to the experimental and control groups to ensure that they were homogenous in terms of their vocabulary proficiency level before undergoing any treatment. After the completion of the trainings, both groups

were given a posttest which included words selected from those which were thought during their lesson hours. In addition to this test, a questionnaire was given to the members of the experimental group to study their Metacognitive strategy use behaviors. The results of the pre-test showed that there were no significant differences between the control and experimental group in terms of their vocabulary proficiency before they underwent any procedure. However, the results of the post-test showed that experimental group outperformed the control group significantly. As to the results of questionnaire, it was seen that there was a substantial amount of increase in experimental group's making use of the Metacognitive strategies after the training process.

When all these findings are taken into consideration, they point out that Metacognitive Strategies can have very beneficial effects on language learners' vocabulary development, and these strategies can be thought to learners successfully if the necessary importance is attached to teaching them by teachers as can be inferred from the study of Zhao (2009).

2.11.1.4. Research On Different Memory Strategies

There are also various studies which have examined the relative effectiveness of Memory Strategies on language learners' vocabulary proficiency. It is interesting to note that lots of these studies take keyword strategy as their focus. This situation implies that researchers attach a great deal of importance to keyword strategy.

To begin with the study of Sagarra and Alba (2006), they examined the relative effectiveness of keyword, semantic mapping and rote-memorization strategies in terms of their contribution to vocabulary learning. The participants included beginner-level Spanish learners. They were required to learn some words which were divided into three sets, and each set were required to be learnt with one of the above mentioned strategies. The participants were asked to learn the rote-memorization set through writing down and repetition. The words in keyword set were required to be learnt by connecting them to a L1 word. Lastly, the semantic mapping was learnt through constructing a diagram which included a target word in the center and semantically related words around it. After the participants studied the words, they took one immediate and one delayed post-test to assess how much of the target vocabulary they retained. The analysis for the immediate test showed that

keyword method was significantly more effective than the other two, and rote-memorization yielded significantly better results than semantic mapping. The analysis for the delayed post-test yielded the same results. The researchers concluded that these findings testified to the value of keyword strategy for low-level language learners.

The study of the Brown and Perry (1991) examined the relative effectiveness of keyword, semantic and keyword-semantic strategies. Participants included two levels of proficiency groups, i.e., low and high. These two proficiency groups were divided into three treatment groups in themselves as keyword, semantic, and keyword-semantic. The keyword groups were presented with some target words, their definitions and a keyword. The semantic groups were provided with the target words, their definitions, examples of their usage in a sentence and an exercise which asked them to use the target word in a sentence. Lastly, the keyword-semantic groups were given the target words, their definitions, keywords, example sentences and vocabulary exercises. The participants took four days of vocabulary instruction under one of the three conditions. Then, they were given an immediate and a delayed post-test to assess their vocabulary growth. In order to analyze the data, MANOVA test was run taking the results of immediate and delayed post-tests as dependant variables and treatment group and proficiency level as independent variables. MANOVA test showed that group main effect was significant. The follow up pairwise comparisons showed that keyword-semantic groups gained significantly more words than the keyword groups. No other significant differences were found among other groups. Relying on these findings, the researchers claimed semantic-keyword strategy could be a good choice as a VLS for language learners of different proficiency levels.

Semantic mapping is another Memory strategy which has attracted much attention. The research carried out by Morin and Goebel (2001) is an example of such studies. The participants included beginner-level adult learners of Spanish, and they were divided into two as control and experimental groups. Control group learned vocabulary through communicative activities included in their coursebooks. On the other hand, the experimental group learned the vocabulary through semantic mapping in addition to the vocabulary activities in their course books. Participants' vocabulary development was assessed by two different instruments. The first instrument required the participants to give definitions for the target words and state how familiar they were with the target words. The other instrument asked learners to

cluster target words under thematic headings. The findings showed that even if the performance of the two groups were approximately same for the definition supply test, the number of items which were claimed not to be familiar at all were substantially fewer for the experimental group. The study also indicated that the experimental group did significantly better in clustering the words under thematic headings. These findings imply that semantic mapping can increase a sense of familiarity with unknown words, and this familiarity can facilitate the acquisition of these words later. What is more, semantic mapping can be a useful strategy in that it helps language learners to see the relations between words as it was shown by the findings of clustering test.

However, there are also other studies which have found out that learning semantically related words as it is the case with semantic mapping strategy can hamper vocabulary learning. Waring's (1997) study is an example of this case. In this study, the researcher asked the Japanese speaking participants to learn different sets of word pairs. These included either semantically related words or unrelated words. The criterion for evaluating the performance of participants was the duration of the time to learn all the words in each set. The findings of the study showed that semantically related words were learned significantly slower than unrelated words. The researcher concluded that the common practice of giving the learners semantically related words (color words, body part words etc.) and expecting them to learn them might not be a good idea.

The last Memory strategy to be dealt with in this section is word-part strategy. In this strategy, learners use morphological system and especially derivational system of a given language. In this way, learners are expected to have a powerful tool for predicting the meaning of unknown words and to expand their vocabulary knowledge. To examine this strategy, Freyd and Baron (1982) examined whether relatively more proficient language learners are more successful in discerning the roots and suffixes to predict the meaning of unknown words than average learners. Firstly, the researchers asked the participants to provide the meaning of some root words (e.g. book, pen) and derived words (e.g. successful, meaningless). In the second task they were asked to learn the meaning of nonsense word pairs. Half of the word pairs included derivational words which were derived in a systematic way (e.g. skaf = steal, skaffist = thief), and the other half were unrelated root words (e.g. jeve= study, kruttist= pupil). The findings for the first task showed

that good and average learners performed similarly in root words. However, the good learners performed much better in the derived words. As to the second test, more proficient learners remembered systematically derived word-pairs much more successfully than unrelated words while the average learners performed similarly for these two different word sets. The researchers concluded that more proficient learners made use of morphological rules more successfully than average learners, and word-part strategy might be good option for vocabulary building especially for proficient language learners.

However, Freyd and Baron's (1982) positive findings about the value of the word-part strategy is shaded by Kocic's (2008) study. In this study, the researcher studied the effect of various kinds of synoformy effects in vocabulary acquisition. However, particular interest here is the effect of presenting morphologically related words in identification of their meanings. In order to examine this effect, the researcher provided advanced-level English Language and Literature majors morphologically related word pairs and asked them to find out the meaning of them in a multiple-choice test. In the second test, they were required to fill in gaps in some sentences with one of the words in these word pairs. The findings showed that the number of mistakes were substantial in two tests when the proficiency level of the participants were taken into account. On these findings, the researcher concluded that providing morphologically similar words to language learners may pose a difficulty in vocabulary learning.

2.11.1.5 Research on Different Cognitive Strategies

Cognitive Strategies mostly include rote memorization of vocabulary. To ascertain the value of rote memorization, Prince (1996) compared rote memorization with contextual learning. The participants included low and high-level EFL learners at a university. The participants in the rote-memorization group were asked to learn the target words through translations provided by the researcher. On the other hand, the participants in the contextual group were required to infer the meaning of these words from the sentences designed for each word. Both groups took one translation provision test in which they were asked to provide a French equivalence of the target words and one sentence completion test in which they filled in the gaps in sentences with the target words. Overall performance of the participants in the two tests showed that the rote-memorization group did better than contextual group. The

researcher claimed that even if the rote-memorization group did significantly better in learning the target words, and rote memorization has a certain value for vocabulary learning, teachers should not dismiss the values of contextual learning such as its ability show learners that words primarily exist to be used contextually.

2.11.2 Research on Overall VLS Use

There are also studies which have been carried out in order to examine VLS use habits of L2 learners or those studies which have attempted to examine the relationship between these strategies and L2 learners' vocabulary proficiency.

In this vein, Sanaoui (1995) carried out one exploratory study and two case studies with university level L2 learners. In the exploratory study, participants were required to keep diaries to record their approaches to vocabulary learning and to gather at certain intervals to discuss their approaches to vocabulary learning with the researcher. When the researcher analyzed the diaries and the discussions she held with participants, she found that the participants fell into two groups: those who approached vocabulary learning in an organized way and those who didn't. The organized way of vocabulary learning included trying to learn new words routinely, writing down these words and reviewing them at certain intervals. These strategies were not used at all or used at very low levels in the unorganized approach. After carrying out the exploratory research, the researcher carried out two case studies to verify these findings and to find out whether proficiency level may be a determining factor in VLS use habits. The case studies included L2 learners of different proficiency groups, and they had a similar design with exploratory study. The findings of these two case studies were consistent with the exploratory study. The students fell into two groups as those who pursued a structured approach to vocabulary learning and those who did not. The participants who were included in the structured study engaged in self-initiated activities, recorded new words and reviewed them. The participants in the other group did not make use of these strategies or they used them in negligible degrees. It was also found that the advanced-level participants seemed to follow the structured approach.

Fan (2003) studied how frequently L2 learners used VLS, how useful they perceived them, and the relationship between VLS use and vocabulary proficiency. The participants included adult L2 learners. The instruments included a VLS questionnaire based on taxonomies of several researchers and Nation's Vocabulary

Levels Test as an indicator of participants' vocabulary proficiency. The findings of the study showed that strategies most often used and perceived as most useful were contextual learning and using dictionaries. Strategies used least often and perceived as least useful were learning words through keywords and wordlists. The results showed that there were significant differences among different categories of strategies in terms of frequency of use. The mean scores of known words category (e.g. learning the new usage of known words) were significantly higher than all of the other categories, and the mean scores for analysis and dictionary categories were significantly higher than sources and repetition categories. The last two categories were used significantly higher than grouping, association and management categories in turn. There were also significant differences among VLS categories in terms of their perceived usefulness. The results showed that mean score of management category was significantly higher than that of repetition and grouping, and the mean scores of these two categories were significantly higher than that of association. These findings show us that differences may occur between ESL learners' strategy use and their perception of these strategies in terms of usefulness. In order to find answer to the question of which strategies are used most often by the most proficient learners, participants were divided into three groups according to their proficiency levels. The results showed that 18 strategies were used significantly more often by the most proficient group than the other groups. These strategies included one management, four guessing, five dictionary, one analysis, and three known words strategies. The results also showed that two strategies were used significantly more by low-proficiency group. These were writing down words repeatedly and using sound and meaning associations. Basing his views on these findings, Fan (2003) claimed that the strategies which were used most often by the most proficient language learners should be promoted by language teachers. Another analysis was run to assess which strategy categories are relevant to high and low- frequency words. The results showed that strategies which were related with guessing the meanings of words were especially relevant to learning high frequency words, and exploiting the sources for learning new words was found to be relevant to learning low-frequency words. According to the researcher, this finding may be an indication of low-and high frequency words should be dealt with differently by language learners.

Sabo et al. (1999) explored ESL and EFL learners' approaches to vocabulary learning and the relationship between these approaches and vocabulary

proficiency. The study included adult ESL and EFL learners. The researchers used VLS questionnaire based on the findings of the research carried out by Sanaoui (1995). The five variables which were expected to classify the students in terms of their approach to vocabulary learning were time, learner independence, vocabulary notes, review and dictionary use. In order to assess participants' vocabulary proficiency, Meare's (1992) Levels Test and a cloze test were used. The results showed that there were significant differences between the ESL and EFL group in terms of learner independence (ESL group had a higher mean score) and review variables, which were about reviewing new vocabulary (EFL group had a higher mean score). Before finding out the relationship between vocabulary proficiency and approaches to vocabulary learning, participants' were arranged into groups by cluster analysis in order to figure out their profiles in terms of their approach to vocabulary learning. After clustering process, the related data was analyzed to find out whether there were significant differences among groups in terms of their' vocabulary proficiency. The results showed that the groups who got significantly higher scores in vocabulary test were those who had higher mean scores in all of the five above-mentioned variables. An interesting finding was that one of the groups got a medium score in vocabulary proficiency test even if it had high scores in four out of five variables. The exception was independence variable. The researchers concluded that learner independence might be especially relevant to high vocabulary proficiency. The other groups which got medium vocabulary proficiency scores had medium mean scores in all of the five variables.

Gu and Johnson (1996) examined the VLS used by language learners and then correlated the findings of this analysis with participants' vocabulary size and English proficiency. The results of the correlations showed that positive correlations existed between vocabulary size and self initiation strategies (e.g. finding out personally relevant and interesting vocabulary), activation strategies (e.g. deliberately using words that had been studied), selective attention (e.g. knowing which words should be given attention to), dictionary look up strategies, meaning oriented note taking strategies (e.g. writing down meanings and synonyms of the target words). Visual repetition (e.g. memorizing spelling and writing the word repeatedly) correlated with vocabulary size negatively. In general, strategies which include rote-memorization or paying attention to formal characteristics of target words didn't correlate significantly with vocabulary size.

Barcroft (2009) applied a very different design to find out relationship between VLS and vocabulary proficiency. In this study, adult learners of Spanish studied with word-picture pairs in order to learn the meaning of these words. After this process, they were asked to write down the strategies they used while learning them, and state which strategy they used most often. Then, they were given a vocabulary test on the related words. The findings showed that L2-L1 translation strategy, which was about trying to remember the translation of a given target word, was the most often used strategy. Second finding of the study was the fact that Memory Strategies resulted in significantly higher vocabulary recall than L2-L1 translation and repetition strategies. It was also found that positive correlations existed between the number of strategies used by learners and success in recall of the target vocabulary. The researchers concluded that language learners should be informed about the fact that strategies they prefer most might result in low amounts of vocabulary learning, as was the case with L2-L1 translation. The other implication of the study was language learners should make use of a wide range of VLS because such an approach to vocabulary learning results in greater learning performance.

Lawson and Hogben's (1996) study made use of thinking aloud method to gather information about VLS use habits of language learners. In data collection process, the researchers asked participants to tell which strategies they were using while learning some words that were provided by the researchers. After that, participants were given a recall test on the target words. The findings showed that repetition strategies were the most often used strategies. The second finding was that the participants who retained significantly more words were those who used a wide range of strategies. Lastly, elaboration strategies (e.g. finding relationships between the target words and already known words) and repetition strategies correlated positively with vocabulary retention.

Schmitt (1997) carried out a study to examine VLS use habits of Japanese EFL learners, and how useful they believed these strategies to be. The participants included a cross section of Japanese learners from junior high school to university-level students. The researcher made use of a questionnaire developed by himself. The findings showed that the most often used strategies by the participants were using bilingual dictionaries, guessing from context, asking classmates for meaning, verbal repetition, written repetition, studying the spelling, saying new words aloud, taking notes in class, studying the sound of a words and using word lists. The least often

used strategies were checking for cognates to guess the meaning of unknown words, using physical actions, using cognates to consolidate meaning and using semantic maps. As to usefulness of VLS, using bilingual dictionaries, asking teacher to learn the meaning of unknown words, analyzing pictures or gestures, saying new words aloud, written repetition, connecting words with other words, studying spelling, taking notes in class and verbal repetition were believed to be the most useful strategies by the participants. The least helpful strategies were skipping a new word, imaging words' meaning, using cognates to consolidate meaning, using keywords and imaging word forms. The researcher concluded that the existence of six common strategies between the most frequently used VLS and the most helpful VLS points to the fact that there is an overlap between participants' VLS use habits and their beliefs about these strategies in terms of usefulness to some extent. On the other hand, the existence of the differences between these lists points to the fact that language learners can see value in strategies they don't use.

2.11.2.1 Research on Overall Strategy Use in Turkey

The question of VLS use habits of language learners and their relation to vocabulary proficiency has also attracted considerable attention among the researchers in Turkey. To examine these matters, Şener (2003) conducted a study which included university-level students who had an advanced language proficiency. In order to assess their VLS preferences a questionnaire developed by the researcher on Schmitt's (1997) taxonomy were given to the participants. Participants also took Nation's Vocabulary Levels Test. At the first step, the mean scores for each strategy category were calculated. The results showed that the three most preferred strategy categories were Determination, Memory, and Metacognitive Strategies in order. The least preferred strategy categories were Social and Cognitive Strategies. In order to find out the relationship between vocabulary learning strategies and vocabulary proficiency of the participants, correlation analysis was run. The results showed that there was a significant and positive correlation between the vocabulary size of the learners and Determination Strategies. Metacognitive Strategies also correlated with vocabulary size significantly and positively. As to the practical implications of the study for vocabulary learning and teaching, the researcher advised that the teachers should encourage learners to make use of Metacognitive and Determination Strategies because they can contribute to their vocabulary proficiency significantly.

The study conducted by Ekmekçi (1999) examined the vocabulary learning strategies used by Turkish EFL learners, and the effects of these strategies on their language learning outcomes. The participants included university-level students from an ELT department. The researcher made use of Vocabulary Learning Strategies Questionnaire by Gu and Johnson (1996), TOEFL exam as an indicator of general English proficiency and Nation's Vocabulary Levels Test as it was adapted by herself to assess the vocabulary size of the participants. The findings of the study showed that participants made use of contextual learning strategies and dictionary strategies to a great extent. The strategies which included rote learning such as repetition of words were not favored by the participants. In order to see the relationships between VLS and language learning outcomes, the researcher correlated participants' replies to VLS Questionnaire with their scores in Vocabulary Levels Test and TOEFL test. The correlation results put forward positive correlations between vocabulary size and dictionary look up, note-taking, word-structure analysis and contextual learning strategies. The correlations between TOEFL test scores and VLS yielded only one positive correlation for word-structure analysis strategies. In order to measure predictive value of VLS for vocabulary size and general vocabulary proficiency, regression tests was run. The results for these tests showed that word-structure analysis strategies were positive predictor for general English proficiency, and selective attention strategies (e.g. knowing which words are important to learn) for vocabulary size.

Ay (2006) conducted a study in order to investigate vocabulary learning strategies employed by high school-level L2 learners. Besides, the relationships between these strategies and L2 learners' personal characteristics were surveyed. The related data were collected through the administration of a personal information form and a VLS questionnaire developed by Şener (2003). The findings of the study showed that the five most frequently used strategies were remembering a word which was learnt before when its explanation is heard or read, learning the meaning of a word better when it is looked up in a picture dictionary, using bilingual dictionaries, guessing meaning from context and memorizing words better when they are matched with pictures. The five least often used strategies were keeping a diary in English, using word cards, using monolingual dictionaries, writing down words when they occur in TV and using semantic grids. The results of the study also showed that the total amount of VLS used by the participants varied significantly in terms of

mother's occupation. As to the analysis of the vocabulary learning strategies with regards to other variables, it was found that the amount of VLS used by the participants did not vary significantly in terms of gender, mother's educational background, father's educational background, the number of brothers and sisters in the family, father's occupation, economic condition of the families, achievement in English in the first term of the year, having a computer at home and having a room at home.

Torun (2010) studied the effect of VLS training on L2 learners' VLS use habits and vocabulary proficiency. To examine these matters, the researcher adopted an experimental research design in accordance with the aims of the study. The participants in the study included university-level preparatory students. They were divided into two as control and experimental groups. Before the experimental group underwent any treatments, both groups were given a questionnaire to assess their VLS use habits and a vocabulary test as an indicator of their vocabulary proficiency. Pre-test results showed that there were no significant differences between the control and experimental groups with regards to their vocabulary proficiency. After ensuring the homogeneity of both groups, the researcher proceeded with treatment procedure. In the treatment process, the participants in the experimental group were trained on VLS and did exercises which allowed them to use these VLS in their regular class hours. However, the participants in the control group did not take any VLS training. After the treatment process, both groups took the questionnaire and vocabulary test again. The results showed that there was an increase in the experimental group's making use of VLS when compared with the control group. In addition to that, the experimental group got significantly higher mean scores than the control group in vocabulary test. The researcher concluded that VLS training proved to be effective on L2 learners' VLS use and vocabulary proficiency.

CHAPTER THREE
METHODOLOGY

3.1. PRESENTATION

This chapter will present an overview of the research design, subjects, instruments used in data collection, data collection procedure and data analyses.

3.2. RESEARCH DESIGN

The aim of the current study was to examine vocabulary learning strategy (VLS) use habits of preparatory students at Gaziantep University Higher School of Foreign Languages, their beliefs about VLS in terms of usefulness, and whether there were any relationships between VLS and their vocabulary proficiency. In order to achieve these aims, the study employed a descriptive research design. The data was collected through measurable instruments (i.e. Vocabulary Learning Strategies Questionnaire by Şener, 2003 and Vocabulary Levels Test by Nation, 1990), and they were analyzed quantitatively.

3.3. POPULATION AND SAMPLING

The subjects of the study included 252 preparatory students at Gaziantep University Higher School of Foreign Languages. There were 1296 students at the school in 2009-2010 academic year. The participants were mostly 17-18 years old, and they were from four different English proficiency levels (Upper-Intermediate, Intermediate, Pre-Intermediate and Beginner). The participants were allocated to different proficiency levels according to the results of a placement test administered at the beginning of the academic year. The number of the participants from each proficiency level is given in Table 3.1.

