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DOKUZ EYLÜL ÜNİVERSİTESİ
EĞİTİM BİLİMLERİ ENSTİTÜSÜ



DEPARTMENT OF FOREIGN LANGUAGE EDUCATION
ENGLISH LANGUAGE TEACHING PROGRAM
DOCTORAL DISSERTATION

**A COMPARATIVE STUDY ON THE USE OF VOCABULARY
STRATEGIES BY TURKISH ESL LEARNERS IN THE UK AND
EFL LEARNERS IN TURKEY**

VESİLE GÜL YILMAZ

İzmir
2021

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DANIŞMAN

Dr. Öğretim Üyesi Berna Çöker

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2021**

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ABSTRACT
A COMPARATIVE STUDY ON THE USE OF VOCABULARY
STRATEGIES BY TURKISH ESL LEARNERS IN THE UK and EFL
LEARNERS IN TURKEY

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The goal of this research is to investigate the role of language learning context (EFL or ESL) in the use of vocabulary learning strategies (VLS) of Turkish students. In other words, this research aims to find an answer to the question whether the vocabulary learning strategies deployed by Turkish ESL learners in the UK and EFL learners in Turkey differ significantly from each other. Students' frequency of VLS use and their views on the usefulness of VLSs have been taken into account in the study.

A descriptive research design was employed in the study. The participants in the study were recruited from two contexts; namely, ESL and EFL. The ESL participants were 49 Turkish students pursuing their graduate education in a variety of departments at 21 universities in the UK while the EFL participants were 79 graduate students attending all-English departments at 27 Turkish universities. Study data were collected via 'Vocabulary Learning Strategies Questionnaire' and the 'Vocabulary Levels Test'. Descriptive statistics (such as mean and standard deviation), *t* test, analysis of variance (ANOVA), analysis of covariance (ANCOVA) and multivariate analysis of variance (MANOVA) were utilized in the data analyses.

Research results revealed a significant difference between ESL (the UK) and EFL (Turkey) learners' frequency of VLS use in favour of EFL learners. However, gender and academic major were not found to have any significant effect on learners' VLS use. Moreover, discovery-determination strategies were the most frequently used VLS category while consolidation-social strategies were the least frequently used category. Additionally, further analyses on VLS use by high-level learners in both language learning contexts have been provided as part of the study.

Keywords: Vocabulary learning strategy, achievement, language learning context, ESL, EFL.

ÖZET

İNGİLİZCEYİ TÜRKİYE’DE “YABANCI DİL” VE İNGİLTERE’DE “İKİNCİ DİL” OLARAK ÖĞRENEN TÜRK ÖĞRENCİLERİN KULLANDIKLARI SÖZCÜK ÖĞRENME STRATEJİLERİNİN KARŞILAŞTIRILMASI

Gül Yılmaz, Vesile

Doktora, İngilizce Öğretmenliği

Dr. Öğretim Üyesi Berna Çöker

Bu çalışmada amaç, İngilizceyi İngiltere’de ‘ikinci dil’ olarak öğrenen Türk öğrenciler ile Türkiye’de ‘yabancı dil’ olarak öğrenen öğrencilerin kullandıkları Sözcük Öğrenme Stratejilerini (SÖS) incelemektir. Diğer bir deyişle, bu çalışma, İngilizceyi Türkiye’de ‘yabancı dil’ olarak öğrenen öğrenciler ile İngiltere’de ‘ikinci dil’ olarak öğrenen Türk öğrenciler arasında sözcük öğrenme stratejilerini kullanımları bakımından bir fark olup olmadığı sorusunu cevaplamayı amaçlamaktadır. Çalışmada, öğrencilerin SÖS’ü kullanım sıklıkları ve SÖS’ün yararlılıklarına ilişkin görüşleri de dikkate alınmıştır.

Çalışmada, betimsel araştırma yöntemi kullanılmıştır. Çalışmanın örneklemi ‘ikinci dil’ ve ‘yabancı dil’ bağlamı olmak üzere iki bağlamda yer alan öğrenciler olmuştur. “İkinci dil” bağlamı için İngiltere’deki 21 farklı üniversitede lisansüstü öğrenimlerine devam eden 49 Türk öğrenci, ‘yabancı dil’ bağlamı için ise Türkiye’de yer alan 27 farklı üniversitede tamamı İngilizce olan lisansüstü programlara devam eden 79 öğrenci çalışmaya dahil edilmiştir. Veriler ‘Sözcük Öğrenme Stratejileri Anketi’ ve ‘Sözcük Bilgi Düzeyi Testi’ ile toplanmıştır. Veri analizinde, ortalama ve standart sapma gibi tanımlayıcı istatistik yöntemlerinin yanı sıra, *t* testi, varyans analizi (ANOVA), kovaryans analizi (ANCOVA) ve çok değişkenli varyans analizi (MANOVA) teknikleri kullanılmıştır.

Bu çalışmanın sonucunda, İngilizceyi İngiltere’de ‘ikinci dil’ olarak kullanan Türk öğrenciler ile Türkiye’de ‘yabancı dil’ olarak kullanan öğrencilerin SÖS’ü kullanımları arasında (‘yabancı dil’ ortamı lehine) anlamlı bir fark bulunmuştur. Bunun yanında, öğrencilerin bu stratejileri kullanım sıklıkları ve yararlılıklarına ilişkin görüşleri de karşılaştırılmıştır. Ancak, öğrencilerin cinsiyetleri ve akademik bölümlerinin onların SÖS’ü kullanımları üzerinde anlamlı bir etkisi olmadığı görülmüştür. Ayrıca, keşif-belirleme stratejileri en sık kullanılan; pekiştirme-sosyal stratejiler ise en az kullanılan SÖS

kategorileri olarak bulunmuşlardır. Ek olarak, çalışmada, her iki dil öğrenme ortamındaki başarılı öğrencilerin strateji kullanımlarına ilişkin analizlere de yer verilmiştir.

Anahtar Kelimeler: Sözcük öğrenme stratejileri, başarı, dil öğrenme bağlamı, ikinci dil olarak ingilizce, yabancı dil olarak ingilizce.



CHAPTER I

INTRODUCTION

This chapter will shed light onto the rationale behind the study with some background information as well as the significance of the study. Moreover, the purpose of the study, research question and sub-questions, definitions of the terms, assumptions and limitations have all been provided in this chapter.

1.1. Background of the Study

Starting from the late 1970s, there has been “widespread research interest in the strategies which learners use in learning and using second languages” (Macaro, 2006, p. 320). An attempt to pinpoint the reasons why some learners achieve better results than their peers – under the same conditions – has led to an explosion in the amount of research into language learning strategies (LLSs) (Pavicic Takac, 2008). Vocabulary learning strategies (VLSs), a part of LLSs, occupy a vital role in English language teaching because they foster the development of all four skills. Researchers have chosen to study VLSs in different ways. Hence, some of the research effort has been into the use of an individual (particular / micro) VLS such as *dictionary use* (Baxter, 1980; Hulstijn, Hollander, & Greidanus, 1996; Laufer & Hadar, 1997) *keyword method* (Avila & Sadoski, 1996; Shapiro & Waters, 2005) and *semantic mapping* (Khoii & Sharififar, 2013), and some into groups of strategies such as *cognitive strategies* (Prince, 1996), *metacognitive strategies* (Çubukcu, 2008; Diaz, 2015; Rasekh & Ranjbar, 2003; Zhao, 2009) and *memory strategies* (Atay & Ozbulgan, 2007; Freyd & Baron, 1982; Morin & Goebel, 2001; Waring, 1997) while some other into the overall use of VLSs (Barcroft, 2009; Fan, 2003; Gu & Johnson, 1996; Lawson & Hogben, 1996; Schmitt, 1997).

Furthermore, studies focusing on VLSs also tend to investigate one single cultural group of learners. For instance, Çelik and Toptaş (2010) and Kütük (2007) focused their research on Turkish learners while Fan (2003), Gu and Johnson (1996), Li (2004), and Wei (2007) on Chinese learners. While Lee (2007) collected the study data from Korean learners, Ahmed Hamza, Subakir Mohd, and Aladdin (2017) and Elzubier (2016) worked with Sudanese learners. On the other hand, Firmansyah (2014) recruited Indonesian learners, and Saengpakdeejit (2014) recruited Thai learners. Still some other researchers (Boonkongsaen & Intaraprasert, 2014; Tsai & Chang, 2009; Wu, 2005) enrolled Taiwanese learners in their studies.

The reason why researchers tend to focus on learners with the same nationality (or in other words, from the same ethnic group) could be the presupposition that, as well as language learning context, culture has an important impact on the selection of learning strategies. That's why, the comparison of vocabulary strategies of learners with a similar background would most probably reveal more reliable results besides being more practical for the researcher (as there is the opportunity to conduct the data collection instruments within the same context). But, more importantly, "the need to focus on strategy use by learners with a specific nationality stems from the possible association between strategy use and culture" (Catalan, 2003, p. 56). In this respect, the present study focuses merely on Turkish graduate students in the UK (ESL) and in Turkey (EFL) to guarantee that any possible differences in VLS use between the contexts stems from the contexts themselves rather than learners' genders, academic majors or cultural backgrounds.

Most of the studies in the area handled VLSs in either EFL (Azar, 2012; Ghazal, 2007) or ESL context (Asgari & Mustapha, 2011; Brown & Perry, 1991; Mokhtar, Rawian, Yahaya, Abdullah, & Mohamed, 2009) rather than trying to give an account of the possible differences in the use of VLSs between the two contexts. However, this study aims to provide a comparison of the VLSs employed by Turkish graduate EFL and ESL students, and thus to pinpoint the role of context in VLS use.

1.2. Significance of the Study

Just like in any area in life, it is inevitable for the individual to make use of strategies while learning new words, which is of great importance for both L1 and L2. However, strategy use differs according to the culture and context in which it is used. It is possible to mention two contexts for the English language. The first one of these is the 'second language context' (ESL), where English is the mother tongue, and the second one is the 'foreign language context' (EFL), where another language rather than English is the mother tongue and English is learnt/taught as a foreign language. It is highly possible that context, which is of great importance in terms of learning/teaching a language, makes a difference in the strategies (Chamot, 2007; Gu, 2003; Oxford, 1996) learners deploy when learning a new word. In this respect, finding an answer to the question 'whether the VLSs used by Turkish ESL learners in the UK and EFL learners in Turkey are different' will be highly useful when planning teaching of vocabulary in certain contexts. Finding an answer to the question whether there is a significant difference in VLS use between the ESL and EFL contexts might help us in many ways: (a) It can help us get a better insight into the ways learners

learn new vocabulary when studying a foreign language. (b) It can help us understand whether context itself can make vocabulary learning easier, as it has long been claimed by study abroad programmes and companies. (c) We can get to know what facilitates vocabulary learning better in one context over the other. (d) Language teachers might use the information from the study in their classes to facilitate a more efficient use of VLSs and thus more effective vocabulary learning. (e) Curriculum planners and textbook writers, as well as language teachers, can benefit from the findings as to the characteristics of the context where a variety of VLSs are used with success.

In this respect, this research aims to find an answer to the question whether there is a difference between the VLSs used by Turkish ESL learners of the English language in the UK and EFL learners in Turkey. Out of the nature of each language learning context, the strategies employed by language learners to learn a new vocabulary item are expected to be different in the two contexts. This research aims to discover these differences. By doing so, the researcher will be able to draw conclusions about the most frequently used VLSs by high-level learners, and make generalisations about the VLS use patterns in each context, which will, in turn, have implications for language teachers and learners as well as curriculum developers with the goal of promoting effective strategy use in vocabulary learning in each/either context.