Table 3.1. Descriptive Statistics for Proficiency Levels of the Participants

	Frequency	*%*
Upper Intermediate	63	25
Intermediate	63	25
Pre-Intermediate	62	24.6
Beginner	64	25.4
Total	252	100

As Table 1 shows, proportion of the participants in each proficiency level is approximately same. Of the participants 63 (25%) were Upper-Intermediate, 63 (25%) were Intermediate, 62 (24.6%) were Pre-Intermediate and 64 (25.4%) were Beginner-Level English language learners.

The students at Higher School of Foreign Languages are mostly from Engineering and Medicine faculties and Vocational School of Tourism-Hotel Management because they are required to take English preparatory class before continuing their education. In the preparatory class, Beginner, Pre-Intermediate and Intermediate level students take 25 hours of intensive English course a week while Upper-Intermediate group take 20 hours. Lessons are designed in a way that would increase students' general English skills. In addition, students also take academic writing lessons in which they are thought how to write paragraphs and essays that would benefit them in their future educational and professional life.

3.4. INSTRUMENTS

In order to carry out the research two instruments were used. The first instrument was "Vocabulary Learning Strategies Questionnaire" (VLSQ) developed by Şener (2003). The second one is "Vocabulary Levels Test" (VLT) which was developed by Nation (1990) and adapted by Ekmekçi (1999).

3.4.1. Vocabulary Learning Strategies Questionnaire (VLSQ)

"Vocabulary Learning Strategies Questionnaire" (see Appendix A) used in the current study was adapted by the researcher from Şener's (2003) questionnaire and it is based on Schmitt's (1997) taxonomy. While discussing why he developed a VLS taxonomy, Schmitt' (1997: 203) claims that "the lack of any comprehensive list

or taxonomy in this specific area" has made him conduct a research on this matter to put forward an inclusive taxonomy.

The original questionnaire developed by Şener (2003) includes 58 items. Each item includes one VLS and respondents are required to reply how often they use the related strategy on a Likert-type scale ranging from "never" to "always". In order to fit the questionnaire with his own research objectives, the researcher adapted the questionnaire to some extent. First of all, examples were added to some items to make them more comprehensible. In addition to this, 8 items were added to the questionnaire which included some strategies not existing in the original questionnaire by Şener (2003). These additional items were added to the questionnaire as a result of consultations with several English teachers and the review of the related literature. They include 13, 28, 29, 31, 32, 34, 36 and 47 numbered items. In addition to these items, 5 anchor items were incorporated into the questionnaire to eliminate those participants who responded to the questionnaire items without reading or paying enough attention to them. Anchor items were developed by transforming some items in the questionnaire into their negative forms. For example, "I don't use rhyme in order to learn words" was an anchor item for "I use rhyme in order to learn words". They consist of 45, 48, 56, 67 and 70 numbered items. It was expected that by comparing answers given to such pairs of items, the above mentioned students would be detected and excluded from research so that more reliable data could be collected.

As it was mentioned in the preceding chapters, one of the aim of the current study was to examine how useful the participants believed VLS to be which were included in the questionnaire. In order to conduct such an analysis, a usefulness scale which included three options ("useful", "not sure" and "not useful") was added to next to the Likert-type frequency scale, and the participants were asked to state how useful they believed the VLS in the questionnaire to be by choosing one of these three options.

While discussing how he categorized VLS, Schmitt (1997:205) claims that he took mostly Oxford's (1990) classification of learning strategies as a model because it "seemed best able to capture and organize the wide variety of vocabulary learning strategies". Accordingly, the VLS in VLSQ are divided into two major categories as Discovery and Consolidation strategies. There are also subcategories of these two major categories. Discovery strategies are divided into two as Social and

Determination strategies. On the other hand, Consolidation strategies are categorized as Memory, Cognitive, Metacognitive and Social strategies. The information about which VLS are categorized under which VLS categories is given in Appendix C.

The reliability of the questionnaire was found to be .891 by Cronbach's Alpha.

3.4.2. Vocabulary Levels Test (VLT)

In order to examine vocabulary proficiency of the participants, Nation's VLT (1990) as it was adapted by Ekmekçi (1999) was conducted (see Appendix B). Read (1997:313) discusses the aim of this test stating that:

> "The purpose of the test is to give classroom teachers a quick, practical way of profiling their students' vocabulary knowledge at the beginning of a course, in order to provide a basis for planning a vocabulary teaching either for the class as a whole or for individual learners within it."

Whatever it might be the original intent of its developer, the test has been used as a measure of vocabulary proficiency by innumerable studies (Şener, 2003; Ekmekçi, 1999 etc.).

VLT is divided into five levels. At 2000 and 3000-levels, the knowledge of high frequency words is assessed. 5000-level includes words which have medium frequency. 10000-level is comprised of words with very low frequency levels. At University level, which includes words that L2 learners can come across through their university life, "academic" vocabulary knowledge is assessed.

Each level consists of six parts and in each part participants are asked to match six words with three definitions as in the example below:

```
1 business
2 clock        _____ part of a house
3 horse        _____ animal with four legs
4 pencil       _____ something used for writing
5 shoe
6 wall
```

This means that 18 words are tested at each level. The total number of words assessed in overall of the test is 90.

Because of the fact that the VLT does not require test takers to answer questions in any productive manner, it measures vocabulary proficiency at reception level. The researcher chose this test as a measure of participants' vocabulary

proficiency because it can test a lot of words in a relatively short time, it is easy to mark, and did not allow much room for finding the correct answers by chance.

The reliability analysis showed that the VLT was reliable as was measured by Cronbach's Alpha (.931).

3.5. DATA COLLECTION AND ANALYSIS

In this part, the piloting procedure of the instruments, data collection, and data analysis will be given in detail.

3.5.1. Piloting Procedure

Piloting procedure was undertaken to see how much time was needed to complete the instruments and whether the items in the instruments posed any comprehension problems on the part of the participants. Another aim of the study was to examine the reliability of the instruments. Before administering the instruments for piloting procedure, the researcher got the permission of the administration of Gaziantep University Higher School of Foreign Languages. After the permission was granted, the researcher proceeded with the piloting procedure. The researcher visited four randomly chosen classes and informed them about the study and instruments. The instruments were given to the students with two weeks of interval. They were required to complete the instruments anonymously. The instruments were numbered by the teachers of each class so that the data collected through instruments could be matched. The reliability analysis with Cronbach's Alpha showed that both of the instruments were reliable (.889 for VLSQ and .891 for VLT).

3.5.2. Data Collection

VLT and VLSQ were administered in the spring term of 2009-2010 academic year. Both of the instruments were administered during the regular class-hours of the participants. Before the administration process, the researcher got the permission of the Higher School of Foreign Languages as in the piloting procedure, and the researcher informed the teachers of those groups which would take both "VLT" and "VLSQ" about the study, the instruments they would administer in their classes and how they would administer the instruments. The teachers handed out each instrument with approximately two weeks of interval. The teachers handed out

VLT first and asked students to complete it anonymously. In accordance with the aims of the study, VLT sheets were numbered by the teachers of each class so that the researcher could match the results obtained from this instrument for each participant with those from VLSQ. The procedures for the administration of the VLSQ were same.

3.5.3. Data Analysis

The data collected by means of the instruments was examined by using SPSS 15. First of all, those participants who answered the anchor items in VLSQ contradictorily were eliminated from the study because this situation was an indication of the fact such participants responded to VLSQ items without reading or paying enough attention to them. Next, the reliability of the instruments was measured by Cronbach's Alpha, and they were found to be reliable (.891 for VLSQ and .931 for VLT). After ensuring the reliability of the instruments, a number of statistical tests were run to answer the Research Questions.

To assess VLS use habits of the participants and their beliefs about these strategies in terms of usefulness, the mean scores for participants' responses to VLSQ were calculated for each item both for frequency and usefulness scales at the first step. At the second step, mean scores of participants for each VLS category (i.e. Determination, Social/Discovery, Social/Consolidation, Memory, Cognitive, Metacognitive) were calculated with regards to frequency and usefulness scales, and several one-way ANOVA tests were run on these mean scores by taking VLS categories as independent and the mean scores for frequency of use and usefulness scales as dependant variable. Before examining the relationship between VLS and vocabulary proficiency of the participants, another series of One-way ANOVA tests were run to compare vocabulary proficiency of four different proficiency groups (i.e. Upper-Intermediate, Intermediate, Pre-Intermediate, Beginner) based on their mean scores in VLT. Then, the replies of all participants to VLSQ with regards to how frequently they used each VLS category were correlated with their scores in VLT by Pearson correlation test to see the relationships between VLS and participants' vocabulary proficiency. Besides, getting a better insight into the relationship between VLS and L2 learners' vocabulary proficiency led the researcher to conduct several multiple regression tests taking VLS categories as independent and the scores of the participants in VLT as dependant variable. Correlation and multiple regression

analysis tests with the same variables were also run for each proficiency group on the thinking that they might put forward different findings than we got for all of the participants.

CHAPTER FOUR
RESULTS AND DISCUSSION

4.1. PRESENTATION

This chapter will present the statistical analyses of data collected by means of Vocabulary Learning Strategies Questionnaire (VLSQ) and Vocabulary Size Test (VST) in order to answer the research questions. Firstly, means and standard deviations for the five vocabulary learning strategies (VLS) which were used most/least often and believed to be most/least useful by the participants will be given. Next, mean scores of the participants for each VLS category in terms of their frequency of use and how useful the participants believed them to be will be given. Then, one-way ANOVA test results for these mean scores will be put forward. After that, mean scores of each proficiency group (Upper-Intermediate, Intermediate, Pre-Intermediate, Beginner) in VLT and One-way ANOVA test results for these mean scores will be presented to see whether our proficiency groups differentiated significantly in terms of their vocabulary knowledge. Lastly, the results of the correlation and multiple regression analyses, which were conducted to see the relationship between VLS and participants' vocabulary proficiency levels, will be summarized.

4.2. RESULTS OF THE STUDY

***Results for* Research Question # 1** Which VLS were used most often and believed to be most useful by the participants?

In order to answer this research question, the means and standard deviations for the responses of participants to each item in "VLSQ" were calculated in terms of frequency of use and participants' beliefs about them with regards to usefulness (see Appendix C; Appendix D). Then, the five VLS which were used the most often and believed to be the most useful by them were discerned. The results are summarized in Table 4.1 and Table 4.2

61

Table 4.1. Means and Standard Deviations for the Most Often Used VLS

S. No	Strategy	Strategy Category	M	SD
61	When I learn new words in the class, I write them anywhere available	COG	3.88	1.21
40	When I read or hear the explanation of a word, I remember the word I have learned before.	MEM	3.79	1.02
9	If I do not know the word in a written text, I try to guess the meaning of it from the surrounding sentences	DET	3.75	.98
2	When I do not know the meaning of a word, I use a bilingual dictionary.	DET	3.71	1.00
63	I pay attention to the words of native speakers when I speak with them	MET	3.64	1.25

As can be seen in Table 4.1, the most often used VLS by the participants was writing down new vocabulary (M=3.88). This finding shows us that there was a strong affinity among the participants for learning new vocabulary through writing them down. The second most often used strategy was remembering a word when its explanation is read or heard (M=3.79). The other most often used strategies included guessing words from context (M=3.75), using bilingual dictionaries (M=3.71) and paying attention to words uttered by native speakers (M=3.64). These findings suggest that the most often used VLS by the participants covers a wide range from writing down words to guessing word meanings from context. The most often used VLS in the current study shares three strategies with those studies conducted by Ay (2006) (i.e. remembering the words when its explanation is read or heard, guessing words from context, and using bilingual dictionaries), three strategies by Schmitt (1997) (i.e. using bilingual dictionaries, guessing from textual context, writing down new words), two strategies by Fan (2003) (i.e. contextual learning and using dictionaries) , and two strategies by Ekmekçi (1999) (i.e. contextual learning and using dictionaries). So, we can claim that the findings of the current study with regards to most often used VLS overlapped with the above-mentioned studies to a considerable extent.

Table 4.2. Means and Standard Deviations for the VLS Believed to be Most Useful

S. No	Strategy	Strategy Category	*M*	*SD*
9	If I do not know the word in a written text, I try to guess the meaning of it from the surrounding sentences	DET	2.83	.44
61	When I learn new words in the class, I write them anywhere available	COG	2.82	.47
62	I do exercises in the special vocabulary sections of the text books.	COG	2.76	.53
36	If the words takes place in phrasal verbs, I learn these phrasal verbs, too. (e.g. take→take on, take off, take up)	MEM	2.75	.52
63	I pay attention to the words of native speakers when I speak with them	MET	2.75	.51

As to the VLS which were believed to be the most useful, Table 4.2 puts forward that participants believed that guessing the meaning of new vocabulary from context (M=2.83) and writing down new vocabulary (M=2.82) was the two most useful strategies. Writing down vocabulary also got one of the highest usefulness mean scores in Schmitt's (1997) study. The other strategies in this category included doing vocabulary exercises in text books (M=2.76). learning the phrasal verbs in which the target words takes place (M=2.75) and paying attention to the words uttered by native speakers (M=2.75).

When the lists for VLS which were used most often and which were believed to be most useful are compared, it is seen that they share three strategies. These strategies are guessing the meaning of unknown words from context, paying attention to the words uttered by native speakers and writing down new vocabulary. From this point of view, we can claim that there is a congruency between the participants' beliefs about VLS in terms of usefulness and how often they used them to a certain extent as suggested by Tanaka and Ellis (2003). However, the existence of discrepancies between the above lists demonstrate that the participants believed some strategies to be very useful even if they did not used them very frequently or used some strategies very frequently not believing in their usefulness in the same proportion.

Results for **Research Question # 2** Which VLS were used least often and believed to be least useful by the participants?

Table 4.3. Means and Standard Deviations for the Least Often Used VLS

S. No	Strategy	Strategy Category	*M*	*SD*
57	I keep a diary in English	COG	1.29	.74
43	When I learn new words with similar meanings, I draw a grid to remember the meaning. |	hands	sky	weather | | Clean | ✔ | | | | Clear | | ✔ | ✔ |	MEM	1.33	.66
34	I learn the words writing them on a sheet in a particular shape. e.g. animal Δ dog cat	MEM	1.44	.92
8	If I do not know the meaning of a word, I try to discover the meaning through group work activities.	SOC/D	1.69	.99
50	I take the cards which contain English words on one side and Turkish meaning on the other side	COG	1.82	1.07

As Table 4.3 shows, keeping a diary in English was the least often used VLS among the participants (M= 1.29). The reason of this can be attributed to the fact that keeping a diary in English requires relatively higher-level of English proficiency, and the participants were not proficient enough to make use of this strategy when the study was conducted. The other least often used strategies are using semantic grids (M=1.33), writing down words on a sheet in particular shapes (M=1.44), discovering the word meanings through group work activities (M=1.69) and using flashcards (M=1.82). The least often used strategies in the current study shares one strategy with the study by Schmitt (1997) (i.e. using semantic grids) and three strategies by Ay (2006) (i.e. keeping diaries, using semantic grids and using flashcards).

Table 4.4. Means and Standard Deviations for the Strategies Believed to be Least Useful

S. No	Strategy	Strategy Category	*M*	*SD*
43	When I learn new words with similar meanings, I draw a grid to remember the meaning. |	hands	sky	weather
---	---	---	---
Clean	✔		
Clear		✔	✔		MEM	1.86	.74
34	I learn the words writing them on a sheet in a particular shape. e.g. animal △ dog cat	MEM	1.97	.75
38	I use rhyme to remember new words.	MEM	2.00	.74
57	I keep a diary in English	COG	2.10	.84
8	If I do not know the meaning of a word, I try to discover the meaning through group work activities.	SOC/D	2.13	.79

Table 4.4 shows that participants believed that using semantic grids was the least useful strategy (M=1.86). This strategy was followed by writing words in particular shapes (M=1.97). The other least useful strategies were using rhyme (M=2.00), keeping a diary in English (M=2.10), and discovering word meaning through group work activities (M=2.13).

Comparison of the Table 4.3 and Table 4.4 shows that the least often used strategies and least useful strategies lists share four strategies (i.e. using semantic grids, writing down words in particular shapes, keeping diaries, and discovering word meaning through group work activities). This situation serves as another proof for the fact that participants' strategy use habits and their beliefs about them in terms of usefulness followed a similar pattern. The only discrepancy was that using flashcards in the least often used strategies list was replaced by using rhyme to remember new vocabulary in the least useful strategies list.

***Results for* Research Question # 3** Are there any significant differences among the scores of the participants in six categories of VLS in terms of frequency of use?

The analyses above were conducted to get a picture of the participants' VLS use habits and their beliefs about these strategies in terms of usefulness on item basis.

The current and the following sections will analyze the same variables on category basis.

Table 4.5. Means and Standard Deviations for the Scores of Participants in VLS Categories with regards to Frequency of Use

	n	*M*	*SD*
Determination	252	3.25	.49
Metacognitive	252	2.82	.71
Memory	252	2.76	.54
Cognitive	252	2.51	.64
Social/Dis	252	2.46	.60
Social/Con	252	2.23	.92
Valid *n*	252		

When the mean scores of the participants for VLS categories are examined, it is seen that Determination Strategies were the most often used VLS category among others (M=3.25). Metacognitive Strategies, which are related with learners' managing their own vocabulary development, came after Determination Strategies in their frequency of use (M=2.82). The two least often used VLS categories were Social/Consolidation (M=2.23) and Social/Discovery (M=2.46). These findings are similar to the findings of Şener's (2003) study. The only difference between these two studies is that Metacognitive Strategies were used more often than Memory Strategies (2.76) in the current study. It is interesting to note that the least often used strategies among the participants were Social/Discovery and Social/Consolidation Strategies, which entail cooperative learning (Slavin, 1996). This finding indicates that participants didn't prefer those strategies which require much cooperation among learners or cooperation between teachers and learners.

In order to get a better picture of the participants' VLS use habits on category basis a one-way ANOVA test was run taking VLS categories as independent and the mean scores of the participants in each category with regards to frequency of use as dependant variable.

Table 4.6. One-way Anova Results for the Mean Scores in Different VLS categories with regards to Frequency

	Sum of Squares	df	Mean Square	F	p
Between Groups	157.98	5	31.60	71.47	.000
Within Groups	665.82	1506	.44		
Total	823.80	1511			

The results summarized in Table 4.6 shows that there were significant differences among the mean scores of students in six VLS categories (p =.000, < .05). Scheffe post-hoc test was run as a follow up on this difference in order to clarify which strategies were used significantly more often than others.

Table 4.7. Multiple Comparisons for Vocabulary Learning Strategy Categories in terms of Frequency of use

(I) strategy	(J) strategy	M Difference (I-J)	Std. Error	p
Determination	Social/Dis	.79(*)	.06	.000
	Social/Con	1.02(*)	.06	.000
	Memory	.50(*)	.06	.000
	Cognitive	.74(*)	.06	.000
	Metacognitive	.43(*)	.06	.000
Social/Dis	Determination	-.79(*)	.06	.000
	Social/Con	.23(*)	.06	.009
	Memory	-.29(*)	.06	.000
	Cognitive	-.05	.06	.984
	Metacognitive	-.36(*)	.06	.000
Social/Con	Determination	-1.02(*)	.06	.000
	Social/Dis	-.23(*)	.06	.009
	Memory	-.52(*)	.06	.000
	Cognitive	-.28(*)	.06	.000
	Metacognitive	-.59(*)	.06	.000
Memory	Determination	-.50(*)	.06	.000
	Social/Dis	.29(*)	.06	.000
	Social/Con	.52(*)	.06	.000
	Cognitive	.24(*)	.06	.005
	Metacognitive	-.07	.06	.941
Cognitive	Determination	-.74(*)	.06	.000
	Social/Dis	.05	.06	.984
	Social/Con	.28(*)	.06	.000
	Memory	-.24(*)	.06	.005
	Metacognitive	-.31(*)	.06	.000
Metacognitive	Determination	-.43(*)	.06	.000
	Social/Dis	.36(*)	.06	.000
	Social/Con	.59(*)	.06	.000
	Memory	.07	.06	.941
	Cognitive	.31(*)	.06	.000

* The mean difference is significant at the .05 level.