In order to be able to eliminate the effects of some other factors (such as students' genders and academic majors) that have the potential to affect the VLSs learners deploy, and by investigating only students with a similar background, the researcher is going to collect this kind of personal information about the participants, and thus, will be able to make comparisons among the different groups of participants regarding these factors. In this way, the study aims to increase the reliability of the study findings. Only Turkish students attending master's and doctorate programs in the UK or in Turkey will be recruited as participants. Through this research, the researcher aims to discover what strategies the students attending graduate programs (master's and doctorate) in a variety of departments at a variety of universities in Turkey and in the UK deploy when learning new vocabulary.

As already mentioned, it seems likely that vocabulary learning experiences of ESL learners in the UK will be quite different from those of EFL learners in Turkey. In this respect, conducting the research and, thus, shedding light on the process can be highly useful for the planning of vocabulary teaching in both contexts. The suggestions to be made as a result of the research will give some clues about how to teach new vocabulary in different contexts and what strategies are more effective in each context. In this way, the study

findings will be a guideline both for language teachers and learners as well as for curriculum designers and course-book writers. That is why it is necessary to conduct this research.

1.3. Purpose of the Study

The goal of this research is to compare the vocabulary learning strategies (VLSs) used by Turkish ESL learners in the UK and EFL learners in Turkey and discover the relationship between VLS use and vocabulary achievement. While making this comparison, the frequency of use of VLSs, opinions on the usefulness of VLSs and vocabulary levels of both groups of students will be taken into account. In addition, comparison of the participants in terms of their genders and academic majors will be provided.

1.4. Research Question

To what extent are the vocabulary learning strategies deployed by graduate level ESL learners in the UK and graduate level EFL learners in Turkey different and how does this correlate with vocabulary achievement?

1.4.1. Sub-Questions of the research

1. a) What strategies are deployed by Turkish ESL learners the UK?
- b) What strategies are deployed by EFL learners in Turkey?
- c) Is there a significant difference between the vocabulary learning strategies deployed by Turkish ESL learners in the UK and EFL learners in Turkey?

2. a) What VLSs are deployed by female learners in each of the ESL and EFL contexts?
- b) What VLSs are deployed by male learners in each of the ESL and EFL contexts?
- c) Is there a significant difference between the ESL and EFL contexts in terms of the VLSs deployed by female and male learners?

3. a) What strategies are deployed by arts & humanities major students in each of the ESL and EFL contexts?
- b) What strategies are deployed by science major students in each of the ESL and EFL contexts?
- c) Is there a significant relationship between the VLSs deployed by the learners and their major in each of the ESL and EFL contexts?

4. a) What strategies do Turkish ESL learners in the UK find the most useful?
- b) What strategies do EFL learners in Turkey find the most useful?

c) Is there a significant difference between the VLSs that are found the most useful by Turkish ESL learners in the UK and EFL learners in Turkey?

5. a) What VLSs are found to be the most useful by female learners in each of the ESL and EFL contexts?

b) What VLSs are found to be the most useful by male learners in each of the ESL and EFL contexts?

c) Is there a significant difference between the VLSs found to be the most useful by the female and male learners in the ESL and EFL contexts?

6. a) What strategies are found to be the most useful by arts & humanities students in each of the ESL and EFL contexts?

b) What strategies are found to be the most useful by science major students in each of the ESL and EFL contexts?

c) Is there a significant difference between the VLSs found to be the most useful by the arts & humanities major learners and science major learners in each of the ESL and EFL contexts?

7. a) What VLSs do learners with high vocabulary levels use in the ESL context?

b) What VLSs do learners with high vocabulary levels use in the EFL context?

c) Is there a statistically significant difference between the ESL and EFL contexts in terms of the VLSs used by learners with high vocabulary levels?

8. a) What VLSs do female learners with high vocabulary levels use?

b) What VLSs do male learners with high vocabulary levels use?

c) Is there a significant difference between female and male learners with high vocabulary levels in terms of their VLS use?

9. a) What VLSs do arts & humanities major students with high vocabulary levels use?

b) What VLSs do science major students with high vocabulary levels use?

c) Is there a significant difference between arts & humanities major and science major learners with high vocabulary levels in terms of their VLS use?

1.5. Definition of the Terms and Abbreviations

English as a Foreign Language (EFL): English language learning environment in a country where the mother tongue is a language other than English

English as a Second Language (ESL): Exposure to target language in its natural setting (Stern, 1986: 338)

High-level Learner: Participants in this particular study with high vocabulary levels; those with an average score of 24 or above on the VLT by Schmitt, Schmitt, and Clapham (2001)

L1: Mother tongue

L2: Second or foreign language

Language Learning Context: is the “socio-culturo-political environment where learning takes place” (Gu, 2003a, p. 2). There are two language contexts for English language; namely, EFL and ESL.

Language Learning Strategy (LLS): (Often intentionally employed) “specific actions, behaviours, steps or techniques that are aimed to improve learners’ progress in the development of language skills” (Oxford, 1992, p. 18)

Vocabulary Learning Strategy (VLS): A subcategory of LLSs dealing with students’ vocabulary knowledge and the things learners do to make out “the meaning of new words, retain them in long-term memory, recall them when needed in comprehension, and use them in language production” (Fan, 2003, p. 223)

Vocabulary Learning Strategies Questionnaire (VLSQ): A 5-point Likert type of questionnaire with frequency of use and perceptions of usefulness sections devised by the researcher based on Schmitt’s (1997) taxonomy of VLSs

Vocabulary Levels Test (VLT): is a vocabulary test with “a form-recognition matching format, where the stem is the definition and the options are the target words” (Schmitt, 2010: 197). The test is composed of 5 word-levels; namely, 2k, 3k, 5k, 10k and Academic Word Level, each including words according to the assigned frequency level. There are ten clusters (as opposed to six in the original version) of words per frequency level and each cluster is composed of six target words to be matched with three definitions next to them, making three of the words distractors. Thus, participants “need to consider sixty words in each frequency level. In other words, “test takers are required to match 30 definitions to 30 out of 60 words” (Xing & Fulcher, 2007: 183) in each frequency level, which makes the total number of maximum possible correct answers 150. The version used for the purposes of

this particular study is Schmitt, Schmitt, and Clapham's (2001) version of the VLT (Version 1 of the two equal versions), which was first developed by Nation (1983; 1990) in early 80s.

1.6. Assumptions

- It is assumed that the participating students interpreted the items on the Vocabulary Learning Strategies Questionnaire (VLSQ) regarding their frequency of use of and their beliefs on the usefulness of VLSs correctly and answered them honestly.
- It is also assumed that the participants answered the Vocabulary Levels Test (VLT) sincerely and used their full potential to answer the questions of the test.

1.7. Limitations

There are five basic limitations to the present study.

- Firstly, this study is limited to the graduate students attending a variety of departments in 21 UK universities and 27 Turkish universities.
- The second limitation is regarding the relatively small number of the participants (ESL: 49, EFL: 79); therefore, the results may not be generalizable to other contexts.
- The third limitation is regarding the information concerning VLS use and perception of usefulness being limited to the data collected via the VLSQ.
- The fourth limitation is that the information on learners' vocabulary levels is limited to the data collected via the VLT (Schmitt, Schmitt, & Clapham, 2001).
- The final limitation is that the study is limited to the data collected in the UK and Turkey in Spring Term 2015.

CHAPTER II

CONCEPTUAL FRAMEWORK

The following sections will cover the conceptual framework of vocabulary learning strategies as well as the review of vocabulary learning strategy research. In this respect, first, various definitions of the terms of LLSs and VLSs, and a variety of categorisations of these strategies will be presented in this chapter. Related studies will also be mentioned in the course of the chapter. In addition, a separate section on the review of the literature regarding the relationship between VLSs and achievement will be provided.

The definition and categorisation of Language Learning Strategies (LLSs) and Vocabulary Learning Strategies (VLSs) are important in understanding the focus of the study. That's why the conceptual framework of the study will constitute the definition and categorisation of LLSs and VLSs as well as the factors affecting strategy use.

In view of VLSs being a subcategory of LLSs, it will be useful to get an insight into what LLSs are. As Schmitt (1997, p. 200) acknowledges, "if one tends to address VLSs, its relation with LLSs should not be neglected".

2.1. Language Learning Strategies

From 70s on, the teacher-based approach to learning has given its way to a more learner-based one, which led to an inevitable increase in the research dedicated to find insights about the use and impact of LLSs (Faerch & Kasper, 1980; Lan & Oxford, 2003; O'Malley & Chamot, 1990; Oxford, 1986; Schmitt, 1997; Wenden & Rubin, 1987). With the increase in the trend of a learner-centred approach to learning and teaching, it has been accepted that each learner is unique with his own needs and learning styles and strategies, which in turn led to a very important role being allotted to students' use of LLSs.

The person who used the term of 'Language Learning Strategies' for the first time in the sense it is used today is claimed to be Rubin (1987) by many researchers in the field (Grenfell & Macaro, 2007; Stern, 1992). Since its creation, however, the term 'LLSs' has been defined by many researchers, yet with a lack of consensus (Dornyei, 2005; Ellis, 1994; McDonough, 1995; Segler, Pain, & Sorace, 2002; Wenden, 1991; White, 2008). Yet, there are some recurrent terms and phrases in them despite the lack of a consensus on one single definition of LLSs.

First of all, LLSs can refer to a number of terms such as *thoughts, actions, processes, procedures, routines, plans, operations, behaviours, attempts, approaches* and *techniques*

(Chamot, 1987; O'Malley & Chamot, 1990; Richards & Platt, 1992; Rubin, 1987; Weinstein & Mayer, 1986; Wenden, 1987a). Strategies can be employed consciously or unconsciously. However, most researchers agree that this is more of a *conscious* (Chamot, 2004; Cohen, 1998), *deliberate* (Chamot, 1987) and *intentional* (Richards & Platt, 1992) effort on part of the learner rather than an unconscious one. However, some researchers such as Purpura (1999) and Ridley (1997) claim that it can be both.

Secondly, almost all the scholars who attempted to define LLSs mention that learners employ these strategies *to achieve a learning goal*. Some scholars defined the goal of using LLSs as to *comprehend, learn and retain* (O'Malley & Chamot, 1990), *understand, learn and remember* (Richards & Platt, 1992) and to “obtain, retrieve, store and use” (Rubin, 1987 in Wenden & Rubin, 1987, p. 17) information. Oxford (1990, p. 8) provided a more explicit definition of this goal as “to make learning easier, faster, more enjoyable, more self-directed, more effective and more transferable to new situations”. Below on Table 1 are the various purposes learners use LLSs for as proposed by a number of scholars in the field.