The pairwise comparisons between strategy categories in terms of their frequency of use show that Determination Strategies have significantly higher mean scores than Social/Discovery (.79, p=.000), Social/Consolidation (1.02, p=.000), Memory (.50, p=.000), Cognitive (.74, p=.000), and Metacognitive Strategies (.43, p=.000). In other words, participants used Determination Strategies significantly more often than other VLS. Metacognitive Strategies, which come after Determination Strategies in their frequency of use, have significantly higher mean scores than Cognitive (.31, p=.000), Social/Discovery (.36, p=.000) and Social/Consolidation Strategies (.59, p=.000). Memory Strategies, our third most often used VLS category, have got significantly higher mean scores than Social/Discovery (.29, p=.000), Social/Consolidation (.52, p=.000) and Cognitive Strategies (,24, p=.005). The comparisons for Cognitive Strategies, which constitute the fourth most often used VLS category, put forward that they have significantly higher mean scores than only Social/Consolidation Strategies (.28, p=.000). Lastly, Social/Discovery Strategies, as the second least frequently used VLS category have significantly higher mean scores than Social/Consolidation strategies (.23, p=.009).

***Results for* Research Question # 4** Are there any significant differences among the scores of the participants in six categories of VLS in terms of their beliefs about them with regards to usefulness?

Table 4.8. Means and Standard Deviations for the Participants' Scores in VLS Categories with regards to their Beliefs about them in terms of Usefulness

	n	*M*	*SD*
Determination	252	2.57	.24
Metacognitive	252	2.55	.35
Social/Con	252	2.52	.48
Cognitive	252	2.48	.38
Memory	252	2.45	.29
Social/Dis	252	2.44	.41
Valid *n*	252		

Table 4.8 shows that Determination Strategies have the highest mean score (M=2.57) in terms of participants beliefs about them with regards to usefulness. To

put it differently, participants believed that Determination Strategies were the most useful VLS among others in terms of their contribution to vocabulary proficiency. Metacognitive Strategies (M=2.55) comes after Determination Strategies in their perceived usefulness. The lowest mean scores belongs to Social/Discovery (M=2.44) and Memory Strategies (M=2.45).

The comparison of the mean scores for VLS categories in terms of their frequency of use and participants' beliefs about them in terms of usefulness points to both considerable similarities and undeniable differences as was the case with the comparisons on item basis. To begin with the similarities, Determination and Metacognitive Strategies composed the two most often used VLS categories. They were also believed to be the most useful VLS categories by the participants. This finding shows that there was a harmony between the participants' beliefs about Determination and Metacognitive Strategies in terms of usefulness and how frequently they used them. The other similarity was that Social/Discovery Strategies constituted the least often used and the second least useful VLS category. As to the differences, Memory Strategies formed the third most often used strategy category while they took the fifth place in terms of usefulness. This shows us that even if the participants used Memory Strategies in moderate degrees, they didn't believe them to be much useful. The second main difference was that Social/Consolidation Strategies, which were used least frequently by the participants, took the third place with regards to usefulness. Hence, we can claim that although our subjects used Social/Consolidation Strategies very little, they saw some value in using these strategies. We also find this pattern of both similarities and differences between L2 learners' VLS use habits and their beliefs about VLS in terms of usefulness in Fan (2003) and Schmitt's (1997) studies. One-way ANOVA test results for usefulness mean scores are given in Table 4.9.

Table 4.9**.** One-way Anova Results for VLS Categories in terms of Participants Beliefs about them with regards to their Usefulness

	Sum of Squares	df	Mean Square	F	p
Between Groups	3.41	5	.68	5.08	.000
Within Groups	202.62	1506	.14		
Total	206.03	1511			

Table 4.9 shows that there were significant differences among the mean scores of the participants in six VLS categories in terms of their beliefs about VLS categories with regards to usefulness (p=.000<.05). This finding necessitated running a post hoc test to find out significantly differentiating VLS categories.

Table 4.10. Scheffe post-hoc Test Results for the Mean Scores in Different VLS Categories in terms of Participants' beliefs about them with regards their Usefulness

(I) strategy	(J) strategy	M Difference (I-J)	Std. Error	p
Determination	Social/Dis	.12(*)	.03	.015
	Social/Con	.05	.03	.854
	Memory	.12(*)	.03	.023
	Cognitive	.09	.03	.187
	Metacognitive	.09	.03	.997
Social/Dis	Determination	-.12(*)	.03	.015
	Social/Con	-.08	.03	.347
	Memory	-.01	.03	1.00
	Cognitive	-.03	.03	.957
	Metacognitive	-.10	.03	.069
Social/Con	Determination	-.05	.03	.854
	Social/Dis	.08	.03	.347
	Memory	.07	.03	.430
	Cognitive	.04	.03	.878
	Metacognitive	-.03	.03	.983
Memory	Determination	-.12(*)	.03	.023
	Social/Dis	.01	.03	1.00
	Social/Con	-.07	.03	.430
	Cognitive	-.03	.03	.979
	Metacognitive	-1.00	.03	.099
Cognitive	Determination	-.09	.03	.187
	Social/Dis	.03	.03	.957
	Social/Con	-.04	.03	.878
	Memory	.03	.03	.979
	Metacognitive	-.07	.03	.452
Metacognitive	Determination	-.02	.03	.997
	Social/Dis	.10	.03	.069
	Social/Con	.03	.03	.983
	Memory	1.00	.03	.099
	Cognitive	.07	.03	.452

* The mean difference is significant at the .05 level.

Pairwise comparisons for the usefulness mean scores between VLS categories put forward fewer significant differences than those for frequency of use. This means that participants' beliefs about VLS categories in terms of usefulness did not differentiated from each other as much as their frequency of use. The comparisons among VLS categories showed Determination Strategies were believed to be significantly more useful than Social/Discovery (.12, p.=.015) and Memory Strategies (.12, p=.023). The other multiple comparisons didn't yield any significant differences.

***Results for* Research Question # 5** Are there any Significant Differences among proficiency groups (Upper-Intermediate, Intermediate, Pre-Intermediate, Beginner) in terms of their vocabulary proficiency?

Before examining the relationship between VLS and participants' vocabulary proficiency, the researcher thought that getting a picture of participants' vocabulary proficiency would allow us to make more reliable inferences. In order to achieve this aim, mean scores of the four proficiency groups (Upper-Intermediate, Intermediate, Pre-Intermediate, Beginner) in the Vocabulary Levels Test (VLT) were calculated for 2000, 3000, 5000, University and 10000-levels. In addition, the mean scores of the proficiency groups in overall of the VLT were also calculated to assess their general vocabulary proficiency levels. After that, these scores were compared through several One-way Anova tests treating proficiency groups as independent and their scores in VLT as dependant variable.

Table 4.11. Means and Standard Deviation for the Scores of Proficiency Groups in Different Levels and Overall of the Vocabulary Size Test

	GROUP	n	*M*	*SD*
2000	Upper-Intermediate	63	12.27	2.78
	Intermediate	63	10.79	2.67
	Pre-Intermediate	62	8.84	2.53
	Beginner	64	7.69	2.54
	Total	252	9.89	3.16
3000	Upper-Intermediate	63	11.32	3.34
	Intermediate	63	9.62	3.96
	Pre-Intermediate	62	5.68	3.33
	Beginner	64	4.38	2.72
	Total	252	7.74	4.38
5000	Upper-Intermediate	63	8.87	3.55
	Intermediate	63	5.71	3.22
	Pre-Intermediate	62	3.95	2.15
	Beginner	64	3.83	2.68
	Total	252	5.59	3.57
UNIVERSITY	Upper-Intermediate	63	9.24	3.45
	Intermediate	63	5.11	3.63
	Pre-Intermediate	62	3.76	2.49
	Beginner	64	2.73	2.20
	Total	252	5.21	3.88
10000	Upper-Intermediate	63	3.22	2.20
	Intermediate	63	2,32	2.69
	Pre-Intermediate	62	1.13	1.40
	Beginner	64	1.09	1.58
	Total	252	1.94	2.21
TOTAL	Upper-Intermediate	63	44.90	12.01
	Intermediate	63	33.59	11.52
	Pre-Intermediate	62	23.34	6.40
	Beginner	64	19.73	7.68
	Total	252	30.38	13.78

When we examine Table 4.11, we see that the mean scores in five levels and overall of the VLT decreases in parallel with the decrease in the proficiency levels of participants. In all of the levels and overall of the VLT, Upper-Intermediate group got the highest mean scores (M=12.27 in 2000; M=11.32 in 3000; M=8.87 in 5000; M=9.24 in University; M=3.22 in 10000; M=44.90 in Total). After Upper-Intermediate, Intermediate group came with the second highest mean scores

(M=10.79 in 2000; M=9.62 in 3000; M= 5.71 in 5000; M=5.11 in University, M= 2. 32 in 10000 levels and M=33.59 in Total). Intermediate group was followed by Pre-Intermediate (M=8.84 in 2000; M=5.68 in 3000; M=3.95 in 5000; M=3.76 in University; M=1.13 in 10000 and M= 23.34 in Total) and Beginner groups (M=7.69 in 2000; M=4.38 in 3000; M=3.83 in 5000; M= 2.73 in University; M=1.09 in 10000 and M=19.73 in Total).

In order to see whether these differences among the mean scores of proficiency groups were significant, several one-way ANOVA tests were run. The results of these analyses are summarized in Table 4.12.

Table 4.12. One-way Anova Results for the Mean Scores of Proficiency Groups in Vocabulary Size Test

		Sum of Squares	df	Mean Square	F	p.
2000	Between Groups	787.24	3	262.41	37.86	.000
	Within Groups	1718.87	248	6.93		
	Total	2506.11	251			
3000	Between Groups	2017.18	3	672.39	59.36	.000
	Within Groups	2809.06	248	11.33		
	Total	4826.23	251			
5000	Between Groups	1045.10	3	348.37	39.96	.000
	Within Groups	2161.81	248	8.72		
	Total	3206.90	251			
UNIVERSITY	Between Groups	1545.76	3	515.26	57.11	.000
	Within Groups	2237.51	248	9.02		
	Total	3783.27	251			
10000	Between Groups	199.16	3	66.39	16.06	.000
	Within Groups	1024.95	248	4.13		
	Total	1224.11	251			
TOTAL	Between Groups	24266.12	3	8088.71	85.75	.000
	Within Groups	23395.07	248	94.34		
	Total	47661.19	251			

The results of One-way ANOVA test showed that there were significant differences among the mean scores of the proficiency groups in all the five levels and overall of the VLT (p=.000 <.05). This finding led the researcher to conduct several-post hoc tests to assess which proficiency groups differentiated significantly with regards to their scores in VLT.

Table 4.13. Scheffe Post-Hoc Test Scores for 2000-Level and Proficiency Groups

(I) group	(J) group	*M* Difference (I-J)	Std. Error	p
Upper-Inter.	Intermediate	1.48(*)	.47	.021
	Pre-Inter.	3.43(*)	.47	.000
	Beginner	4.58(*)	.47	.000
Intermediate	Upper-Inter.	-1.48(*)	.47	.021
	Pre-Inter.	1.95(*)	.47	.001
	Beginner	3.11(*)	.47	.000
Pre-Inter.	Upper-Inter.	-3.43(*)	.47	.000
	Intermediate	-1.95(*)	.47	.001
	Beginner	1.15	.47	.113
Beginner	Upper-Inter	-4.58(*)	.47	.000
	Intermediate	-3.11(*)	.47	.000
	Pre-Inter.	-1.15	.47	.113

* The mean difference is significant at the .05 level.

Multiple comparisons show that Upper-Intermediate group outperformed Intermediate (1.48, p=.021), Pre-Intermediate (3.43, p=.000) and Beginner (4.58, p=.000) groups significantly at 2000-level. So, we can say that Upper-Intermediate group showed a significantly higher performance than all the other proficiency groups at this level of the VLT. Intermediate group with the second highest mean score did significantly better than Pre-Intermediate (1.95, p=.001) and Beginner (3.11, p=.000) groups. However; there were no significant differences between the mean scores of the Pre-Intermediate and the Beginner groups (1.15, p=.113). This result shows us that even if the mean score of the Pre-Intermediate group at 2000 level is higher than the Beginner group to some extent, differentiation between these groups was not significant.

Table 4.14. Scheffe Post-Hoc Test Scores for 3000-Level and Proficiency Groups

(I) group	(J) group	M Difference (I-J)	Std. Error	p
Upper-Inter.	Intermediate	1.70(*)	.60	.048
	Pre-Inter.	5.64(*)	.60	.000
	Beginner	6.94(*)	.60	.000
Intermediate	Upper-Inter.	-1.70(*)	.60	.048
	Pre-Inter.	3.94(*)	.60	.000
	Beginner	5.24(*)	.60	.000
Pre-Inter.	Upper-Inter.	-5.64(*)	.60	.000
	Intermediate	-3.94(*)	.60	.000
	Beginner	1.30	.60	.197
Beginner	Upper-Inter.	-6.94(*)	.60	.000
	Intermediate	-5.24(*)	.60	.000
	Pre-Inter.	-1.30	.60	.197

* The mean difference is significant at the .05 level.

Multiple comparisons for 3000-level mean scores show similar results with 2000-level. Upper-Intermediate group had a significantly higher mean score than Intermediate (1.70, p=.0.48), Pre-Intermediate (5.64, p=.000) and Beginner groups (6.94, p=.000). Intermediate group, which had the second highest mean score after Upper-Intermediate group at 3000-level, did significantly better than Pre-Intermediate (3.94, p=.000) and Beginner groups (5.24, p.=.000). The difference between Pre-Intermediate and Beginner groups was not significant (1,30, p=.197).

Table 4.15. Scheffe Post-Hoc Test Results for 5000-Level and Proficiency Groups

(I) group	(J) group	M Difference (I-J)	Std. Error	p.
Upper-Inter.	Intermediate	3.16(*)	.53	.000
	Pre-Inter.	4.92(*)	.53	.000
	Beginner	5.04(*)	.52	.000
Intermediate	Upper-Inter.	-3.16(*)	.53	.000
	Pre-Inter.	1.76(*)	.53	.012
	Beginner	1.89(*)	.52	.005
Pre-Inter.	Upper-Inter.	-4.92(*)	.53	.000
	Intermediate	-1.76(*)	.53	.012
	Beginner	.12	.53	.997
Beginner	Upper-Inter.	-5.04(*)	.52	.000
	Intermediate	-1.89(*)	.52	.005
	Pre-Inter	-.12	.53	.997

*The mean difference is significant at the .05 level.

When we examine Table 4.15, we see that the patterns we have come across at 2000 and 3000 vocabulary levels persist in 5000 level. Upper-Intermediate group

had a significantly higher mean score than Intermediate (3.16, p=.000), Pre-Intermediate (4.92, p=.000) and Beginner groups (5.04, p=.000). Intermediate group with the second highest mean score outperformed Pre-Intermediate (1.76, p=.012) and Beginner groups (1.89, p=.005) significantly. There were no significant differences between Pre-Intermediate and Beginner groups (.12, p=.997).

Table 4.16. Scheffe Post-Hoc Test Scores for University-Level and Proficiency Groups

(I) group	(J) group	M Difference (I-J)	Std. Error	p
Upper-Inter.	Intermediate	4,13(*)	,54	,000
	Pre-Inter.	5,48(*)	,54	,000
	Beginner	6,50(*)	,53	,000
Intermediate	Upper-Inter.	-4,13(*)	,54	,000
	Pre-Inter.	1,35	,54	,099
	Beginner	2,38(*)	,53	,000
Pre-Inter.	Upper-Inter.	-5,48(*)	,54	,000
	Intermediate	-1,35	,54	,099
	Beginner	1,02	,54	,303
Beginner	Upper-Inter.	-6,50(*)	,53	,000
	Intermediate	-2,38(*)	,53	,000
	Pre-Inter	-1,02	,54	,303

* The mean difference is significant at the .05 level.

Table 4.16 shows that the mean score of the Upper-Intermediate group at University level proved to be significantly higher than the Intermediate (4.13, p=.000), Pre-Intermediate (5.48, p=.000) and Beginner (6.50, sig.=.000) groups. When the mean score of Intermediate group is compared with Pre-Intermediate and Beginner groups, we come across a different picture in which only one significant difference occurs with Beginner group (2.38, p=.000). Lastly, there were no significant differences between Pre-Intermediate and Beginner groups (1.02, p=.303) as was the case with the preceding pairwise comparisons.

Table 4.17. Scheffe Post-Hoc Test for Scores for 10000-Level and Proficiency Groups

(I) group	(J) group	*M* Difference (I-J)	Std. Error	p
Upper-Inter.	Intermediate	.90	.36	.103
	Pre-Inter.	2.09(*)	.36	.000
	Beginner	2.13(*)	.36	.000
Intermediate	Upper-Inter.	-.90	.36	.103
	Pre-Inter.	1.19(*)	.36	.015
	Beginner	1.22(*)	.36	.010
Pre-Inter.	Upper-Inter.	-2.09(*)	.36	.000
	Intermediate	-1.19(*)	.36	.015
	Beginner	.04	.36	1.00
Beginner	Upper-Inter.	-2.13(*)	.36	.000
	Intermediate	-1.22(*)	.36	.010
	Pre-Inter	-.04	.36	1.00

* The mean difference is significant at the .05 level.

Multiple comparisons for 10000 level, which includes very low-frequency words, show that significant differences disappeared between Upper-Intermediate and Intermediate groups at this level (.90, p=.103). However; significant differences persisted between Upper-Intermediate, Pre-Intermediate (2.09, p=.000) and Beginner groups (2.13, p=.000). The comparisons for the Intermediate group shows that this group obtained significantly higher mean score than Pre-Intermediate (1.19, p=.015) and Beginner groups (1.22, p=.010). The comparisons between Pre-Intermediate and Beginner groups put forward no significant differences (.04, p=1.00).

Table 4.18. Scheffe Post-Hoc Test for Mean Scores in Overall of VLT and Proficiency Groups

(I) group	(J) group	*M* Difference (I-J)	Std. Error	p
Upper-Inter.	Intermediate	11.32(*)	1.73	.000
	Pre-Inter.	21.57(*)	1.74	.000
	Beginner	25.17(*)	1.72	.000
Intermediate	Upper-Inter	-11.32(*)	1.73	.000
	Pre-Inter.	10.25(*)	1.74	.000
	Beginner	13.85(*)	1.72	.000
Pre-Inter.	Upper-Inter.	-21.57(*)	1.74	.000
	Intermediate	-10.25(*)	1.74	.000
	Beginner	3.60	1.73	.230
Beginner	Upper-Inter.	-25.17(*)	1.72	.000
	Intermediate	-13.85(*)	1.72	.000
	Pre-Inter	-3.60	1.73	.230

* The mean difference is significant at the .05 level.

The last Scheffe post hoc test was run to examine which proficiency groups differentiated from each other significantly with regards to their mean scores in overall of the VLT. The results showed that significant differences existed between Upper-Intermediate and Intermediate (11.32, p=.000), Pre-Intermediate (21.57, p=.000), Beginner groups (25.17, p=.000). Intermediate group, which had the second highest mean score, had a significantly higher mean score than both Pre-Intermediate (10.25, p=.000) and Beginner groups (13.85, p=.000). No significant differences were found between Pre-Intermediate and Beginner groups (3.60, p=.23). So, we can say that post hoc results for total mean scores are the same with 2000, 3000 and 5000 levels.

To summarize, the data analysis results which were put forward to answer the Research Question 5 pointed out some important findings. First of all, there was a parallelism between the proficiency levels of participants and their mean scores at different levels and overall of VLT. In other words, higher proficiency groups got higher mean scores, and lower proficiency groups got lower scores in VLT. One-way ANOVA test results showed that there were significant differences among the mean scores of the proficiency groups at all levels and overall of the vocabulary test, and multiple comparison made it clear that there were significant differences between the proficiency groups in general excluding Pre-Intermediate and Beginner groups. To put it another way, the mean scores of the Pre-Intermediate and Beginner groups in VLT were not significantly different from each other even if the Pre-Intermediate group had slightly higher mean scores.

***Results for* Research Question # 6** Are there any significant relationships between participants' vocabulary proficiency and VLS?

In order to see the relationships between VLS and participants' vocabulary proficiency, the researcher calculated the mean scores of all participants in VLT. Then, these scores were correlated with their mean scores for each VLS category. After that, the multiple regression tests were run with the same variables to understand this relationship more deeply.

Table 4.19. Mean Scores for all of the Participants in VLT

	n	*M*	*SD*
2000	252	9.89	3.16
3000	252	7.74	4.38
5000	252	5.59	3.57
University	252	5.21	3.88
10000	252	1.94	2.21
Total	252	30.18	13.78
Valid *n*	252		

When the mean scores for all of the participants in VLT are examined, we can see that the mean scores of the participants decrease in parallel to the increase in the levels of the VLT (at 2000 level: M=9.89; at 3000 level: M=7.74; at 5000 level M=5.59; at 10000: 1.94). This makes sense from the point of the fact that higher levels of the VLT include lower-frequency words, i.e., more "difficult" words. Another thing to be noted is the fact that participants' mean score at university level (M=5.21), which includes "academic" words, are between their scores for 5000 and 10000 levels. This means that the difficulty of this part of the test was between 5000 and 10000 levels for the participants. The fact that the participants were able to do one-third of the test (M=30.38) successfully indicates the difficulty of the VLT for the current population.