Table 1

The purposes of LLS use

According to...	LLSs are used in order to...
Tarone (1981: 288)	“develop linguistic and sociolinguistic competence”
Weinstein and Mayer (1986, p. 315)	“influence the learner’s encoding process”
Chamot (1987, p. 71)	“facilitate learning and recall”
Rubin (1987 in Wenden and Rubin, 1987, p. 15)	“facilitate the obtaining, retrieval, storage and use of information”
Wenden (1987a, p. 6)	“learn and regulate the learning”
Oxford and Crookall (1989, p. 411)	“learn how to learn, solve problems, or learn skills”
O'Malley and Chamot (1990, p. 43)	“help them comprehend, learn, or retain new information”
Richards and Platt (1992, p. 209)	“better help them understand, learn, or remember new information”
Ellis (1994, p. 529)	“acquire and use the language”
Purpura (1999, p. 8)	“learn, use, and test language”
Cohen (1998, p. 4)	“store, recall and apply information”
Chamot (2004, p. 14)	“achieve a learning goal”

Even a quick glance at the various definitions and goals in the field of LLSs reveal that the concept of ‘language learning strategy’ remains “fuzzy” as Ellis (1994, p. 529) suggests and the field of language learning strategy continues to be characterized by “confusion” and “no consensus” (O'Malley, Chamot, Stewner-Manzanares, Küpper, & Russo, 1985, p. 22).

But what is the reason behind this much effort on LLS studies? The reason behind it is that learning strategies are of great importance in second language learning and teaching because of three main reasons. The first reason is that, by investigating the strategies employed by second language learners during the language learning process, we get to know the cognitive, metacognitive, social, and affective processes involved in language learning. The second reason is that less successful language learners can be instructed new strategies, thus helping them improve their language (Grenfell & Harris, 2002). Last, LLSs can enable students to transform into more independent, autonomous, lifelong language learners (Allwright, 1990; Little, 1991).

2.1.1. Review of prominent LLS classifications

Many researchers “classified strategies into various categories according to the sort of information-processing” which the learner is required to do (Shapira & Hertz-Lazarowitz, 2005, p. 575). However, as Oxford (1990, p. 17) suggests, there is “no complete agreement on exactly what strategies are, how many strategies exist, how they should be defined, demarcated, and categorised... (and thus,) classification conflicts are inevitable”. The most prominent of these classifications are as follows:

The earliest classification of LLSs was made by Naiman, Frohlich, Stern, and Todesco (1978 as cited from Vlckova, Berger, & Völkle, 2013, p. 96), who categorised these strategies into five main groups as; “active task approach, realisation of language as system, realisation of language as a means of communication, management of affective demands, and monitoring of target language performance”. On the other hand, Dansereau (1985 as cited from Liu, 2010, p. 100), also one of the earliest researchers to classify LLSs, was the person who lit the fire of research into strategies by making a simplistic, yet effective distinction between “primary” and “support” strategies, which later formed the basis of Oxford’s (1990, p. 17) classification. “He further subdivided these two groups of strategies according to language tasks” such as reading, writing, vocabulary learning, etc. (Vlckova, Berger, & Völkle, 2013, p. 96).

For the first time in literature, a distinction between cognitive, metacognitive, and socio-affective LLSs was made by O’Malley et al. (1985). According to O’Malley et al. (1985, p. 27), cognitive strategies, which as Brown (2007, p. 134) suggests, manipulate the learning material more directly and are more limited to specific learning tasks, are categorised into sixteen types of strategies as; repetition, resourcing, directed physical response, translation, grouping, note-taking, deduction, recombination, imagery, auditory

representation, keyword, contextualization, elaboration, transfer, inferencing, and questions for clarification. Metacognitive strategies, similarly, are further categorised into nine strategy groups as; advance organizers, directed orientation, selective attention, self-management, advance preparation, self-monitoring, delayed production, self-evaluation, and self-reinforcement. Socio-affective strategies, on the other hand, are mainly cooperation strategies. Below on Figure 1 is O'Malley et al.'s (1985, p. 27) categorisation of LLSs.

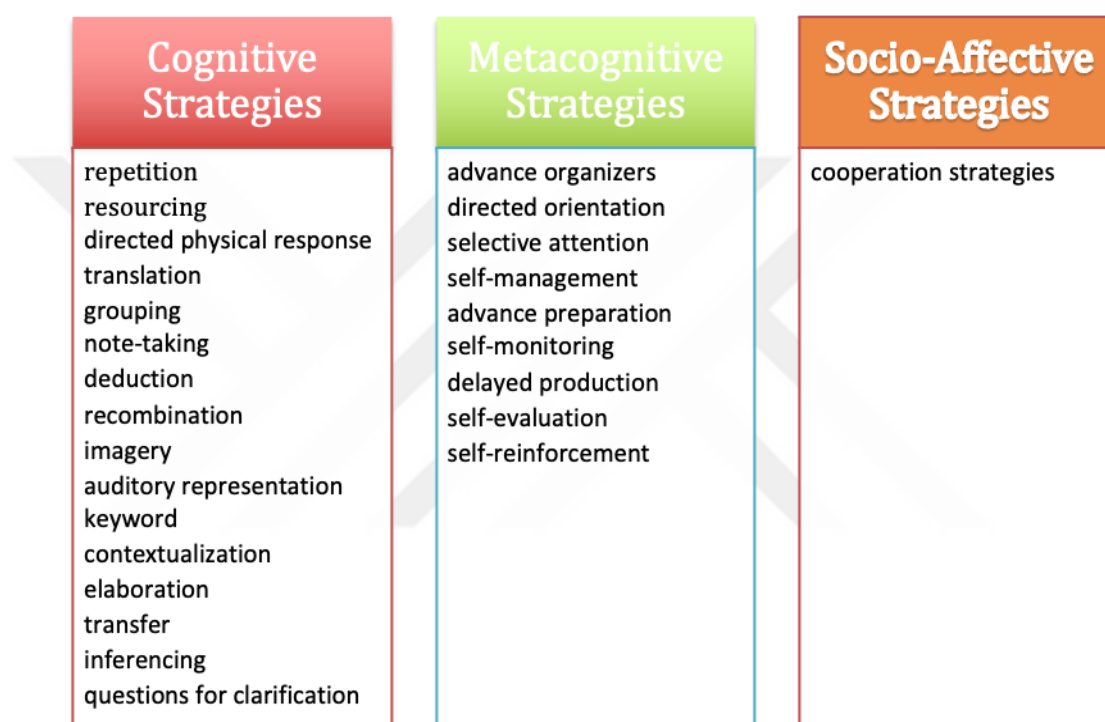


Figure 1. O'Malley et al.'s (1985, p. 27) classification of LLSs

This last category of social and affective strategies joint together under one title changes into two separate categories in later categorisations by Rubin (1987), Oxford (1990), Stern (1992), and Bimmel and Rampillon (2000).

Rubin (in Wenden & Rubin, 1987: 23-27), one of the pioneers in the field of LLSs, made a distinction between “strategies contributing directly and indirectly to learning”, just like the one made by Oxford (1990) a few years later. According to Rubin's (1987) classification, while *learning strategies* contribute directly, *communication* and *social strategies* have more of an indirect contribution to learning. Learning strategies were labelled as cognitive and metacognitive learning strategies, with six subcategories for the former one; namely, (1) clarification/verification (2) guessing/inductive inferencing (3) deductive

reasoning (4) practice (e.g. repetition, rehearsal, experimentation, application of rules, imitation, attention to detail) (5) memorization (6) monitoring. Metacognitive strategies, on the other hand, consist of the strategies of planning, prioritizing, setting goals, and self-management. Less directly related to language learning, communication strategies focus on the process of participating in a conversation and getting oneself understood as the speaker, or clarifying one's original intention. Social strategies, which also contribute indirectly to language learning, are described by Rubin (1987 as cited from Liu, 2010, p. 101) as "activities providing learners with opportunities to be exposed to and practice their knowledge". These strategies are composed of questions to others including fellow students, teachers and native speakers, initiating conversations, and listening to L2 media. See Figure 2 for Rubin's (in Wenden & Rubin, 1987, p. 23-27) classification of LLSs.

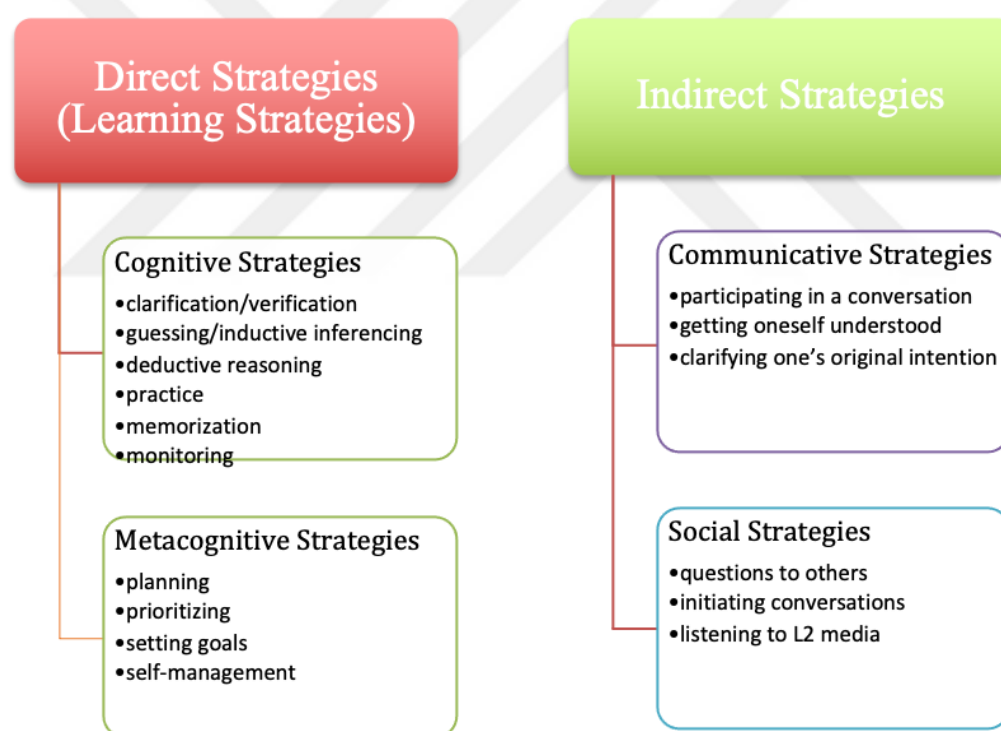


Figure 2. Rubin's (in Wenden & Rubin, 1987, p. 23-27) classification of LLSs

There are some problems concerning this categorisation of LLSs. For instance, the strategies used for communicating with others were not considered as 'learning strategies' by Rubin (in Wenden & Rubin, 1987). However, social strategies such as asking for

clarification and for repetition during communication are also regarded as learning strategies in today's understanding of LLSs (Cohen & Weaver, 2005; Oxford, 1990).

Among LLS classifications, Oxford's (1990) classification of LLSs is the most well-known and it is widely used in teaching practice and also research on language teaching. Among all these various classification theories of LLSs, Oxford's (1990) six-factor model of learning strategies "is the most consistent with learners' strategy use" (Hsiao & Oxford, 2002, p. 368). Ellis (1994, p. 539) views Oxford's classification of LLSs as "perhaps the most comprehensive classification of learning strategies to date". Oxford (1990, p. 9), who envisions the aim of language learning strategies as "being oriented towards the development of communicative competence", categorises LLSs into two main groups; namely, *direct* and *indirect* LLSs, with three further subdivisions each. See Figure 3 for details.