Table 4.20. Correlations between Vocabulary Proficiency and VLS for all of the Participants

		TWO	THREE	FIVE	UNIV.	TEN	TOTAL
DETERMINATION	Pearson Correlation Sig. (2-tailed) N	.085 .180 252	.023 .716 252	.048 .450 252	.088 .166 252	.047 .458 252	.071 .261 252
SOCIAL/DIS	Pearson Correlation Sig. (2-tailed) N	.014 .822 252	.011 .864 252	.002 .981 252	.046 .464 252	-.064 .312 252	.010 .874 252
SOCIAL/CON	Pearson Correlation Sig. (2-tailed) N	.079 .211 252	.054 .391 252	-.056 .373 252	.046 .471 252	-.041 .516 252	.026 .681 252
MEMORY	Pearson Correlation Sig. (2-tailed) N	.107 .091 252	.108 .088 252	.071 .264 252	.145(*) .021 252	.093 .142 252	.133(*) .035 252
COGNITIVE	Pearson Correlation Sig. (2-tailed) N	.019 .769 252	.018 .776 252	.010 .875 252	.043 .498 252	-.041 .521 252	.017 .792 252
METACOGNITIVE	Pearson Correlation Sig. (2-tailed) N	.085 .180 252	.081 .200 252	.067 .290 252	.120 .057 252	.009 .886 252	.096 .127 252

** Correlation is significant at the 0.01 level (2-tailed).
*Correlation is significant at the 0.05 level (2-tailed).
NOTE: Univ.: University

The correlation analysis results summarized in Table 4.20 pointed out two significant correlations between VLT scores and VLS categories when the data for all of the participants were included in the correlation analyses. According to the correlation results, Memory Strategies correlated positively both with participants' mean scores at University level ($r=.141$, $p<.05$) and overall VLT scores ($r=.126$, $p<.05$). To put it differently, as participants used Memory Strategies more, their scores at University Level and overall of the VLT tended to increase significantly. These findings imply that "academic" and general vocabulary proficiency were related with using Memory Strategies more for the participants in the current study who were from a wide range of proficiency levels. Memory Strategies were also found to be very valuable in terms of vocabulary proficiency in Barcoft's (2009) study. However, the results of the regression tests (see Appendix E) showed that none of the VLS categories emerged as a significant predictor of vocabulary proficiency.

***Results for* Research Question # 7** Are there any significant relationships between vocabulary proficiency and VLS for the four different proficiency groups (Upper- Intermediate, Intermediate, Pre-Intermediate, Beginner)?

In the analyses above, the mean scores of all participants in VLT and VLS categories were correlated, and multiple regression tests were run to see the relationships between these variables. Correlation and multiple regression tests with the same variables were also run for each proficiency group separately because we thought that a different picture might emerge as a result of this. Before putting forward the results of these analyses, it is useful to look at the mean scores of each proficiency group in six VLS categories.

Table 4.21. Means and Standard Deviations for the Scores of the Proficiency Groups in VLS Categories with regards to Frequency

GROUP			n	M	SD
Upper-Intermediate	Determination		63	3.29	.43
	Metacognitive		63	2.78	.67
	Memory		63	2.77	.48
	Cognitive		63	2.50	.63
	Social/Dis		63	2.48	.66
	Social/Con		63	2.06	.81
	Total		63		
Intermediate	Determination		63	3.17	.50
	Metacognitive		63	2.82	.62
	Memory		63	2.76	.51
	Social/Dis		63	2.50	.51
	Social/Con		63	2.49	1.07
	Cognitive		63	2.40	.64
	Total		63		
Pre-Intermediate	Determination		62	3.23	.48
	Metacognitive		62	2.75	.79
	Memory		62	2.69	.58
	Cognitive		62	2.44	.63
	Social/Con		62	2.40	.90
	Social/Dis		62	2.34	.57
	Total		62		
Beginner	Determination		64	3.32	.53
	Metacognitive		64	2.93	.76
	Memory		64	2.79	.58
	Cognitive		64	2.70	.63
	Social/Dis		64	2.53	.64
	Social/Con		64	1.98	.80
	Total		64		

When Table is 4.21 examined, it can be seen that Determination (Upper-Intermediate: M=3.29; Intermediate: M=3.17; Pre-Intermediate: M=3.23; Beginner:M=3.32), Metacognitive (Upper-Intermediate: M=2.78; Intermediate: M=2.82; Pre-Intermediate: M=2.75; Beginner:M=2.93) and Memory Strategies (Upper-Intermediate: M=2.77; Intermediate: M=2.76; Pre-Intermediate: M=2.69; Beginner: M=2.79) had the highest mean scores for all of the proficiency groups. In other words, these were the three most often used VLS categories among our participants from the four different proficiency groups. What is more interesting is

the fact that VLS strategy use habits of the Upper-Intermediate and Beginner groups, which are very different from each other in terms of their proficiency levels, follow exactly the same pattern when the order of their mean scores for six VLS categories are taken into account, i.e., Determination Strategies formed 1st, Metacognitive Strategies 2nd, Memory Strategies 3th, Social/Discover 5th and Social/Consolidation 6th most often used strategies for both groups. To continue with the similarities Social/Discovery and Social Consolidation Strategies were the two least often used VLS among others for the Upper-Intermediate, Pre-Intermediate and Beginner groups. If we compare these findings with those from Sabo et al. (1999) and Sanaoui's (1995) study, we can claim that they contradict each other because Sanaoui (1995) and Sabo et al. (1999) found out that L2 learners from different proficiency levels follow quite different VLS use patterns while they learn vocabulary. The main difference among the groups was that although Cognitive Strategies took the last place in terms of their frequency of use for the Intermediate group, they took the 4th place for the other groups. This means that Intermediate group used Cognitive strategies less than other groups.

Results for the **Research Question # 7a** Are there any significant relationships between vocabulary proficiency and VLS for the Upper-Intermediate group?

Table 4.22. Correlations between Vocabulary Proficiency and VLS for the Upper-Intermediate Group

		TWO	THREE	FIVE	UNIV.	TEN	TOTAL
DETERMINATION	Pearson Correlation Sig. (2-tailed) N	.024 .853 63	.001 .995 63	.087 .498 63	.223 .079 63	.115 .371 63	.117 .360 63
SOCIAL/DIS	Pearson Correlation Sig. (2-tailed) N	-.225 .076 63	-.210 .098 63	-.098 .443 63	-.039 .763 63	-.091 .477 63	-.166 .194 63
SOCIAL/CON	Pearson Correlation Sig. (2-tailed) N	.164 .199 63	-.049 .701 63	-.151 .237 63	.046 .718 63	-.049 .705 63	-.013 .922 63
MEMORY	Pearson Correlation Sig. (2-tailed) N	.110 .392 63	.213 .094 63	.127 .321 63	.253(*) .045 63	.246 .052 63	.246 .052 63
COGNITIVE	Pearson Correlation Sig. (2-tailed) N	.124 .335 63	.245 .053 63	.128 .317 63	.348(**) .005 63	.213 .094 63	.272(*) .031 63
METACOGNITIVE	Pearson Correlation Sig. (2-tailed) N	.218 .086 63	.291(*) .021 63	.129 .314 63	.347(**) .005 63	.105 .411 63	.290(*) .021 63

** Correlation is significant at the 0.01 level (2-tailed).
*Correlation is significant at the 0.05 level (2-tailed).

The correlation results for the Upper-Intermediate group put forward six significant correlations as can be seen in Table 4.22. The first positive correlation was found between the scores of participants at 3000 level, which includes high-frequency words, and Metacognitive Strategies (r=.291, p<.05). The correlation of the University level mean scores with VLS gave positive correlations for Memory (r=..253, p<.05), Cognitive (.348, p<.01) and Metacognitive Strategies (r=.347, p<.01). Lastly, the overall VLT scores correlated positively with Cognitive (r=.272, p<.05) and Metacognitive Strategies (r=.290, p<.05). Metacognitive Strategies also correlated with L2 learners' overall VLT scores in Şener's (2003) study.

The review the correlation results for the Upper-Intermediate group puts forward that vocabulary proficiency of the Upper-Intermediate group in high frequency words (3000 level words) increased significantly as the participants in this group used Metacognitive Strategies more. The correlations for University-level mean scores show that in addition to Metacognitive Strategies, increase in the use of

Memory strategies and Cognitive Strategies paralleled the increase in the University level scores. So, we can claim that these strategies are related with having a relatively higher "academic" vocabulary proficiency for the current proficiency group. Finally, the significant correlations for the overall VLT scores indicate that increase in the use of Cognitive and Metacognitive Strategies went hand in hand with the increase of scores in overall of the VLT. This finding demonstrates the possible contribution of Metacognitive and Cognitive Strategies to the general vocabulary proficiency of the Upper-Intermediate group. Another thing to be noted here is the fact that different VLS were related with vocabulary proficiency at different levels, which will also be the case with Pre-Intermediate group and Beginner groups. To give an example to this situation, while Memory Strategies correlated positively with University-level mean scores of the current group, they didn't correlate with 5000 level mean scores. The fact that different VLS can be related with vocabulary proficiency at different vocabulary proficiency levels is also testified by Fan's (2003) study.

The multiple regression tests for this proficiency group put forward that none of the VLS categories predicted vocabulary proficiency significantly (see Appendix E).

Results for the **Research Question # 7b** Are there any significant relationships between vocabulary proficiency and VLS for the Intermediate group?

Table 4.23. Correlations between Vocabulary Proficiency and VLS for the Intermediate Group

		TWO	THREE	FIVE	UNIV	TEN	TOTAL
DETERMINATION	Pearson Correlation Sig. (2-tailed) N	.182 .154 63	.117 .359 63	-.074 .563 63	.013 .920 63	-.027 .834 63	.061 .637 63
SOCIAL/DIS	Pearson Correlation Sig. (2-tailed) N	.195 .126 63	.129 .313 63	.078 .543 63	.191 .134 63	-.035 .784 63	.164 .199 63
SOCIAL/CON	Pearson Correlation Sig. (2-tailed) N	.039 .762 63	.070 .588 63	-.026 .838 63	.164 .199 63	-.100 .436 63	.051 .690 63
MEMORY	Pearson Correlation Sig. (2-tailed) N	.174 .173 63	.179 .160 63	-.043 .735 63	.122 .341 63	.020 .878 63	.133 .299 63
COGNITIVE	Pearson Correlation Sig. (2-tailed) N	.058 .651 63	-.014 .915 63	-.121 .345 63	-.111 .386 63	-.217 .087 63	-.115 .371 63
METACOGNITIVE	Pearson Correlation Sig. (2-tailed) N	.005 .970 63	.155 .225 63	-.033 .800 63	.045 .726 63	.009 .946 63	.054 .672 63

** Correlation is significant at the 0.01 level (2-tailed).
*Correlation is significant at the 0.05 level (2-tailed).

Table 4.23 shows that there aren't any significant correlations between the scores of the Intermediate group in VLT and any of the VLS categories. This shows us that decrease or increase of use in any VLS categories isn't parallel to the decrease or increase of scores in VLT significantly. So, these results make it impossible for us to put forward which strategies might have contributed to vocabulary proficiency of the Intermediate group significantly. Multiple regression analyses for this group did not put forward any significant relationships, too (see Appendix E).

Results for the **Research Question # 7c** Are there any significant relationships between Vocabulary Proficiency and VLS for the Pre-Intermediate group?

Table 4.24. Correlations between Vocabulary Proficiency and VLS for the Pre-Intermediate Group

		TWO	THREE	FIVE	UNIV.	TEN	TOTAL
DETERMINATION	Pearson Correlation Sig. (2-tailed) N	.116 .369 62	.107 .407 62	.198 .123 62	.248 .052 62	.074 .567 62	.278(*) .028 62
SOCIAL/DIS	Pearson Correlation Sig. (2-tailed) N	.033 .799 62	.007 .959 62	-.037 .777 62	.071 .585 62	-.180 .161 62	-.011 .934 62
SOCIAL/CON	Pearson Correlation Sig. (2-tailed) N	.093 .472 62	.128 .323 62	-.020 .880 62	.095 .465 62	.063 .627 62	.140 .279 62
MEMORY	Pearson Correlation Sig. (2-tailed) N	-.028 .827 62	-.019 .883 62	.112 .387 62	.214 .095 62	.086 .508 62	.114 .379 62
COGNITIVE	Pearson Correlation Sig. (2-tailed) N	.131 .312 62	.144 .263 62	.020 .878 62	.104 .423 62	-.030 .819 62	.165 .199 62
METACOGNITIVE	Pearson Correlation Sig. (2-tailed) N	.057 .659 62	.114 .378 62	.136 .293 62	.314(*) .013 62	-.003 .979 62	.245 .055 62

** Correlation is significant at the 0.01 level (2-tailed).
*Correlation is significant at the 0.05 level (2-tailed).

The correlation results for the Pre-Intermediate group summarized in Table 4.24 point to two significant and positive correlations. The first of them was found between the groups' mean scores in University level and Metacognitive Strategies ($r=.314$, $p<.05$). To remember, Metacognitive Strategies correlated with the University level mean scores of the Upper-Intermediate group as well. The other positive correlation was found between overall VLT mean scores and Determination Strategies ($r=.278$, $p<.05$). Determination Strategies also correlated with vocabulary proficiency in Şener's (2003) study. Multiple regression analyses for this group did not put any of the VLS categories as a significant predictor of the vocabulary proficiency (see Appendix E).

Results for the **Research Question # 7d** Are there any significant relationships between Vocabulary Proficiency and Vocabulary Learning Strategies (VLS) for the Beginner group?

Table 4.25. Correlations between Vocabulary Proficiency and VLS for the Beginner Group

		TWO	THREE	FIVE	UNIV.	TEN	TOTAL
DETERMINATION	Pearson Correlation Sig. (2-tailed) N	.175 .167 64	.011 .931 64	.071 .576 64	.009 .942 64	.132 .298 64	.114 .370 64
SOCIAL/DIS	Pearson Correlation Sig. (2-tailed) N	.091 .473 64	.080 .531 64	.003 .980 64	-.011 .932 64	-.101 .427 64	.035 .785 64
SOCIAL/CON	Pearson Correlation Sig. (2-tailed) N	.009 .942 64	-.027 .835 64	.073 .566 64	.002 .987 64	-.005 .968 64	.016 .899 64
MEMORY	Pearson Correlation Sig. (2-tailed) N	.242 .054 64	.181 .152 64	.111 .381 64	.164 .196 64	.053 .678 64	.240 .056 64
COGNITIVE	Pearson Correlation Sig. (2-tailed) N	.070 .582 64	.106 .406 64	.174 .170 64	.126 .321 64	.031 .809 64	.163 .198 64
METACOGNITIVE	Pearson Correlation Sig. (2-tailed) N	.265(*) .035 64	.037 .769 64	.209 .098 64	.096 .449 64	-.016 .898 64	.197 .118 64

** Correlation is significant at the 0.01 level (2-tailed).
*Correlation is significant at the 0.05 level (2-tailed).

The correlation analyses for the Beginner group indicated only one significant and positive correlation between Metacognitive Strategies and VLT scores at 2000 level, which consists of high-frequency words (r=.265, p<.05). Multiple regression analyses results for this group put forward the same results which we got for the other proficiency groups (see Appendix E).

To summarize correlation analyses for each proficiency group, they put forward findings which both converged and differentiated from each other to a certain extent. To begin with the similarities, Metacognitive Strategies positively correlated with high frequency words (2000 and 3000 level words) both for the Upper-Intermediate and Beginner groups. This means that increase in the use of Metacognitive Strategies brought about a significant increase in high-frequency vocabulary proficiency for these groups which had very different language proficiency levels.   Metacognitive Strategies also correlated positively with University level words for Upper and Pre-Intermediate groups. This points to the fact

that Metacognitive Strategies contributed to the "academic" vocabulary proficiency of the related groups significantly. If we take into consideration the fact that value of Metacognitive Strategies with regards to their contribution to L2 learner' vocabulary proficiency is well established in the field by lots of other studies (Çubukcu, 2008; Zhao, 2009 etc.), it can be said the above-mentioned results serve as another proof to the importance of these strategies.

Correlation results also pointed out a number of differences among proficiency groups. For example, the scores of the Upper-Intermediate group at University level correlated with Memory, Cognitive and Metacognitive Strategies altogether. However, University level mean scores correlated positively only with Metacognitive strategies for the Pre-Intermediate group. These differences between the Upper Intermediate and Pre-Intermediate groups points to the fact that language proficiency is a factor that determines the efficiency of VLS.

Another thing to be noted, which was referred before, is the fact that the efficiency of VLS or combinations of VLS can change according to the type of vocabulary proficiency we are dealing with (Fan, 2003) as can exemplified by the correlation results for the Upper-Intermediate group. To remember, mean scores of the Upper-Intermediate group in VLT for 3000 level, which includes high-frequency words, correlated positively with Metacognitive Strategies while the same group's University level mean scores, which includes "academic" words, positively correlated with Memory, Cognitive and Metacognitive Strategies. In addition to that, this group's overall VLT mean score, which is an indicator of general vocabulary proficiency, correlated positively with Cognitive and Metacognitive Strategies.

As to the multiple regression test results, they indicated that none of the VLS categories predicted vocabulary proficiency for any of the proficiency groups. The implications of all these findings will be discussed in the next chapter.

CHAPTER FIVE
CONCLUSION

5.1. PRESENTATION

The primary aim of the study was to examine vocabulary learning strategies (VLS) employed by L2 learners, how useful they believed them to be, and observing the relationships between VLS and L2 learners' vocabulary proficiency. In order to investigate these matters, a number of analyses were conducted. Firstly, the data collected through Vocabulary Learning Strategies Questionnaire (VLSQ) by Şener (2003) were analyzed to put forward which VLS were used most often and believed to be the most useful by the participants on item basis. The same procedure was applied to assess which strategies were used least often and believed to be the least useful. Secondly, the scores of the participants for each VLS category (i.e. Determination, Social/Discovery, Cognitive, Memory, Metacognitive, Social/Consolidation) were calculated both for frequency and usefulness scales, and one-way ANOVA tests were run to see whether there were significant differences among them. The aim of the preceding analyses was get a general picture of VLS use habits of the participants, and how useful they believed these strategies to be. In order to assess vocabulary proficiency levels of the participants, the scores of four proficiency groups (Upper-Intermediate, Intermediate, Pre-Intermediate, Beginner) in VLT were calculated and several One-way ANOVA tests were run to see whether there were any significant differences among them. Finally, to see the relationships between VLS and vocabulary proficiency a number of correlation and multiple regression tests were conducted.

This chapter will discuss the findings given in the preceding chapter. Next, pedagogical implications based on the findings of the current study will be put forward on thinking that they may provide practical suggestions for the current vocabulary learning and teaching practices. Finally, suggestions for further research will be presented.

5.2. DISCUSSION

   The findings for the Research Questions 1 and 2 unveiled VLS use habits of the participants and their perception of these strategies in terms of usefulness on item basis. The results showed that the most often used strategy among participants was writing down new vocabulary (M=3.88). According to Gu (2003) mechanical VLS such as writing down new words can impede vocabulary learning endeavors of L2 learners because even if L2 learners may learn the meaning of the target words by means of these strategies, they may not use them productively in different contexts. The reason behind this thinking is the fact that vocabulary should be learnt through meaning oriented activities (e.g. reading activities), and only this kind of learning leads to being able to use new vocabulary productively. If we take into consideration the fact that learning vocabulary by writing down was the most frequently used VLS in the current study, we can claim that this situation may pose problem for our participants especially in using new vocabulary for productive skills. Guessing word meanings from textual context was another most frequently used VLS (M=3.75). We can explain the massive dependance on context by our participants to the fact L2 learners can guess the meaning of a big number of words from context without needing the help of their teachers (Nagy et al., 1985). This situation can also be attributed to the fact that L2 learners are exposed to lots of reading materials inside and outside of their classrooms, and they become inclined to make use of textual context to guess the meaning of unknown words. Another finding of the study was that participants preferred using bilingual dictionaries (4th most often used strategy) to monolingual dictionaries (44th most often used strategy) to a great extent, which is in accordance with Baxter's (1980) study. According to Laufer and Hadar (1997) L2 learners' preference for bilingual dictionaries over monolingual dictionaries results from the fact that bilingual dictionaries provide a quick source of information as opposed to monolingual dictionaries which require a certain amount of language proficiency to learn the meaning of target words. Last strategy which took place in the most often used strategies list was paying attention to words uttered by native speakers (M=3.64). Extensive use of this strategy can be very beneficial for language learners because native speakers provide a "necessary point of reference for the second language proficiency" (Stern,1983: 341).

   The comparison of these findings with those from other studies which were conducted to examine VLS use habits of L2 learners shows a great deal of similarity.

To review these similarities, the most often used VLS list of the current study shares three strategies with the study by Ay (2006) (i.e. remembering the words when its explanation is read or heard, guessing words from context, and using bilingual dictionaries), three strategies by Schmitt (1997) (i.e. using bilingual dictionaries, guessing from textual context, writing down new words), two strategies by Fan (2003) (i.e. contextual learning and using dictionaries) , and two strategies by Ekmekçi (1999) (i.e. contextual learning and using dictionaries). If we take into consideration the fact that these studies included participants from different age groups, language proficiency levels and cultural backgrounds, we can claim that the above-mentioned VLS are favored by a wide range of language learners. It is interesting to note that there were no social strategies among the most often used strategies list in the current study. If this finding is evaluated keeping in mind the values of cooperative learning such as promoting active processing of knowledge, allowing learners to see their strengths and weaknesses through discussion (Dansereau, 1988; Slavin, 1996), it can be claimed that not using social strategies can deprive participants such possible benefits.

As to the least often used strategies by the participants, they included keeping a diary in English (M=1.29), using semantic grids (M=1.33), writing down words on a sheet in particular shapes (M=1.44), discovering the meaning of unknown words through group work activities (M=1.69), and using flashcards (M=1.82). If we pay attention the least often used strategies list, we see that they generally require a high level of English proficiency (e.g. keeping diaries in English) or take relatively more time to perform (e.g. using semantic grids). The existence of the similarities with regards to the least often used strategies between the current study and the studies conducted by Schmitt (1997) and Ay (2006) points to the fact that such strategies are not favored much among lots of L2 learners.

When we come to the question of the participants' beliefs about VLS, the findings showed that five strategies which were believed to be most useful were guessing the meaning of unknown words from context (M=2.83), writing down new words (M=2.82), doing the exercises in textbooks (M=2.76), learning phrasal verbs in which a target word takes place (M=2.75), and paying attention to the words uttered by native speakers (M=2.75). Examination of these strategies in relation to the most often used strategies reveals that participants not only made use of guessing the meaning of unknown words from context, writing down new words, and paying

attention to words uttered by native speakers most frequently, but also believed that they were the most useful VLS. In addition to that, the comparison of the least often used strategies with those believed to be least useful put forward four common strategies (i.e. using semantic grids, writing down words in particular shapes, keeping diaries in English, and discovering word meaning through group work activities). So, we can claim that there was an overlap between participants' VLS use habits and beliefs about these strategies in terms of usefulness to a large extent. This finding is in accordance with the view that learners beliefs can "influence learners' behaviors and, in particular, choice of learning strategies" (Tanaka and Ellis, 2003: 63). However, the existence of uncommon strategies in the comparisons above makes us beware of the fact that the relationship between language learners' beliefs about VLS in terms of usefulness and how often they employ these strategies may not be so direct. To put it differently, language learners can sometimes see a great deal of value in some strategies even if they don't use them that much frequently (e.g. doing vocabulary exercises in textbooks), or they can use some strategies very frequently even if they don't perceive them that much useful (e.g. using bilingual dictionaries).

The intention of getting a more precise picture of participants' VLS use habits and their beliefs about these strategies in terms of usefulness made the researcher conduct several analyses on category basis in addition to the item basis analyses which have been discussed up to this point. The researcher found that the participants used Determination Strategies (M=3.25), which include guessing word meanings by using the structural knowledge of the target language, guessing from cognates and context, more often than other strategies. Social/Consolidation (M=2.23) (i.e. studying with friends to consolidate word meanings in the mind and trying to use words which are learnt with friends or from teachers) and Social/Discovery Strategies (M=2.46) (i.e. discovering the word meanings asking the teacher or classmates for explanation and through group work activities) were the least often used VLS. Cognitive Strategies (i.e. more mechanical strategies such as repeating new word to memorize their meaning) were the third least often used strategies with a mean score of M=2.51. These findings are in accordance with Şener's (2003) study. The only difference between these two studies is that the participants in the current study used Metacognitive Strategies, which are related L2 learners' managing their own vocabulary learning process through various means like testing themselves

to check their vocabulary growth, more often than Memory Strategies, i.e., VLS which are mostly about retaining new words by forming relations between the already known words and the target words in the mind and "organizing mental information together or transform it in a way which makes it more memorable" (Schmitt, 1997: 206). This overlap between the current study and the study by Şener (2003) implies that there is a homogeneity between adult Turkish EFL learners in terms of their VLS use habits on a large scale. The analysis of the VLS categories in terms of participants' beliefs about them with regards to usefulness showed that Determination (M=2.57) and Metacognitive (M=2.55) Strategies were believed to be most useful VLS by the participants. Least useful strategies were Social/Discovery (M=2.44) and Memory Strategies (M=2.45). The comparison of these findings with those for the most and least often used VLS categories shows a great deal of harmony, and it testifies the inference we made before that learner beliefs have a potential of directing VLS choices. However, we should be cautious about over-generalizing this inference. To remember, Social/Consolidation Strategies formed the least often used VLS category, but they were believed to be the 3rd most useful VLS. This discrepancy justifies our reservations. Another implication of this finding is the fact that even if the participants did not use Social/Consolidation Strategies much, they seem to be aware of the possible benefits which could be provided by these strategies which were put forward by Dansereau (1977) and Slavin (1996) to some extent.

The other major aim of the study was to examine whether there was a relationship between VLS and L2 learners' vocabulary proficiency as it was suggested by Gu (1994) and various other researchers (Şener, 2003; Barcroft, 2009; Gu and Johnson, 1999 etc). Before examining these relationships through correlation and regression analyses, the researcher examined vocabulary proficiency of the four proficiency groups (Upper-Intermediate, Intermediate, Pre-Intermediate, Beginner) as was measured by VLT. The results showed that the mean scores of the Upper-Intermediate group were the highest at different levels (2000, 3000, 5000, University) and overall of the test, and it was followed by Intermediate, Pre-Intermediate and Beginner groups. This finding suggested that participants' language proficiency paralled with their vocabulary proficiency. Besides, mean score differences among the groups were found to be significant in One-way ANOVA tests (p=.000 <.05). Multiple comparisons showed that there were significant differences between groups

in general. The only exception was that no significant differences were found between the mean scores of the Pre-Intermediate and Beginner groups at any level and overall of test. These findings make it certain that the proficiency groups differentiated from each other in terms of their vocabulary proficiency significantly in general except Pre-Intermediate and Beginner groups.

As to the results of the analyses which were conducted to see the relationship between VLS and participants' vocabulary proficiency, multiple regression tests showed that their mean scores for frequency of use in VLS categories (Social/Discovery, Determination, Social/Consolidation, Memory, Cognitive, Metacognitive) did not predicted their VLT scores at any level (2000, 3000, 5000, University, 10000) and overall of the test. This situation did not change when the same test were run for each of the proficiency group separately (see Appendix E). However, correlation analyses put forward a number of significant and positive correlations, which allowed us to make some inferences. To begin with the correlation analyses for all of the participants, they pointed out that Memory Strategies correlated positively both with the participants' mean scores at University level ($r=.145$, $p<.05$) and overall VLT scores ($r=.133$, $p<.05$). To put it another way, as the participant used Memory Strategies more, their "academic" and general vocabulary proficiency tended to increase significantly. From this point of view, we can say that Memory Strategies can be really important for L2 learners' vocabulary proficiency. However, Şener (2003) found out that general vocabulary proficiency correlated positively with Determination and Metacognitive Strategies. When these findings are evaluated comparatively, we can claim that the study of Şener (2003) and the current study contradicts each other as to which VLS categories contribute to general vocabulary proficiency of adult Turkish L2 learners significantly. This difference may be attributed to the fact that that the participants in the Şener's (2003) study included upper-intermediate to advanced-level learners while the current study included learners from a wider range of proficiency levels from beginner to upper-intermediate. So, we can claim that the answer as to which VLS contribute to general vocabulary proficiency of language learners significantly may change according to the L2 learners' language proficiency. Our claim is justified when we analyze correlation analyses results between overall VLT scores and VLS categories for each proficiency group. To remember, positive correlations existed between overall VLT scores and Cognitive ($r=.272$, $p<.05$), Metacognitive Strategies ($r=.290$, $p<.05$) for

the Upper-Intermediate group. On the other hand, the correlation analyses for the Pre-Intermediate group with the same variables pointed to only one positive correlation for Determination Strategies (r=.278=, p<.05). Based on these findings, we can infer that while Metacognitive and Cognitive Strategies were significant contributors to general vocabulary proficiency for the Upper-Intermediate group, it was only Determination Strategies for the Pre-Intermediate group. Hence, the above mentioned claim seems reasonable.

Another pattern which surfaced from the review of the correlation results for each proficiency group was the fact that mean scores for Metacognitive strategies correlated positively with overall VLT mean scores and VLT scores across different levels (2000, 3000, University) for L2 learners who had very different proficiency levels. To review these correlations, Metacognitive Strategies correlated positively with 3000 (r=.291, p<.05), University level (r=.347, p<.01) and overall mean scores (r=.290, p<.05) for the Upper-Intermediate group. In addition, they correlated with University-level scores (r=.314, p<.05) for the Pre-Intermediate group and 2000 level scores (r=.265, p<.05) for the Beginner group. These findings show us that Metacognitive Strategies might be relevant to high-frequency (2000 and 3000 level words) and "academic" vocabulary proficiency (University level words) for language learners of different proficiency levels. Moreover, the fact that these strategies correlated positively with overall VLT mean scores of the Upper-Intermediate group points to the significant contribution of Metacognitive Strategies to general vocabulary proficiency especially for high-level language learners. The existence of various studies (Zhao 2009; Rasekh and Ranjbary 2003 etc.) which point to the value of Metacognitive Strategies in terms of their contribution to vocabulary proficiency solidifies Fan's (2003) view that L2 learners' controlling and managing their vocabulary learning process is very important for gaining the desired vocabulary learning results.

The last inference to be made from correlation results for each proficiency group is that the answer as to which VLS or combination of VLS contribute to vocabulary proficiency significantly can change according to whether we are dealing with vocabulary proficiency at a particular vocabulary level or general vocabulary proficiency. The correlation results for the Pre-Intermediate group and Upper-Intermediate group serve as a testimony to this inference. If we remember the results for the Pre-Intermediate group, Metacognitive Strategies positively correlated with

VLT scores at University level (r=.314, p<.05). On the other hand, overall VLT scores for this group positively correlated with Determination Strategies (r=.278, p<.05). When we come to the correlation results for the Upper-Intermediate group University level mean scores correlated positively with Memory (r=.253, p<.05), Cognitive (.348, p<.01) and Metacognitive Strategies (r=.347, p<.01). The overall VLT scores of the same group correlated positively with Cognitive (r=.272, p<.05) and Metacognitive Strategies (r=.290, p<.05). These findings for the Pre-Intermediate and Upper-Intermediate groups demonstrate that the kind of vocabulary proficiency (e.g. "academic", general) is a factor to be taken into consideration in determining the relative effectiveness of VLS or combination of VLS, which was testified in Fan's (2003) study.

To summarize our discussion, the current study found out that the participants employed a wide variety of VLS in different degrees, and their VLS use habits and beliefs about these strategies in terms of usefulness followed a similar pattern. The regression test results showed none of the VLS categories predicted VLT scores of our participants. However, the correlation results between VLS categories and VLT scores put forward some significant and positive correlations. When the correlation tests were run for all of the participants without separating them according to their language proficiency levels, it was seen that Memory Strategies positively correlated both with University level and overall VLT scores. This means that the increase in the use of Memory Strategies brought about a significant increase in "academic" and general vocabulary proficiency. When the correlation tests were run for each proficiency group separately, it was found that Metacognitive Strategies correlated positively with low-frequency vocabulary proficiency (2000 and 3000 level) and "academic" vocabulary proficiency (University level) for different language proficiency groups. In addition to that, these strategies correlated positively with general vocabulary proficiency for high-level language learners (Upper-Intermediate). The results also showed that language proficiency and the type of vocabulary proficiency (academic, low-frequency etc.) were two factors which had an effect on the effectiveness of VLS.

5.3. PEDAGOGICAL IMPLICATIONS

The current study was carried out to examine VLS use habits of language learners, their beliefs about these strategies in terms of usefulness and the

relationship between VLS and L2 learners' vocabulary proficiency. The findings of the current research and discussion of these findings presented in the preceding sections might provide language teachers and learners alike with some valuable suggestions in terms of current vocabulary learning and teaching practices.

To remember, Memory Strategies positively correlated with University-level and overall VLT scores when the correlation tests were run for all of the participants. Taking into consideration the fact that the participants in the current study were from a wide range of language proficiency levels from Beginner to Upper-Intermediate, we can claim that Memory Strategies were found to be related with "academic" and general vocabulary proficiency for language learners of different proficiency levels. In this context, Memory Strategies seem very valuable especially for language classrooms comprised of students from different proficiency levels. In such classrooms, English teachers may contribute to "academic" and general vocabulary proficiency of their students by training them on Memory Strategies and giving place to vocabulary learning activities which allow them to use these strategies because as the study by Torun (2010) suggests through these means L2 learners' making use of certain VLS can be ensured.

Another pattern that was observed from the examination of the correlation results is the fact that Metacognitive Strategies, which are mostly about language learners' managing their own vocabulary development through different means such as creating opportunities to learn vocabulary, checking their own vocabulary development, were found to be related with high frequency and "academic" vocabulary proficiency across different proficiency groups. Besides, Metacognitive Strategies were also found to be related with general vocabulary proficiency for high-level learners (Upper-Intermediate). If we take into consideration the fact that the value of Metacognitive Strategies is also verified in the field by lots of studies (Rasekh and Ranjbary, 2003; Zhao, 2009 etc.), we can claim that these strategies may provide language learners a good opportunity for developing their high-frequency, "academic" and general vocabulary proficiency. English teachers may help their students to employ these strategies by informing them about the values of Metacognitive Strategies and raising positive beliefs for these strategies because we saw in the preceding sections that there was a harmony between how useful the participants believed the VLS to be and how often they used them to a large extent.

We also inferred that the answer as to which VLS contribute to the general vocabulary proficiency of language learners significantly can change according to language proficiency of learners. The review of the correlation results between general vocabulary proficiency and VLS categories in the preceding sections justified this claim. To exemplify, Determination Strategies correlated positively with overall VLT scores for the Pre-Intermediate group. However, overall VLT scores of the Upper-Intermediate group correlated with Cognitive and Metacognitive Strategies. The practical implication here is that English teachers should take into consideration language proficiency of their students while deciding on which VLS they will encourage among their students because the effectiveness of VLS in terms of their contribution to vocabulary proficiency may change according to language proficiency of learners.

Lastly, correlation results for each proficiency group also implied that vocabulary proficiency at different levels (2000, 5000, University etc.) and general vocabulary proficiency should be handled differently as it is also suggested by Fan's (2003) study. For example, the correlation analyses for the Upper-Intermediate group showed that Metacognitive Strategies were related with vocabulary proficiency at 3000 level. On the other hand, correlations for the same group pointed out a significant relation between University-level vocabulary proficiency and Memory, Cognitive, Metacognitive Strategies. The existence of a similar pattern for the Pre-Intermediate group points out the necessity for language learners to choose VLS they will employ taking into consideration which kind of vocabulary (high-frequency, low frequency, academic etc.) they will handle. At this point, teachers have great responsibility in helping their students to choose the right kind of strategies which are in accordance with their specific vocabulary learning goals.

5.4. SUGGESTIONS FOR FURTHER RESEARCH

The findings of the current study, discussion of these findings, and pedagogical implications reviewed up to this point make it clear that there is an overlap between L2 learners' beliefs about VLS in terms of usefulness and their VLS use habits. In addition, we claimed that there is a relationship between VLS and language learners' vocabulary proficiency levels. The current study also showed that language proficiency of L2 learners and the kind of vocabulary (low-frequency, academic etc.) are two factors to be taken into consideration by learners and teachers

alike because they can have an impact on the effectiveness of VLS in terms of their contribution to vocabulary proficiency. However, our study has some limitations arising from its design, and conducting studies that would take into these limitations has a potential of understanding the matters of L2 learners' VLS use habits, their beliefs about VLS in terms of usefulness and the relationship between VLS and vocabulary proficiency better. To begin with VLS use habits of L2 learners, the current study examined them with regards to the strategies which existed in VLSQ. This means there is a possibility that the participants may have been using some other strategies that didn't exist in the questionnaire. So, conducting a descriptive study that would allow L2 learners to express their own VLS use habits without the constraints of a questionnaire containing closed-ended items can deepen our understanding about the matter. Secondly, the current study examined learner beliefs only in terms of language learners' beliefs about VLS in terms of usefulness. If we take into consideration the important role of learner beliefs in determining VLS choices and the effect of VLS on vocabulary proficiency, studying the variables that direct these beliefs by conducting experimental studies can provide practitioners in the field with some very valuable insights. Another limitation of the current study was that the VLT, which were made use of to examine vocabulary proficiency of the participants, assessed vocabulary proficiency at reception level. So, the findings of the study with regards to which VLS are related with vocabulary proficiency are valid only for receptive vocabulary proficiency. Conducting studies which examine this relationship with regards to productive vocabulary proficiency would allow us to understand the matter more deeply.

REFERENCES

Aitchison, J. (2003). *Words in the Mind: An Introduction to the Mental Lexicon*. Blackwell Publishing, Malden.

Al-Seghayer, K. (2001). The effect of Multimedia Annotation Modes on L2 Vocabulary Acquisition: A Comparative Study. *Language Learning and Technology*. 5(1): 202-232.

Ay, A. (2006). *The Vocabulary Learning Strategies Employed by Nith Graders and Relations with Their Personel Characteristics*. Master's Thesis, Dokuz Eylül University, İzmir.

Barcroft, J. (2009). Strategies and Performance in Intentional L2 Vocabulary Learning. *Language Awareness*, 18(1): 74-89.

Baxter, J. (1980). The Dictionary and Vocabulary Behavior: A Single Word or a Handful? *TESOL Quarterly*, 14(3): 325-336.

Bernat, E. and Lloyd, R. Exploring the Gender Effect on EFL Learners' Beliefs About Language Learning. *Australian Journal of Educational & Developmental Psychology*, 7: 79-91.

Bock, J.K. and Levelt, W. (1994). Language production: Grammatical Encoding. In *Handbook of Psycholinguistics,* Gernsbacher, M.A. (Ed.). Academic Press, San Diego. pp. 945-984.

Boers, F. and Lindstromberg, S. (2008). *How cognitive linguistics can foster Effective vocabulary teaching?* In Applications of Cognitive Linguistics: Cognitive linguistic Approaches to Vocabulary and Phraseology*,* Boers, F. and Lindstromberg, S. (Ed.). Mouton de Gruyfer, Berlin. pp. 1-65.

Brown, D. H. (1980). *Principles of Language Learning and Teaching*. Prentice-Hall, Inc., Englewood Cliffs, N.J.

Brown, T. and Perry, F. (1991). Comparison of Three. Learning Strategies for ESL Vocabulary Acquisition. *TESOL Quarterly*, 25(4): 655-670.

Carroll, D. (2008). *Psychology of Language*. Thomson Wadsworth, Belmont.

Carter, R. (1998). *Vocabulary : Applied Linguistic Perspectives*. Routledge, London.

Carter, R. and McCarthy, M. (1988). *Vocabulary and Language Teaching.* Longman, London.

Catalan, R. (2003). Sex differences in L2 vocabulary learning strategies International *Journal of Applied Linguistics*, 13(1): 54–77.

Collins, A.M. and Loftus, E.F. (1975). A Spreading Activation Theory of Semantic Processing. *Psychological Review,* 82: 407-428.

Collins, A.M. and Quillian, M.R. (1969). Retrieval Time from Semantic Memory. *Journal of Verbal Learning and Verbal Bahaviour,* 8: 240-247.

Cubukcu, F. (2008). Enhancing Vocabulary Development and Reading Comprehension through Metacognitive Strategies. *Issues in Educational Research,* 18(1):1-11.

Dansereau, D.F. (1988). Cooperative learning strategies. In *Learning and study strategies: Issues in assessment, instruction, and evaluation,* Weinstein, C.E., Goetz, E., and Alexander, P.E. (Ed.). Academic Press, Orlando, pp. 103-120.

Day, R.R., Omura, C., and Hiramatsu, M. (1991). Incidental EFL Vocabulary Learning and Reading. *Reading in a Foreign Language,* 71: 541-551.

Ekmekçi, N. M. (1999). *Vocabulary Learning Strategies and Their Effect on Turkish EFL Learners outcomes.* Master's Thesis, Eskişehir Anadolu University, Eskişehir.

Fan, M.Y. (2003). Frequency of Use, Perceived Usefulness, and Actual Usefulness of Second Language Vocabulary. The *Modern Language Journal*, 87(2): 222-241.