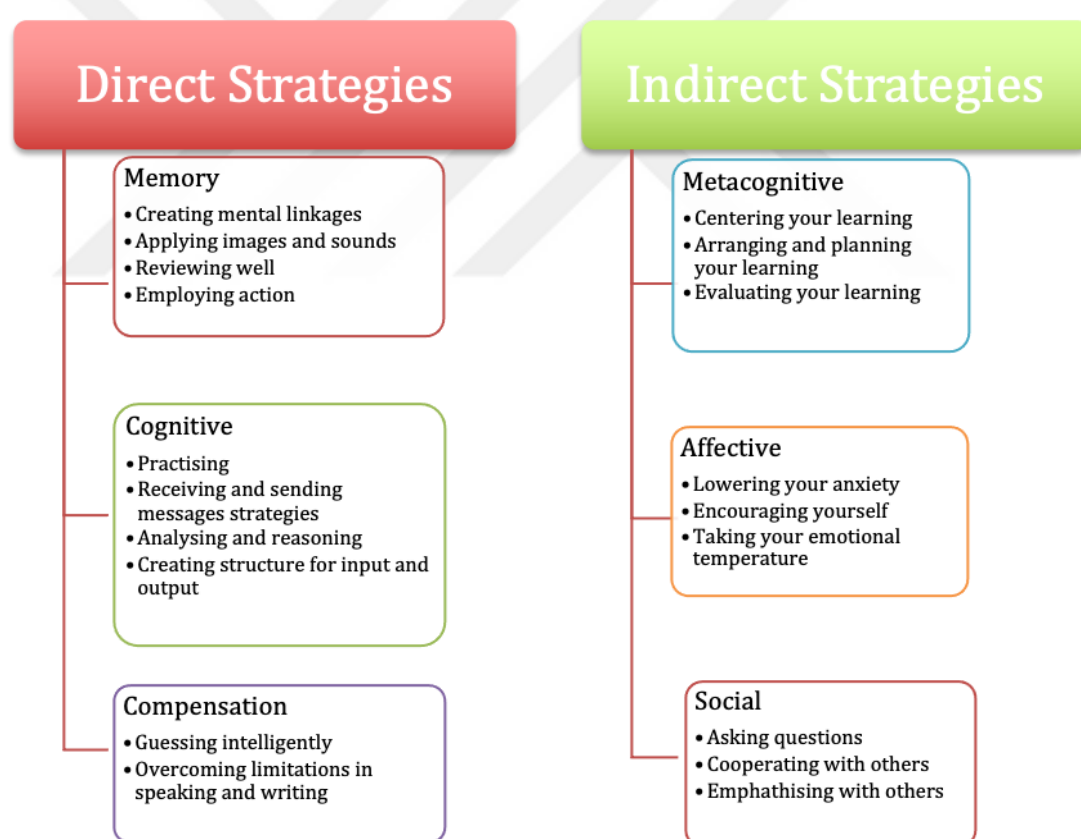


Figure 3. Oxford's (1990, p. 17) classification of LLSs

When compared to the other classification, Oxford's (1990) classification of LLSs, despite the evident inspiration from Rubin's (1987) especially in the labelling of categories, has changed the way LLSs are viewed. The idea that strategies are either primary or support

strategies was first proposed by Dansereau (1985), which was later reworded by Rubin (1987) as direct and indirect strategies. In Oxford's (1990) classification of LLSs, in addition to the use of this familiar dichotomy of direct and indirect strategies, metacognitive strategies were placed under the indirect strategies unlike Rubin's (1987) classification, in which meta-cognitive strategies were included under direct strategies. Also, O'Malley et al.'s (1985) socio-affective strategies were separated as social strategies and affective strategies, which both were placed under the indirect strategies category as well. Later on, Oxford (2003, p. 14) defined social strategies as "asking for clarification of a confusing point, asking questions to get verification, talking with a native-speaking conversation partner, asking for help in doing a language task, and exploring cultural and social norms". Most importantly, three components of direct strategies were labelled as memory, cognitive and compensation strategies, with further sub-categories of each. This categorisation system has since been used by many researchers as well as for practical purposes.

Similarly, like Oxford (1990), Bimmel and Rampillon (2000 as cited in Vlckova, Berger, & Völkle, 2013, p. 96) also categorized LLSs into two main groups; namely, *direct* and *indirect* strategies. While direct strategies consist of memory and language processing strategies, indirect strategies are composed of self-regulatory, affective, social, and language use strategies. than including self-regulation under metacognitive strategies, they preferred to present it as a separate as an independent category.

A comparison of Oxford's (1990) and Bimmel and Rampillon's (2000) LLS classifications yields some similarities. Besides the dichotomy of direct and indirect strategies, there is the sub-category of memory strategies under direct strategies, and the sub-category of affective strategies under indirect strategies in both categorisation systems. However, the comparison yields some differences as well. First, Oxford's (1990) cognitive strategies were named as language processing strategies, and Oxford's (1990) metacognitive strategies were labelled as self-regulation strategies by Bimmel and Rampillon (2000 as cited in Vlckova, Berger, & Völkle, 2013, p. 96). Secondly, Bimmel and Rampillon's (2000) classification of LLSs lack the category of Oxford's (1990) compensation strategies.

Similarly, Stern (1992, p. 262-266) categorised LLSs into five main groups. These are management and planning, cognitive, communicative-experiential, interpersonal, and affective strategies. Management and planning strategies refer to setting a goal within one's reach and assessing one's own achievement in light of that goal. Cognitive strategies are related to the techniques learners use when they engage in their study and practice of the target language. The third group of strategies; namely, communicative-experiential

strategies, deal with avoiding message breakdown and conveying it adequately by using gesturing, paraphrasing, etc. The fourth category is interpersonal strategies, which refer to the ones learners use to overcome the social problems they encounter when learning a target language. Both the categories of communicative-experiential and interpersonal strategies are referred in some other classifications as communication strategies (Naiman et al., 1978 as cited from Vlckova, Berger, & Völkle, 2013) or social strategies (Bimmel and Rampillon, 2000; Oxford, 1990; Rubin 1987 in Wenden & Rubin, 1987). The last category of strategies are affective strategies, which involve creating favourable conditions and defeating the inevitable issues of negative affect.