Foil, C. and Alber, S. (2002). Fun and effective Ways to Build your Students' Vocabulary. *Intervention in School and Clinic*, 37(3):131-139.

Freyd, B. and Baron J. (1982). Individual Differences in Acquisition of Derivational Morphology. *Journal of Verbal Learning and Verbal Behavior,* 21(3): 282-295.

Goulden, R., Nation, P., and Read, J. (1990). How large can a receptive vocabulary be? *Applied Linguistics,* 11: 341-363.

Graves, M. (1986). Vocabulary Learning and Instruction. *Review of Research in Education,* 13: 49-89.

Grosjean, F. (1982). *Life with Two Languages: An Introduction to Bilingualism.* Harvard University Press: Cambridge.

Gu, Y. (1994). Vocabulary Learning Strategies of Good and Poor Chinese EFL Learners. *TESOL Annual Meeting,* March 8-12, pp. 1-27.

Gu, Y. (2003) Vocabulary Learning in a Second Language: Person, Task, Context and Strategies. *TESL-EJ Journal,* 7(2): 1-25.

Gu, Y. and Johnson, R.K. (1996) Vocabulary Learning Strategies and Language Learning Outcomes. *Language Learning Journal,* 46(4): 643– 679.

Hakan, R. (2006). *Cross-Linguistic Similarity in Foreign Language Learning.* Multilingual Matters Limited, Clevedon.

Hamzah, M.S.G., Kafipour, R., and Abdullah, S.K. (2009). Vocabulary Learning Strategies of Iranian Undergraduate EFL. Students and its Relation to their Vocabulary Size. *European Journal of Social Sciences,* 11(1): 39-50.

Harmer, J. (1994). *The practice of English language teaching.* Longman: London.

Hirsch, D. and Nation, P. (1992). What Vocabulary Size is Needed to Read Unsimplified Texts for Pleasure? *Reading in a Foreign Language,* 8(2): 689-696.

Horst, M., Cobb, T., and Meara, P. (1998). Beyond A Clockwork Orange: Acquiring second language vocabulary through reading. *Reading in a Foreign Language, 11*(2): 207-233.

Hulstijn, J. H., Hollander, M., and Greidanus, T. (1996). Incidental Vocabulary Learning by Advanced Foreign Language Students: The Influence of Marginal Glosses, Dictionary Use, and Reoccurrence of Unknown Words. *The Modern Language Journal*, 80(3): 327-339.

Jamieson, P. (1976). *The acquisition of English as a second language by young Tokelau children living in New Zealand.* Unpublished PhD thesis, Victoria University. Wellington.

Jiang, N. (2002). Form-meaning mapping in vocabulary acquisition in a second language. *SSLA,* 24: 617–637.

Kocic, A. (2008). The Ptroblem of Synoforms (Similar Lexical Forms). *Linguistics and Literature*, 6(1):51-59.

Laufer, B. (2005). Focus on form. in second language vocabulary acquisition, In *EUROSLA Yearbook 5*: 223– 250.

Laufer, B. and Hadar, L. (1997). Assessing the Effectiveness of Monolingual, Bilingual, and "Bilingualised" Dictionaries in the Comprehension and Production of New Words. *The Modern Language Journal*, 81(2): 189-196.

Lawson, J. L. and Hogben, D. (1996) The Vocabulary Learning Strategies of Foreign Language Students. *Language Learning*, 46(1): 101-135.

Lee, S. (2003). ESL Learners' Vocabulary Use in Writing and the Effects of Explicit Vocabulary Instruction. *System Journal,* 31: 537–561.

Lewis, M. (1993). *The Lexical Approach.* Language Teaching Publications, Hove.

Li, X. (2004). *An analysis of Chinese EFL learners' beliefs about the role of rote learning in vocabulary learning strategies*. PhD thesis, University of Sunderland. Sunderland.

Marckwardt, A.H. (1973). The Dictionary as an English Teaching Resource. *TESOL Quarterly,*7(4): 369-379.

Meara, P. (1980). Vocabulary Acquisition: A Neglected Aspect of Language Learning. *Language Teaching and Linguistics: Abstracts,* 13(4): 221-246.

Meara, P. (1992). *EFL Vocabulary tests*, Unpublished manuscript. Centre for Applied Language Studies, University College: Swansea, UK.

Morin, R. and Goebel J. (2001). Basic Vocabulary Instruction: Teaching Strategies or Teaching Words? *Foreign Language Annals,* 34(1): 8-17.

Nagy, W.E. and Anderson, R.C. (1984). How many words are there in printed school English? *Reading Research Quarterly,19:* 304-330.

Nagy, W.E., Herman, P.A., and Anderson, R.C. (1985). Learning Words from Context. *Reading Research Quarterly*, 20(2): 233-253.

Nation, P. (1990). *Teaching and Learning Vocabulary.* Heinle and Heinle: Boston.

Nation, P. (2001). *Learning Vocabulary in Another Language.* Cambridge University Press: Cambridge.

Nation, P. and Coady, J. (1988). Vocabulary and reading. In , *Vocabulary and language teaching,* Carter, R and McCarthy, M. (Eds.) New York: Longman. pp. 97–110.

Ogden, C.K. (1930). *Basic English.* Psyche Miniatures, London.

Oxford, R. (1990). *Language Learning Strategies: What Every Teacher Should Know".* Newbury House: London.

Oxford, R. and Crookall, D. (1990). Vocabulary learning: A critical analysis of techniques. *TESL Canada Journal,* 7(2): 9-30.

Pitts. M., Howard, W., and Krashen S. (1989). Acquiring Second Language Vocabulary through Reading: A Replication of the Clockwork Orange Study Using Second Language Acquirers. *Reading in a Foreign Language*, 5(2): 271-75.

Prince, P. (1996). Second Language Vocabulary Learning: The Role of Context versus Translations as a Function of Proficiency. *The Modern Language Journal,* 80(4): 478-493.

Rasekh, Z. E. and Ranjbary, R. (2003). Metacognitive Strategy Training for Vocabulary Learning. *TESL-EJ*, 7(2): 1-15.

Read, J. (1997). Vocabulary and Testing. In *Vocabulary: Description, Acquisition and Pedagogy,* Schmitt, N. and McCarthy, M. (Ed.). Cambridge University Press, Cambridge, pp. 303-326.

Richards, I.A. (1943). *Basic English and Its Uses.* Norton, Newyork

Richards, J. (1976). The Role of Vocabulary Teaching. *TESOL Quarterly*, 10(1): 77-89.

Sabo, I. and Lightbown, P. (1999). Students' Approaches to Vocabulary Learning and Their Relationship to Success. *The Modern Language Journal*, 83(2): 176-192

Sagarra, N and Alba, M. (2006). The Key Is in the Keyword: L2 Vocabulary Learning Methods with Beginning Learners of Spanish. *The Modern Language Journal*, 90(2): 228-243.

Sanaoui, R. (1995). Adult Learners' Approaches to Learning Vocabulary in Second Languages. *The Modern Language Journal,* 79(1): 15-28.

Schmitt, N. (1997). Vocabulary Learning Strategies. In *Vocabulary: Description, Acquisition and Pedagogy,* Schmitt, N. and McCarthy, M. (Ed.). Cambridge University Press, Cambridge, pp. 199-228.

Schoonen, R. and Verhallen, M. (2008). The Assessment of Deep Word Knowledge in Young First and Second Language Learners. *Language Testing,* 25(2): 211–236.

Sheng, Li., McGregor, K.K. and Marian, V. (2006).Lexical-semantic organization in bilingual children: Evidence from a repeated word association task. *Journal of Speech, Language, and Hearing Research,* 49(3): 572-587.

Singleton, D. (2007). How integrated is the internal lexicon? In *Second Language Lexical Processes*, Zsolt, L. and Navracsics, J. (Ed). Multilingual Matters: Clevedon. pp. 3-16.

Slavin, R. E. (1987). Developmental and Motivational Perspectives on Cooperative Learning: A Reconciliation. Child Development, 58(5) Special Issue on Schools and Development: 1161-1167.

Soderman, T. (1993). Word associations of foreign language learners and native speakers: the phenomenon of a shift in response type and its relevance for lexical development. In *Near-native proficiency in English*, Ringbom, H. (Ed). Abo Akademi University English Department Publications: Abo. pp. 91-82.

Stahl, S.A., and Vancil, S.J. (1986) Discussion is What Makes Semantic Maps Work. The Reading Teacher, 40: 62-67.

Stauffer, R.G. (1942). A study of prefixes in the Thorndike list to establish a list of prefixes that should be thought in Elmentary School. *Journal of Educational Reseach,* 35:453-458.

Stern, H. H. (1983). *Fundamental concepts of language teaching.* Oxford University Pres: Oxford.

Sternberg, R.J. (1987) Most Vocabulary is Learnt from Context. In *The Nature of Vocabulary Learning,* McKeown and Curtis M.E. (Eds.). Lawrence Erlbaum Associates Inc., New Jersey. pp. 89-106.

Summers, D. (1988). The role of dictionaries in language learning. In *Vocabulary and Language Teaching*, Carter, R. and McCarthy, M. (Ed.) Longman: London. pp. 110-125.

Swan, M. (1997).The influence of the mother tongue on second language vocabulary acquisition and use. In *Vocabulary: Description, Acquisition and Pedagogy,* Schmitt, N. and McCarthy, M. (Ed.). Cambridge University Press, Cambridge, pp. 156-180.

Şener, S. (2003). *The Relationship Between Vocabulary Learning Strategies and Vocabulary Size of Turkish EFL Students*. Unpublished M. A. Thesis, Çanakkale Onsekiz Mart University. Çanakkale.

Tanaka, K. and Ellis, R. *(2003).* Study Abroad, Language Proficiency, and LearnerBeliefs about Language Learning. *JALT Journal,* 25(1): 63-85.

Thorndike, E.L. (1932). *Teachers' Word Book of 20000 words*. Columbia University: Teachers College, New York.

Torun, Y.E. (2010). *The Effects of Strategy Training on Vocabulary Development.* Master's Thesis, Gaziantep University, Gaziantep.

Underwood, J. (1989). HyperCard and Interactive Video. *CALICO Journal*, 6: 7-20.

Victori, M. and Lockhart, W. (1995). Enhancing Metacognition in Self-directed Language Learning. *System,* 23(2): 223-234.

Waring, R. (1997). The negative effects of learning words in semantic sets: A replication. *System Journal,* 25(2):261-274.

Waring, R. and Nation, P. (1997). Vocabulary size, text coverage, and word lists. In *Vocabulary: Description, Acquisition and Pedagogy,* Schmitt, N. and McCarthy, M. (Ed.). Cambridge University Press, Cambridge, pp. 6-19.

West, M. (1953). *A General List of English Words.* Longman Press, London.

Xu, J. (2009). An Experimental Study on the Effects of Different Reading Tasks on L2 Vocabulary Acquisition. *English Language Teaching Journal,* 2(3): 69-79.

Zhao, N. (2009). Metacognitive Strategy Training and Vocabulary Learning of Chinese College Students. *English Language Teaching*, 2(4):123-129.

Zimmerman, C.B. (1997). Historical Trends in Second Language Vocabular Instruction. In *Second Language Vocabulary Acquisition*, Coady, J. and Huckin T. (Ed.). Cambridge University Press, Cambridge, pp. 5-19.

APPENDICES

APPENDIX A: VOCABULARY LEARNING STRATEGIES QUESTIONNAIRE
(VLSQ)

KELİME ÖĞRENME STRATEJİLERİ VE YARARLILIK ENVANTERİ

Sevgili Öğrenciler,

Bu anket öğrencilerin kelime öğrenme stratejilerini ve bu stratejileri ne kadar yararlı gördüklerini belirlemek üzere düzenlenmiştir. Lütfen her stratejiyi dikkatlice okuyunuz. Bu stratejileri ne kadar sıklıkla kullandığınızı **a'dan e' ye** kadar olan seçeneklerden sadece birini ve bu stratejileri ne kadar yararlı bulduğunuzu belirtmek için **a'dan c'ye** kadar seçeneklerden sadece bir tanesini işaretleyerek belirtiniz.

Doğru veya yanlış cevap yoktur.

a) hiçbir zaman
b) nadiren
c) bazen
d) genellikle
e) her zaman

a) yararsız
b) kararsızım
c) yararlı

	STRATEJİ	SIKLIK a. hiçbir zaman b. nadiren c. bazen d. genellikle e. her zaman					YARARLILIK a. yararsız b. kararsızım c. yararlı		
1	Eğer bir kelimenin anlamını bilmiyorsam, ön ek, son ek ve kelimenin kökünü inceleyerek tahmin etmeye çalışırım.	a	b	c	d	e	a	b	c
2	Bir kelimenin anlamını bilmiyorsam, İngilizce-Türkçe sözlük kullanırım.	a	b	c	d	e	a	b	c
3	Bir kelimenin anlamını öğrenmek için sadece İngilizce yazılmış sözlük kullanırım.	a	b	c	d	e	a	b	c
4	Bir kelimeyi bilmiyorsam, öğretmenden onu Türkçe'ye çevirmesini isterim.	a	b	c	d	e	a	b	c
5	Bir kelimeyi bilmiyorsam, öğretmenden o kelimenin anlamını İngilizce olarak açıklamasını isterim.	a	b	c	d	e	a	b	c
6	Bir kelimeyi bilmiyorsam, öğretmenden onu bir cümlede kullanmasını isterim.	a	b	c	d	e	a	b	c
7	Bir kelimeyi bilmiyorsam, anlamını sınıf arkadaşlarıma sorarım.	a	b	c	d	e	a	b	c
8	Bir kelimenin anlamını bilmiyorsam, onu sınıf içi grup çalışmaları yaparak öğrenmeye çalışırım.	a	b	c	d	e	a	b	c
9	Yazılı bir metinde geçen kelimeyi bilmiyorsam, onun anlamını etrafındaki cümlelerden çıkarmaya çalışırım.	a	b	c	d	e	a	b	c
10	Televizyon seyrederken anlamını bilmediğim kelimeleri hareketlere bakarak tahmin etmeye çalışırım.	a	b	c	d	e	a	b	c
11	Anadili İngilizce olan birini dinlerken bir kelimenin ve deyimin anlamını ses tonuna dikkat ederek tahmin etmeye çalışırım.	a	b	c	d	e	a	b	c
12	Yeni kelimelerin anlamlarını ezberlemek için kelime listesi yaparım.	a	b	c	d	e	a	b	c
13	Kelime öğrenmek için sıklıkla birlikte kullanılan kelimelere dikkat ederim ve bu kelimeleri birlikte öğrenmeye çalışırım. (örn. *correct*-answer; *true*-story)	a	b	c	d	e	a	b	c
14	Bir kelimenin anlamını bilmiyorsam, onu Türkçe'de bildiğim bir kelimeye benzeterek tahmin etmeye çalışırım. (örn: coctail-kokteyl)	a	b	c	d	e	a	b	c

	STRATEJİ	SIKLIK					YARARLILIK		
		a. hiçbir zaman b. nadiren c. bazen d. genellikle e. her zaman					a. yararsız b. kararsızım c. yararlı		
15	Öğrendiğim yeni kelimeleri ve deyimleri unutmamak için yabancılarla konuşarak bu yeni kelimeleri ve deyimleri kullanmaya gayret ederim.	a	b	c	d	e	a	b	c
16	Bir kelimenin anlamını resimli sözlükten bulursam, onu daha iyi öğrenirim.	a	b	c	d	e	a	b	c
17	Yeni kelimelerin açıklamalarını (tanımlarını) okumak yerine resimlerine bakarak daha iyi öğrenirim.	a	b	c	d	e	a	b	c
18	Kelime ve deyimleri hatırlamak için kafamda hayali resimler canlandırırım. (örn: sırıtmak kelimesinde Kemal Sunal'ı hatırlarım.)	a	b	c	d	e	a	b	c
19	Birbirleriyle bir şekilde bağlantılı kelimeleri grup halinde hatırlarım. (örn: yellow-green-blue)	a	b	c	d	e	a	b	c
20	Kelimeleri akılda tutmak için Türkçe'deki kelimelerle bağlantı kurmaya çalışırım. (örn:sabotage-sabotaj)	a	b	c	d	e	a	b	c
21	Bir kelime veya deyimi öğrenince onu daha önce bildiklerimle ilişkilendirmeye çalışırım.	a	b	c	d	e	a	b	c
22	Bir kelimenin anlamını hatırda tutmak için o kelimenin çağrıştırdığı anlamlardan veya hislerden yararlanırım. (örn: white-innocence)	a	b	c	d	e	a	b	c
23	Sıfatları hatırlamak için onları büyükten küçüğe ya da şiddetliden hafife doğru sıralarım. (örn: enormous-big small)	a	b	c	d	e	a	b	c
24	Öğrendiğim kelimeleri üstte bir anahtar kelime, aşağıda onunla ilgili kelimeleri yazarak şema halinde düzenlerim. (örn: hospital→doctor-nurse-patient vb.)	a	b	c	d	e	a	b	c
25	İçinde yeni kelime veya deyimlerin kullanıldığı örnek cümleleri hatırlamaya çalışırım.	a	b	c	d	e	a	b	c
26	Yeni kelimeler öğrendiğimde onları kafamda bir odada değişik yerlere koyarak anlamlarını akılda tutarım.	a	b	c	d	e	a	b	c
27	Bir kelimeyi hatırlamak için değişik sesleri ve imajları kullanırım. (örn. "whistle" için ıslık sesi, "bark" için hav hav sesi vb.)	a	b	c	d	e	a	b	c
28	Öğrendiğim kelimenin birden fazla anlamı varsa bu anlamlarını da öğrenirim. (örn. soil: toprak, toz, kir)	a	b	c	d	e	a	b	c
29	Bir kelimenin anlamını kafamda pekiştirmek için arkadaşlarımla beraber çalışırım.	a	b	c	d	e	a	b	c
30	Bir kelimenin anlamını öğrenmek ve hatırda tutmak için onu gözümün önünde canlandırmaya çalışırım.	a	b	c	d	e	a	b	c
31	Bir kelimenin anlamını öğrenmek için onun hangi kelime grubuna (isim, sıfat, fiil vb.) ait olduğunu çıkarmaya çalışırım.	a	b	c	d	e	a	b	c
32	Öğrendiğim kelimenin değişik gramer yapılarını da öğrenirim. (örn: I felt shy; I felt the wind; I felt that I was wrong).	a	b	c	d	e	a	b	c
33	Öğrenmek istediğim kelimeleri renk, biçim, fonksiyon, iyi, kötü gibi gruplara ayırarak öğrenmeye çalışırım. (örn. helpful,generous×mean, selfish)	a	b	c	d	e	a	b	c

	STRATEJİ	SIKLIK a. hiçbir zaman b. nadiren c. bazen d. genellikle e. her zaman					YARARLILIK a. yararsız b. kararsızım c. yararlı		
34	Kelimeleri kağıt üzerine belirli bir şekilde yazarak öğrenirim. örn: animal △ dog cat	a	b	c	d	e	a	b	c
35	Yeni kelimeleri öğrenirken daha önce bildiğim kelimelerle yeni kelimeler arasında bir bağ yaratmak için o kelimeleri bir cümle ya da hikaye içinde kullanırım.	a	b	c	d	e	a	b	c
36	Eğer öğreneceğim kelime deyimsel fiillerin içinde geçiyorsa bu deyimsel fiilleri de öğrenirim. (örn: take→take on, take off, take up vb.)	a	b	c	d	e	a	b	c
37	Bir kelimenin telaffuzunu aynı sese benzeyen diğer kelimelerle bağlantı kurarak hatırlarım.	a	b	c	d	e	a	b	c
38	Yeni kelimeleri hatırlamak için kafiye kullanırım.	a	b	c	d	e	a	b	c
39	Kelimenin anlamını akılda tutmak için köküne ve ön-ek son-ekine dikkat ederim.	a	b	c	d	e	a	b	c
40	Daha önceden öğrendiğim bir kelimenin açıklamasını duyarsam veya okursam, bildiğim o kelimeyi hatırlarım.	a	b	c	d	e	a	b	c
41	Şarkı sözlerini öğrenmem benim daha fazla kelime öğrenmeme ve hatırlamama yardımcı olur.	a	b	c	d	e	a	b	c
42	Bir kelimeyi öğrenirken onun anlamını hatırlamak için onu hareketlerle yaparım. (örn: göz kırpmak)	a	b	c	d	e	a	b	c
43	Anlamca yakın olan kelimeleri öğrendiğimde anlamını hatırlamak için şema çizerim. Örneğin. (hands / sky / weather; Clean ✔; Clear ✔ ✔)	a	b	c	d	e	a	b	c
44	Yeni kelimelerin anlam ve yazılışlarını unutmamak için defalarca yazarım.	a	b	c	d	e	a	b	c
45	Yeni kelimeleri hatırlamak için kafiye kullanmam.	a	b	c	d	e	a	b	c
46	Bir kelime öğrendiğimde anlamını ve telaffuzunu hatırlamak için birçok kez söylerim.	a	b	c	d	e	a	b	c
47	Öğreneceğim kelimeleri eş anlamlıları ve zıt anlamlarıyla beraber öğrenirim. (örn: white-black, cry-smile vb.)	a	b	c	d	e	a	b	c
48	Kelimenin anlamını akılda tutmak için köküne ve ön-ek son-ekine dikkat etmem.	a	b	c	d	e	a	b	c
49	Küçük küçük kâğıtlara bir yüzüne kelimenin Türkçe diğer yüzüne İngilizce anlamını yazarım.	a	b	c	d	e	a	b	c
50	İngilizce ve Türkçe anlamlarını yazdığım küçük	a	b	c	d	e	a	b	c

	STRATEJİ	SIKLIK a. hiçbir zaman b. nadiren c. bazen d. genellikle e. her zaman					YARARLILIK a. yararsız b. kararsızım c. yararlı		
	kâğıtları nereye gidersem yanıma alırım.								
51	Kelimelerin anlamlarını hatırlamak için boş vakitlerimde küçük kartların bir yüzünü okur anlamını hatırlamaya çalışırım.	a	b	c	d	e	a	b	c
52	İngilizce kitaplarımın sonundaki kelime listesine çalışırım.	a	b	c	d	e	a	b	c
53	Yeni öğrendiğim kelimeleri bir deftere değişik halleriyle yazarım. (isim/fiil/sıfat gibi)	a	b	c	d	e	a	b	c
54	Yeni kelimeleri kullanarak İngilizce kısa notlar ve mesajlar yazarım.	a	b	c	d	e	a	b	c
55	Televizyon seyreder ve dinlerken hatırladığım sözcükleri bir yere yazarım.	a	b	c	d	e	a	b	c
56	Öğreneceğim kelimeleri eş anlamlıları ve zıt anlamlarıyla beraber öğrenmem.	a	b	c	d	e	a	b	c
57	İngilizce günlük tutarım.	a	b	c	d	e	a	b	c
58	Her gün belli bir miktar kelime öğrenmeye çalışırım.	a	b	c	d	e	a	b	c
59	Öğrendiğim yeni kelimeleri belli bir süre sonra tekrar ederim. (örn: bir gün-bir hafta-bir ay sonra)	a	b	c	d	e	a	b	c
60	Kelimelerle, resimlerini eşleştirirsem onları kolayca ezberlerim	a	b	c	d	e	a	b	c
61	Sınıfta yeni kelime öğrendiğimde not tutarım.	a	b	c	d	e	a	b	c
62	Kitapların kelimeyle ilgili olan bölümlerindeki alıştırmaları yaparım.	a	b	c	d	e	a	b	c
63	Yabancılarla konuşurken onların kullandığı kelimelere dikkat ederim.	a	b	c	d	e	a	b	c
64	Yeni kelimeleri öğrenmedeki başarımı ilerlememi kontrol etmek için kendi kendimi test ederim.	a	b	c	d	e	a	b	c
65	İngilizce dergi veya gazete okuduğumda yeni kelimelerin altını çizerim.	a	b	c	d	e	a	b	c
66	Yeni kelime öğrenmek için fırsatlar yaratırım.	a	b	c	d	e	a	b	c
67	İngilizce günlük tutmam.	a	b	c	d	e	a	b	c
68	Uzun vadede kelime haznemi geliştirmek için amaçlar belirlerim. (örn:yıl sonuna kadar 500 kelime)	a	b	c	d	e	a	b	c
69	Bir parçada yeni kelimeye rastlarsam, durup onu sözlükten ararım.	a	b	c	d	e	a	b	c
70	Sınıfta yeni kelimeleri öğrendiğimde not tutmam.	a	b	c	d	e	a	b	c
71	Bir parçada yeni kelimeyle karşılaşırsam, onu hemen sözlükten aramam fakat onu tekrar görürsem ararım.	a	b	c	d	e	a	b	c

APPENDIX B: VOCABULARY LEVELS TEST (VLT)

Bu ölçek Yabancı Diller Yüksekokulunda hazırlık eğitimi gören öğrencilerin İngilizce kelime düzeylerini belirlemeyi amaçlamaktadır. Bu testte sizden verilen anlamların yanına o anlamı karşılayan kelimeyi bularak yerleştirmeniz istenmektedir. Aşağıdaki örnek size yön verecektir.

```
1 business
2 clock      __6___  part of a house
3 horse      __3___  animal with four legs
4 pencil     __4___  something used for writing
5 shoe
6 wall
```

2000-word level

```
1 original
2 private     _____  complete
3 royal       _____  first
4 slow        _____  not public
5 sorry
6 total
```

```
1 apply
2 elect       _____  choose by voting
3 jump        _____  become like water
4 manufacture _____  make
5 melt
6 threaten
```

```
1 blame
2 hide        _____  keep away from sight
3 hit         _____  have a bad effect on something
4 invite      _____  ask
5 pour
6 spoil
```

```
1 accident
2 choice      _____  hiving a high opinion of yourself
3 debt        _____  something you must pay
4 fortune     _____  loud and deep sound
5 pride
6 roar
```

```
1 basket
2 crop        _____  money paid regularly for doing a job
3 flesh       _____  heat
4 salary      _____  meat
5 temperature
6 thread
```

1 birth
2 dust   _____ being born
3 operation   _____ game
4 row   _____ winning
5 sport
6 victory

3000-word level

1 administration
2 angel   _____ managing business affairs
3 front   _____ spirit who serves God
4 herd   _____ group of animals
5 mate
6 pond

1 bench
2 charity   _____ part of a country
3 fort   _____ help to the poor
4 jar   _____ long seat
5 mirror
6 province

1 coach
2 darling   _____ a thin, lat piece out from some thing
3 echo   _____ person who is loved very much
4 interior   _____ sound reflected back to you
5 opera
6 slice

1 marble
2 palm   _____ inner surface of your hand
3 ridge   _____ excited feeling
4 scheme   _____ plan
5 statue
6 thrill

1 discharge
2 encounter   _____ use pictures or examples to show meaning
3 illustrate   _____ meet
4 knit   _____ throw up into air
5 prevail
6 toss

1 annual
2 blank   _____ happening once a year
3 brilliant   _____ certain
4 concealed   _____ wild
5 definite
6 savage

5000-word level

1 alcohol
2 apron   _____ cloth word in front to protect your clothes
3 lure   _____ stage of development
4 mess   _____ state of untidiness or dirtiness
5 phase
6 plank

1 circus
2 jungle   _____ speech given by a priest in a church
3 nomination   _____ seat without a back or arms
4 sermon   _____ musical instrument
5 stool
6 trumpet

1 apparatus
2 compliment   _____ set of instruments or machinery
3 revenue   _____ money received by the government
4 scrap   _____ expression of admiration
5 tile
6 ward

1 bruise
2 exile   _____ agreement using property as security for a debt
3 ledge   _____ narrow shelf
4 mortgage   _____ dark place on your body caused by hitting
5 shovel
6 switch

1 blend
2 devise   _____ hold tightly in your arms
3 embroider   _____ plan or invent
4 hug   _____ mix
5 imply
6 paste

1 desolate
2 fragrant   _____ good for your health
3 gloomy   _____ sweet smelling
4 profound   _____ dark or sad
5 radical
6 wholesome

University-Level

1 affluence
2 axis   _____ introduction of a new thing
3 episode   _____ one event in a series
4 innovation   _____ wealth
5 precision
6 tissue

1 deficiency
2 magnitude   _____ swinging from side to side
3 oscillation   _____ respect
4 prestige   _____ lack
5 sanction
6 specification

1 configuration
2 discourse   _____ shape
3 hypothesis   _____ speech
4 intersection   _____ theory
5 partisan
6 propensity

1 anonymous
2 indigenous   _____ without the writer's name
3 maternal   _____ least possible amount
4 minimum   _____ native
5 nutrient
6 modification

1 elementary
2 negative   _____ of the beginning stage
3 static   _____ not moving or changing
4 random   _____ final, furthest
5 reluctant
6 ultimate

1 coincide
2 coordinate   _____ prevent people from doing something they want to do
3 expel   _____ add to
4 frustrate   _____ send out by force
5 supplement
6 transfer

10000-word level

1 acquiesce
2 contaminate   _____ work at something without serious intentions
3 crease   _____ accept without protest
4 dabble   _____ make a fold on cloth or paper
5 rape
6 squint

1 blaspheme
2 endorse   _____ give care and food to
3 nurture   _____ speak badly about God
4 overhaul   _____ slip or slide
5 skid
6 straggle

1 auxiliary
2 candid   _____ full of self-impotence
3 dubious   _____ helping, adding support
4 morose   _____ bad-tempered
5 pompous
6 temporal

1 anterior
2 concave   _____ small and weak
3 interminable _____ easily changing
4 puny   _____ endless
5 volatile
6 wicker
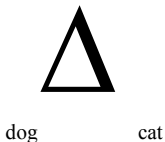
1 dregs
2 flurry   _____ worst and most useless parts of anything
3 hostage   _____ natural liquid present in the mouth
4 jumble   _____ confused mixture
5 saliva
6 truce

1 auspices
2 casualty   _____ being away from other people
3 froth   _____ someone killed or injured
4 haunch   _____ noisy and happy celebration
5 revelry
6 seclusion

APPENDIX C: MEANS AND STANDARD DEVIATIONS FOR THE RESPONSES OF PARTICIPANTS TO VLSQ IN TERMS OF FREQUENCY

No	Str. No	Strategy	Strategy Category	*M*	*SD*
1	61	When I learn new words in the class, I write them anywhere available	COG	3.88	1.21
2	40	When I read or hear the explanation of a word, I remember the word I have learned before.	MEM	3.79	1.02
3	9	If I do not know the word in a written text, I try to guess the meaning of it from the surrounding sentences	DET	3.75	.98
4	2	When I do not know the meaning of a word, I use a bilingual dictionary.	DET	3.71	1.00
5	63	I pay attention to the words of native speakers when I speak with them	MET	3.64	1.25
6	20	I try to remember words by connecting them to something in Turkish (e.g. sabotage-sabotaj).	MEM	3.61	1.15
7	12	I make a list of words with their meanings to memorize them.	DET	3.50	1.34
8	14	When I do not know a word, I tryto guess it by connecting it to a word in Turkish.	DET	3.48	1.19
9	30	To learn a new word I try to visualize it.	MEM	3.43	1.25
10	31	In order to learn the meaning of a word I try to guess which part of speech it belongs to (adjective, noun etc.)	DET	3.38	1.23
11	28	If the word I want to learn has more than one meaning, I learn them, too. (e.g. soil: stain, earth)	MEM	3.37	1.16
12	13	In order to learn words, I pay attention to those words which are used together very often, and I try to learn these words together (e.g. correct answer, true story)	MEM	3.35	1.11
13	7	If I do not know a word, I ask my classmates for meaning.	SOC/D	3.33	.99
14	10	When I am watching TV, I try to guess the meaning of a word by paying attention to gestures	DET	3.32	1.23
15	62	I do exercises in the special vocabulary sections of the text books.	COG	3.31	1.24
16	69	When I encounter a new word in a text, I stop reading and look it up in a dictionary.	DET	3.31	1.25
17	1	If I do not know the meaning of a new word, I try to guess the meaning by means of its root, prefix or suffix.	DET	3.29	1.07
18	19	I remember groups of words which are connected in some way. (e.g: yellow-green-blue)	MEM	3.23	1.20
19	41	I learn the lyrics of songs, which help me to learn more words.	MEM	3.23	1.38
20	36	If the words takes place in phrasal verbs, I learn these phrasal verbs, too. (e.g. take→take on, take off, take up)	MEM	3.22	1.13
21	46	When I learn a new word, I say it many times to remember its pronunciation and meaning.	COG	3.21	1.22
22	21	When I learn a new word or a phrase, I try to associate it with the words that I already know.	MEM	3.17	1.14
23	65	When I read a newspaper or magazine in English, I underline the new words.	MET	3.08	1.41
24	16	I learn the meaning of a word better when I look it up in a Picture dictionary	MEM	2.98	1.37
25	32	I learn the different grammatical usages of target words (e.g.: I felt	MEM	2.98	1.17

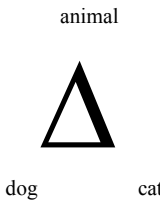|					
		shy; I felt the wind; I felt that I was wrong).			
26	47	I learn the synonyms and antonyms of target words	MEM	2.96	1.15
27	60	When I match pictures with words I have to learn I memorize better.	MEM	2.94	1.31
28	59	I review the new words I learned after a certain time. (e.g. a day, a week, a month later)	MET	2.94	1.27
29	18	In order to remember words or phrases I think of imaginary pictures in my mind. (e.g. "grin" reminds me a funny character, Kemal Sunal.)	MEM	2.90	1.34
30	39	I pay attention to the root or prefix, suffix to reinforce its meaning.	MEM	2.88	1.21
31	71	When I read an English text, I do not look each new word up in a dictionary but only when I meet it again.	MET	2.87	1.28
32	25	I try to remember the sample sentences including the new words or phrases.	MEM	2.86	1.19
33	37	I remember the pronunciation of a word by connecting it to other words with the same sound.	MEM	2.89	1.17
34	11	When I am listening to a native speaker, I try to guess the meaning of a word or expression by paying attention to his/her intonation.	DET	2.77	1.26
35	4	When I do not know a word, I ask the teacher to translate it into Turkish.	DET	2.76	1.14
36	53	I write different forms of the new words in a note-book (e.g. verb, noun, adjective)	COG	2.72	1.33
37	66	I look for opportunities to assemble new words.	MET	2.69	1.18
38	52	I study the vocabulary lists at the end of the text book..	COG	2.69	1.23
39	33	I group the words I want to remember (e.g. by color, size, function, good/ bad or any feature that makes sense to me)	MEM	2.68	1.17
40	64	I test myself to check my progress in learning the new words.	MET	2.65	1.24
41	58	I try to learn a number of new words each day.	MET	2.64	1.23
42	22	In order to learn a word I make use of meanings or feelings that word connotes. (e.g. white: innocence)	MEM	2.63	1.26
43	5	When I do not know a word, I ask the teacher to explain the meaning of the word in English.	SOC/D	2.53	1.03
44	3	When I do not know the meaning of a word, I use a monolingual dictionary.	DET	2.52	1.00
45	54	I write notes and messages in English using the new words.	COG	2.51	1.23
46	17	I learn the meanings of the new words better by looking at the pictures than reading definitions.	MEM	2.47	1.20
47	44	I write the new words several times not to forget their meanings and spellings.	COG	2.44	1.27
48	35	When I learn new words, I link them together into a sentence or a story to create a connection with the ones that I already know.	MEM	2.43	1.14
49	27	I use a combination of sounds and images to remember the new word.	MEM	2.42	1.29
50	23	To remember the adjectives, I try to set them in a scale (e.g.enormous-big small)	MEM	2.33	1.18

		.			
51	6	When I do not know a word, I askthe teacher to make a sentence including the new word.	SOC/D	2.31	1.14
52	26	When I learn a number of words, I imagine them in different places in a room so that I can remember	MEM	2.29	1.27
53	29	I study with my friends to consolidate meaning of words.	SOC/C	2.24	1.12
54	15	I try to use the words or expressions I learned either with my friends or native speakers not to forget them.	SOC/C	2.22	1.25
55	49	I write the new words on cards which contain the English word on one side and its Turkish meaning on the other side.	COG	2.22	1.30
56	42	When learning a new word, I physically act it out to remember its meaning. (e.g. blink my eyes)	MEM	2.18	1.19
57	51	When I have free time, I read one side of these cards and try to remember the meaning on the other side.	COG	2.13	1.24
58	68	I set long term goals to increase my vocabulary. (500 words by the end of the year	MET	2.05	1.22
59	38	I use rhyme to remember new words.	MEM	2.03	1.20
60	24	I arrange the words into a diagram with a key word at the top and related words as branches linked to the keyword. . (e.g. hospital→doctor-nurse-patient.)	MEM	1.96	1.05
61	55	While watching TV, I write down the words I heard and remembered.	COG	1.94	1.21
62	50	I take the cards which contain English words on one side and Turkish meaning on the other side	COG	1.82	1.0
63	8	If I do not know the meaning of a word, I try to discover the meaning through group work activities.	SOC/D	1.69	.99
64	34	I learn the words writing them on a sheet in a particular shape. e.g. animal △ dog cat	MEM	1.44	.92
65	43	When I learn new words with similar meanings, I draw a grid to remember the meaning. 		hands	sky	weather	 	Clean	✔			 	Clear		✔	✔		MEM	1.33	.66
66	57	I keep a diary in English	COG	1.29	.74

Note: DET: Determination; SOC/D: Social/Discover; MEM: Memory; SOC/C: Social/Consolidation; COG: Cognitive; MET: Metacognitive

**APPENDIX D: MEANS AND STANDARD DEVIATIONS FOR THE RESPONSES OF
PARTICIPANTS TO VLSQ ITEMS IN TERMS OF USEFULNESS**

No	Str. No	Strategy	Strategy Group	M	SD
1	9	If I do not know the word in a written text, I try to guess the meaning of it from the surrounding sentences	DET	2.83	.44
2	61	When I learn new words in the class, I write them anywhere available	COG	2.82	.47
3	62	I do exercises in the special vocabulary sections of the text books.	COG	2.76	.53
4	36	If the words takes place in phrasal verbs, I learn these phrsal verbs, too. (e.g. take→take on, take off, take up)	MEM	2.75	.52
5	63	I pay attention to the words of native speakers when I speak with them	MET	2.75	.51
6	40	When I read or hear the explanation of a word, I remember the word I have learned before	MEM	2.74	.50
7	30	To learn a new word I try to visualize it.	MEM	2.74	.53
8	28	If the word I want to learn has more than one meaning, I learn them , too. (e.g. soil: stain, earth)	MEM	2.72	.56
9	1	If I do not know the meaning of a new word, I try to guess the meaning by means of its root, prefix or suffix.	DET	2.71	.54
10	20	I try to remember words by connecting them to something in Turkish (e.g. sabotage-sabotaj).	MEM	2.71	.58
11	15	I try to use the words or expressions I learned either with my friends or native speakers not to forget them.	SOC/C	2.70	.56
12	31	In order to learn the meaning of a word I try to guess which part of speech it belongs to (adjective, noun etc.)	DET	2.69	.58
13	13	In order to learn words, I pay attention to those words which are used together very often, and I try to learn these words together (e.g. correct answer, true story)	MEM	2.69	.55
14	59	I review the new words I learned after a certain time. (e.g. a day, a week, a month later)	MET	2.68	.59
15	47	I learn the synonyms and antonyms of target words	MEM	2.64	.58
16	65	When I read a newspaper or magazine in English, I underline the new words.	MET	2.64	.62
17	58	I try to learn a number of new words each day.	MET	2.64	.64
18	19	I remember groups of words which are connected in some way. (e.g: yellow-green-blue)	MEM	2.63	.61
19	46	When I learn a new word, I say it many times to remember its pronunciation and meaning.	COG	2.62	.58
20	5	When I do not know a word, I ask the teacher to explain the meaning of the word in English.	SOC/D	2.62	.65
21	6	When I do not know a word, I askthe teacher to make a sentence including the new word.	SOC/D	2.62	.62
22	2	When I do not know the meaning of a word, I use a bilingual dictionary.	DET	2.62	.61
23	32	I learn the different grammatical usages of target words (e.g.: I felt shy; I felt the wind; I felt that I was wrong).	MEM	2.61	.64
24	54	I write notes and messages in English using the new words.	COG	2.60	.64
25	52	I study the vocabulary lists at the end of the text book..	COG	2.59	.66
26	21	When I learn a new word or a phrase, I try to associate it	MEM	2.59	.62

		with the words that I already know.			
27	25	I try to remember the sample sentences including the new words or phrases.	MEM	2.58	.57
28	53	I write different forms of the new words in a note-book (e.g. verb, noun, adjective)	COG	2.57	.68
29	14	When I do not know a word, I try to guess it by connecting it to a word in Turkish.	DET	2.56	.66
30	3	When I do not know the meaning of a word, I use a monolingual dictionary.	DET	2.56	.66
31	10	When I am watching TV, I try to guess the meaning of a word by paying attention to gestures	DET	2.56	.67
32	66	I look for opportunities to assemble new words.	MET	2.56	.64
33	64	I test myself to check my progress in learning the new words.	MET	2.54	.68
34	16	I learn the meaning of a word better when I look it up in a Picture dictionary	MEM	2.54	.67
35	69	When I encounter a new word in a text, I stop reading and look it up in a dictionary.	DET	2.54	.70
36	41	I learn the lyrics of songs, which help me to learn more words.	MEM	2.53	.69
37	35	When I learn new words, I link them together into a sentence or a story to create a connection with the ones that I already know.	MEM	2.53	.63
38	33	I group the words I want to remember (e.g. by color, size, function, good/ bad or any feature that makes sense to me)	MEM	2.52	.65
39	60	When I match pictures with words I have to learn I memorize better.	MEM	2.51	.67
40	12	I make a list of words with their meanings to memorize them.	DET	2.50	.71
41	18	In order to remember words or phrases I think of imaginary pictures in my mind. (e.g. "grin" reminds me a funny character, Kemal Sunal.)	MEM	2.48	.71
42	51	When I have free time, I read one side of these cards and try to remember the meaning on the other side.	COG	2.46	.72
43	11	When I am listening to a native speaker, I try to guess the meaning of a word or expression by paying attention to his/her intonation.	DET	2.44	.70
44	7	If I do not know a word, I ask my classmates for meaning.	SOC/D	2.40	.75
45	39	I pay attention to the root or prefix, suffix to reinforce its meaning.	MEM	2.40	.69
46	37	I remember the pronunciation of a word by connecting it to other words with the same sound.	MEM	2.37	.67
47	49	I write the new words on cards which contain the English word on one side and its Turkish meaning on the other side.	COG	2.37	.75
48	29	I study with my friends to consolidate meaning of words.	SOC/C	2.34	.76
49	22	In order to learn a word I make use of meanings or feelings that word connotes. (e.g. white: innocence)	MEM	2.34	.74
50	44	I write the new words several times not to forget their	COG	2.33	.78

		meanings and spellings.			
51	24	I arrange the words into a diagram with a key word at the top and related words as branches linked to the keyword. . (e.g. hospital→doctor-nurse-patient.)	MEM	2.32	.73
52	55	While watching TV, I write down the words I heard and remembered.	COG	2.30	.73
53	23	To remember the adjectives, I try to set them in a scale (e.g.enormous-big small) .	MEM	2.30	.76
54	27	I use a combination of sounds and images to remember the new word.	MEM	2.29	.76
55	71	When I read an English text, I do not look each new word up in a dictionary but only when I meet it again.	MET	2.29	.77
56	26	When I learn a number of words, I imagine them in different places in a room so that I can remember	MEM	2.29	.77
57	68	I look for opportunities to assemble new words.	MET	2.29	.74
58	4	When I do not know a word, I ask the teacher to translate it into Turkish.	DET	2.21	.78
59	17	I learn the meanings of the new words better by looking at the pictures than reading definitions.	MEM	2.19	.74
60	50	I take the cards which contain English words on one side and Turkish meaning on the other side	COG	2.18	.77
61	42	When learning a new word, I physically act it out to remember its meaning (e.g. blink my eyes to learn "blink").	MEM	2.15	.78
62	8	If I do not know the meaning of a word, I try to discover the meaning through group work activities.	SOC/D	2.13	.79
63	57	I keep a diary in English	COG	2.10	.84
64	38	I use rhyme to remember new words.	MEM	2.00	.74
65	34	I learn the words writing them on a sheet in a particular shape. e.g. animal △ dog cat	MEM	1.97	.75
66	43	When I learn new words with similar meanings, I draw a grid to remember the meaning.	MEM	1.86	.74

For item 66, the grid:

	hands	sky	weather
Clean	✔		
Clear		✔	✔

Note: DET: Determination; SOC/D: Social/Discovery; MEM: Memory; SOC/C: Social/Consolidation; COG: Cognitive; MET: Metacognitive

APPENDIX E: MULTIPLE REGRESSION ANALYSES RESULTS

1.Regression Analysis Results for All of the Participants
1a. Regression Analysis Results for 2000-Level Scores

Model		B	Std. Error	ß	t	p
1	(Constant)	8.193	1.403		5.838	.000
	DET	.230	.563	.035	.409	.683
	SOC/D	-.228	.371	-.043	-.613	.540
	SOC/C	.176	.245	.051	.718	.474
	MEM	.561	.566	.096	.991	.323
	COG	-.524	.438	-.106	-1.194	.233
	MET	.315	.417	.071	.755	.451

R=.144   R²=.021   F= .862   p= .523

Note: DET: Determination; SOC/D: Social/Discovery; SOC/C: Social/Consolidation; MEM: Memory; COG: Cognitive; MET: Metacognitive

1b. Regression Analysis Results for 3000-Level Scores

Model		B	Std. Error	ß	t	p
1	(Constant)	6.832	1.946		3.510	.001
	DET	-.726	.781	-.081	-.930	.353
	SOC/D	-.180	.515	-.025	-.349	.727
	SOC/C	.085	.339	.018	.250	.803
	MEM	1.329	.785	.163	1.693	.092
	COG	-.661	.608	-.096	-1.087	.278
	MET	.540	.579	.088	.933	.352

R=.146   R²=.022   F= .910   p= .488

1c. Regression Analysis Results for 5000-Level Scores

Model		B	Std. Error	ß	t	p
1	(Constant)	4.497	1.589		2.830	.005
	DET	.011	.638	.001	.017	.987
	SOC/D	-.076	.420	-.013	-.181	.856
	SOC/C	-.409	.277	-.105	-1.476	.141
	MEM	.663	.641	.100	1.035	.302
	COG	-.423	.496	-.076	-.853	.395
	MET	.495	.473	.099	1.047	.296
R=.137 R²=.019 F= .789 p= .581						

1d. Regression Analysis Results for University-Level Scores

Model		B	Std. Error	ß	t	p
1	(Constant)	2.678	1.717		1.560	.120
	DET	-.142	.689	-.018	-.206	.837
	SOCD	-.027	.454	-.004	-.059	.953
	SOCC	-.080	.299	-.019	-.266	.791
	MEM	1.139	.692	.158	1.645	.101
	COG	-.648	.536	-.107	-1.209	.228
	MET	.611	.511	.112	1.196	.233
R=.171 R²=.029 F= 1.228 p= .293						

1e. Regression Analysis Results for 10000-Level Scores

Model		B	Std. Error	ß	t	p
1	(Constant)	1.546	.974		1.588	.113
	DET	.104	.391	.023	.267	.790
	SOC/D	-.375	.258	-.102	-1.458	.146
	SOC/C	-.150	.170	-.062	-.881	.379
	MEM	.868	.393	.212	2.210	.028
	COG	-.445	.304	-.129	-1.464	.145
	MET	.015	.290	.005	.052	.959
R=.187 R²=.035 F= 1. 485 p= .184						

1e. Regression Analysis Results for Total Scores

Model		B	Std. Error	ß	t	p
1	(Constant)	23.777	6.093		3.902	.000
	DET	-.536	2.445	-.019	-.219	.827
	SOC/D	-.876	1.612	-.038	-.544	.587
	SOC/C	-.393	1.063	-.026	-.370	.712
	MEM	4.629	2.457	.181	1.884	.061
	COG	-2.737	1.903	-.127	-1.438	.152
	MET	1.951	1.813	.101	1.076	.283

R=.171   R²=.029   F= 1. 233   p= .290

2. Regression Analysis Results for the Upper-Intermediate Group

2a. Regression Analysis Results for 2000-Level Scores

Model		B	Std. Error	ß	t	p
1	(Constant)	11.280	2.778		4.061	.000
	DET	.169	1.074	.026	.157	.876
	SOC/D	-1.197	.567	-.286	-2.112	.039
	SOC/C	.471	.475	.137	.991	.326
	MEM	.152	1.045	.026	.146	.885
	COG	-.171	.856	-.039	-.200	.842
	MET	.878	.772	.212	1.137	.260

R=.363   R²=.132   F= 1. 418   p= .224

2b. Regression Analysis Results for 3000-Level Scores

Model		B	Std. Error	ß	t	p
1	(Constant)	10.721	3.188		3.363	.001
	DET	-1.449	1.232	-.186	-1.175	.245
	SOC/D	-1.120	.651	-.223	-1.721	.091
	SOC/C	-.792	.545	-.192	-1.452	.152
	MEM	1.770	1.199	.254	1.477	.145
	COG	.460	.982	.087	.468	.641
	MET	1.334	.886	.268	1.505	.138

R=.457   R²=.209   F= 2. 470   p= .034

2c. Regression Analysis Results for 5000-Level Scores

Model		B	Std. Error	ß	t	p
1	(Constant)	6.906	3.637		1.899	.063
	DET	.123	1.406	.015	.088	.930
	SOC/D	-.648	.742	-.121	-.872	.387
	SOC/C	-1.042	.622	-.238	-1.676	.099
	MEM	1.079	1.368	.146	.789	.433
	COG	.242	1.120	.043	.216	.830
	MET	.618	1.011	.117	.611	.543
R=.297 R²=.088 F= .904 p= .499						

2d. Regression Analysis Results for University-Level Scores

Model		B	Std. Error	ß	t	p
1	(Constant)	2.944	3.377		.872	.387
	DET	.738	1.306	.092	.565	.574
	SOC/D	-.689	.689	-.133	-1.000	.322
	SOC/C	-.363	.578	-.085	-.628	.533
	MEM	.330	1.270	.046	.260	.796
	COG	.999	1.040	.183	.960	.341
	MET	1.045	.939	.203	1.113	.270
R=.409 R²=.167 F= 1. 876 p= .101						

2e. Regression Analysis Results for 10000-Level Scores

Model		B	Std. Error	ß	t	p
1	(Constant)	1.319	2.218		.595	.555
	DET	-.153	.858	-.030	-.178	.859
	SOC/D	-.500	.453	-.151	-1.104	.274
	SOC/C	-.378	.379	-.139	-.996	.323
	MEM	1.311	.834	.285	1.571	.122
	COG	.725	.683	.208	1.061	.293
	MET	-.368	.617	-.112	-.596	.553
R=.346 R²=.120 F= 1. 1270 p= .286						

2f. Regression Analysis Results for Total Scores

Model		B	Std. Error	ß	t	p
1	(Constant)	32.873	11.724		2.804	.007
	DET	-.656	4.533	-.023	-.145	.885
	SOC/D	-4.130	2.393	-.228	-1.726	.090
	SOC/C	-2.085	2.005	-.141	-1.040	.303
	MEM	4.907	4.409	.196	1.113	.271
	COG	2.050	3.611	.108	.568	.572
	MET	3.596	3.260	.201	1.103	.275

R=.415 R²=.173   F= 1. 947   p= .089

3. Regression Analysis Results for the Intermediate Group

3a. Regression Analysis Results for 2000-Level Scores

Model		B	Std. Error	ß	t	p
1	(Constant)	6.552	2.564		2.556	.013
	DET	1.032	.945	.194	1.092	.280
	SOC/D	.723	.788	.139	.917	.363
	SOC/C	-.026	.333	-.010	-.078	.938
	MEM	.398	1.105	.076	.360	.720
	COG	.271	.705	.064	.384	.702
	MET	-.893	.770	-.207	-1.160	.251

R=.279 R²=.078   F=.787   p= .584

3b. Regression Analysis Results for 3000-Level Scores

Model		B	Std. Error	ß	t	p
1	(Constant)	5.969	3.830		1.558	.125
	DET	-.479	1.412	-.061	-.339	.736
	SOC/D	.183	1.178	.024	.155	.877
	SOC/C	.099	.497	.027	.199	.843
	MEM	1.635	1.651	.212	.991	.326
	COG	-1.250	1.053	-.201	-1.187	.240
	MET	1.047	1.150	.164	.910	.367

R=.253 R²=.064   F=.637   p= .700

3c. Regression Analysis Results for 5000-Level Scores

Model		B	Std. Error	ß	t	p
1	(Constant)	6.834	3.174		2.153	.036
	DET	-.732	1.170	-.114	-.625	.534
	SOC/D	.631	.976	.100	.647	.520
	SOC/C	-.051	.412	-.017	-.124	.902
	MEM	.065	1.368	.010	.048	.962
	COG	-.701	.873	-.138	-.803	.426
	MET	.443	.953	.085	.465	.644
R=.174 R²=.030 F=.291 p= .938						

3d. Regression Analysis Results for University-Level Scores

Model		B	Std. Error	ß	t	p
1	(Constant)	3.351	3.435		.976	.333
	DET	-1.165	1.267	-.161	-.920	.362
	SOC/D	.746	1.056	.105	.706	.483
	SOC/C	.500	.446	.148	1.122	.267
	MEM	1.544	1.480	.218	1.043	.301
	COG	-1.504	.944	-.264	-1.593	.117
	MET	.600	1.032	.103	.582	.563
R=.320 R²=.103 F=1.068 p= .392						

3e. Regression Analysis Results for 10000-Level Scores

Model		B	Std. Error	ß	t	p
1	(Constant)	4.611	2.528		1.824	.073
	DET	-.743	.932	-.139	-.798	.428
	SOC/D	-.723	.777	-.138	-.930	.356
	SOC/C	-.226	.328	-.090	-.690	.493
	MEM	1.659	1.089	.317	1.523	.133
	COG	-1.726	.695	-.408	-2.483	.016
	MET	.708	.759	.163	.933	.355
R=.338 R²=.114 F=1.201 p= .319						

3a. Regression Analysis Results for Total Scores

Model		B	Std. Error	ß	t	p
1	(Constant)	27.410	11.073		2.475	.016
	DET	-1.954	4.083	-.085	-.478	.634
	SOC/D	1.540	3.404	.068	.452	.653
	SOC/C	.272	1.436	.025	.190	.850
	MEM	5.419	4.772	.241	1.136	.261
	COG	-4.942	3.045	-.273	-1.623	.110
	MET	1.684	3.326	.091	.506	.615

R=.275 R²=.076   F=.763   p= .602

4. Regression Analysis Results for the Pre-Intermediate Group
4a. Regression Analysis Results for 2000-Level Scores

Model		B	Std. Error	ß	t	p
1	(Constant)	6.982	2.316		3.014	.004
	DET	1.397	.997	.267	1.401	.167
	SOC/D	-.340	.745	-.076	-.456	.650
	SOC/C	.540	.560	.192	.965	.339
	MEM	-1.670	.993	-.383	-1.682	.098
	COG	.738	.777	.184	.949	.347
	MET	-.167	.689	-.052	-.242	.810

R=.280 R²=.078   F=.780   p= .589

4b. Regression Analysis Results for 3000-Level Scores

Model		B	Std. Error	ß	t	p
1	(Constant)	4.029	3.026		1.331	.189
	DET	1.605	1.303	.233	1.232	.223
	SOC/D	-.856	.974	-.146	-.879	.383
	SOC/C	.942	.732	.255	1.288	.203
	MEM	-2.404	1.297	-.419	-1.854	.069
	COG	.752	1.016	.143	.741	.462
	MET	.308	.900	.073	.343	.733

R=.306 R²=.093   F=.945   p= .471

4c. Regression Analysis Results for 5000-Level Scores

Model		B	Std. Error	ß	t	p
1	(Constant)	1.565	1.964		.797	.429
	DET	1.105	.845	.249	1.307	.197
	SOC/D	-.459	.632	-.121	-.726	.471
	SOC/C	-.321	.475	-.134	-.677	.502
	MEM	.079	.842	.021	.094	.925
	COG	-.478	.659	-.140	-.725	.471
	MET	.586	.584	.216	1.003	.320

R=.292 R²=.085   F=.853   p= .535

4d. Regression Analysis Results for University-Level Scores

Model		B	Std. Error	ß	t	p
1	(Constant)	.451	2.182		.206	.837
	DET	.777	.939	.151	.827	.412
	SOCD	-.256	.702	-.058	-.365	.717
	SOCC	-.342	.528	-.124	-.648	.519
	MEM	.134	.935	.031	.143	.886
	COG	-.926	.732	-.235	-1.264	.211
	MET	1.497	.649	.476	2.306	.025

R=.392 R²=.154   F=1.663   p= .148

4e. Regression Analysis Results for 10000-Level Scores

Model		B	Std. Error	ß	t	p
1	(Constant)	1.136	1.262		.900	.372
	DET	.399	.543	.138	.735	.465
	SOC/D	-.897	.406	-.364	-2.209	.031
	SOC/C	.352	.305	.227	1.154	.254
	MEM	.279	.541	.116	.515	.608
	COG	-.167	.423	-.075	-.394	.695
	MET	-.141	.375	-.080	-.376	.709

R=.320 R²=.103   F=1.049   p= .404

4f. Regression Analysis Results for Total Scores

Model		B	Std. Error	ß	t	p
1	(Constant)	14.180	5.594		2.535	.014
	DET	5.306	2.408	.401	2.204	.032
	SOC/D	-2.792	1.800	-.247	-1.551	.127
	SOC/C	1.104	1.352	.155	.817	.418
	MEM	-3.603	2.397	-.327	-1.503	.139
	COG	-.043	1.877	-.004	-.023	.982
	MET	2.077	1.664	.257	1.249	.217

R=.401 R²=.161   F=1.761   p= .124

5. Regression Analysis Results for the Beginner Group
5a. Regression Analysis Results for 2000-Level Scores

Model		B	Std. Error	ß	t	p
1	(Constant)	4.257	2.174		1.958	.055
	DET	.295	.873	.061	.338	.737
	SOC/D	.168	.559	.042	.300	.765
	SOC/C	-.438	.518	-.137	-.847	.400
	MEM	.760	.809	.174	.940	.351
	COG	-.948	.774	-.235	-1.225	.226
	MET	1.138	.634	.338	1.796	.078

R=.358 R²=.128   F=1.399   p= .231

5b. Regression Analysis Results for 3000-Level Scores

Model		B	Std. Error	ß	t	p
1	(Constant)	2.671	2.381		1.122	.267
	DET	-1.008	.956	-.195	-1.054	.296
	SOC/D	.481	.612	.113	.785	.436
	SOC/C	-.549	.567	-.161	-.969	.336
	MEM	1.604	.886	.344	1.811	.075
	COG	.817	.848	.189	.963	.339
	MET	-.602	.694	-.167	-.867	.390

R=.295 R²=.087   F=.906   p= .498

5c. Regression Analysis Results for 5000-Level Scores

Model		B	Std. Error	ß	t	p
1	(Constant)	2.272	2.392		.950	.346
	DET	-.237	.961	-.046	-.247	.806
	SOC/D	-.186	.615	-.044	-.302	.764
	SOC/C	-.052	.569	-.016	-.092	.927
	MEM	-.047	.890	-.010	-.052	.958
	COG	.365	.852	.086	.429	.670
	MET	.702	.697	.198	1.007	.318

R=.225 R²=.050   F=.505   p= .802

5d. Regression Analysis Results for University-Level Scores

Model		B	Std. Error	ß	t	p
1	(Constant)	1.925	1.961		.982	.330
	DET	-.731	.788	-.174	-.927	.358
	SOC/D	-.052	.504	-.015	-.104	.918
	SOC/C	-.239	.467	-.086	-.513	.610
	MEM	.989	.729	.262	1.356	.180
	COG	.515	.698	.147	.737	.464
	MET	-.107	.572	-.037	-.187	.852

R=.237 R²=.056   F=.566   p= .755

5e. Regression Analysis Results for 10000-Level Scores

Model		B	Std. Error	ß	t	p
1	(Constant)	.154	1.406		.110	.913
	DET	.784	.565	.261	1.387	.171
	SOC/D	-.419	.362	-.170	-1.159	.251
	SOC/C	-.075	.335	-.038	-.223	.824
	MEM	.004	.523	.001	.007	.995
	COG	.103	.501	.041	.206	.837
	MET	-.253	.410	-.121	-.617	.540

R=.235 R²=.055   F=.553   p= .765

5f. Regression Analysis Results for Total Scores

Model		B	Std. Error	ß	t	p
1	(Constant)	11.388	6.746		1.688	.097
	DET	-.942	2.710	-.064	-.347	.730
	SOC/D	.000	1.734	.000	.000	1.000
	SOC/C	-1.380	1.606	-.143	-.859	.394
	MEM	3.313	2.509	.252	1.320	.192
	COG	.870	2.402	.071	.362	.719
	MET	.887	1.966	.087	.451	.654

R=.282 R²=.080   F=.821   p= .559

CURRICULUM VITAE

Yunus BOZGEYİK was born in Oğuzeli, Gaziantep in 1985. He graduated from the English Language and Literature department at Boğaziçi University in 2008. In 2009, he started working as an instructor at the Higher School of Foreign Languages of the University of Gaziantep. He speaks English fluently.

ÖZGEÇMİŞ

Yunus BOZGEYİK 1985 yılında Gaziantep'in Oğuzeli ilçesinde doğdu. Boğaziçi Üniversitesi İngiliz Dili ve Edebiyatı bölümünden 2008 yılında mezun oldu. 2009 yılında Gaziantep Üniversitesi Yabancı Diller Yüksekokulunda okutman olarak çalışmaya başladı.İyi derecede İngilizce konuşmaktadır.