Later, differently from the rest of the researchers categorising LLSs, Cohen and Weaver (2005, p. 33-36) made four categorizations according to goal, function, language skill, and language use. The originality of this categorisation lies in the four-fold grouping of strategies. All the other categorisation systems, apart from this particular one, analysed strategies by function, while Cohen and Weaver (2005) analysed them by goal, language skill, and language use, as well. See Figure 4 for details.

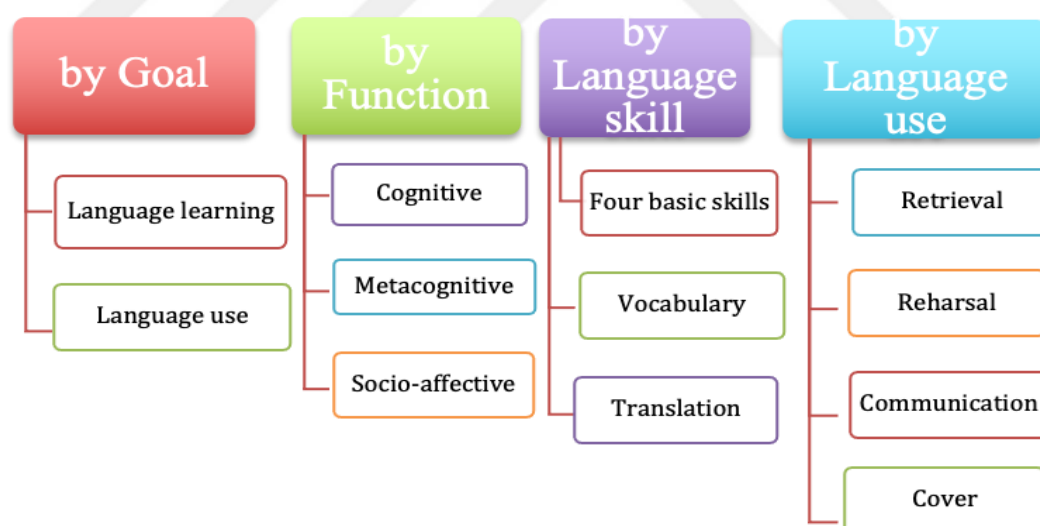


Figure 4. Cohen and Weaver's (2005, p. 33-36) classification of LLSs

In this classification, interestingly Cohen and Weaver (2005) added vocabulary and translation underneath the language skill section. However, in the ELT field vocabulary and grammar are traditionally regarded as language components or systems rather than language skills.

Among all the classification systems proposed to date, Oxford's (1990) classification of LLSs remains to be the most clear, easy to understand and practical one. Yet, with a consensus on a single classification system for LLSs being impossible, research in this area is apt to create many more in the upcoming years. Having acknowledged what LLSs are and how they are classified; the focus of the following part will be on the definitions of vocabulary learning strategies (VLSs) as part of the umbrella term of LLSs, and their classifications by a variety of scholars.

2.2. Vocabulary Learning Strategies

The unprecedented rate of globalisation, technological development and widespread use of the Internet in the last two decades have transformed communication, which, in turn, has brought about new responsibilities for the individual. The multi-cultural and multi-lingual construct of today's world has redetermined the communicational needs of the individual (Tuncer, Berkant, & Doğan, 2015, p. 261). In this respect, the requirement to speak a foreign language has become an indispensable part of today's world (Sarıçoban, 2012, p. 2643).

The English language sticks out, among other languages, with its overriding power in global economy, media, entertainment, academy, and many more areas (Guilherme, 2007, p. 72). And science has been one of the major fields the English language dominates (Crystal, 2003; Graddol, 1997), which makes English language learning a must for students as well as academics around the world. Thus, English has been the major foreign language taught around the world, especially in developing countries, enjoying a prestigious position, and Turkey is no exception to this (Karahan, 2007, p. 74). Thus, Turkish students are expected to acquire this “fundamental tool that unquestionably brings professional success” (Guilherme, 2007, p. 74).

Now that the ability to speak the English language is of great importance, language learners need to improve their knowledge in a variety of aspects of the English language. Vocabulary, which is regarded to be the element which connects all the four language skills – namely, speaking, listening, reading and writing - together, is widely accepted to have a crucial role in language learning in general. Vocabulary, just as Rubin and Thompson (1994, p. 79) state, is so crucial that without it “one cannot speak, understand, read or write a foreign language”.

Despite its importance, the actual teaching of vocabulary is also claimed to be impossible. Instead, it could “be presented, explained, included in all kinds of activities, and

expressed in all manner of associations (visual, auditory, kinaesthetic, tactile, olfactory if one wishes) since it is the individual who learns it” (Rivers 1983, p. 86). This actually is in line with today’s understanding of vocabulary learning. Yet, it is “not possible for students to learn all the vocabulary they need in the classroom” (Sokmen, 1997, p. 245). And this is where VLSs step in to empower students with a variety of ways to learn, store and retain vocabulary, which in turn assist learners to gain autonomy (Wang, 2016; White, 1995).

Considering the importance of VLSs, it would be useful to look into what these strategies are and how they are classified. Starting with what vocabulary is not could be of use. Vocabulary is much more than a list of individual words. Knowing a word entails learning a lot more than the word meaning, “with the word’s form, associations, collocations, and grammatical patterns among other things also needing to be acquired” (Brown, 2010, p. 254).

By definition, VLSs are “steps taken by the language learners to acquire new English words” (Asgari & Mustapha, 2011, p. 85). They are “specific techniques, actions and devices adopted by learners to ease and boost their vocabulary learning” (Rashed, 2018, p. 40). A more detailed definition of VLSs suggests that they are “the steps or actions taken by language learners to discover the meaning of unknown words, to store their meanings in the long-term memory, to recall and produce them when necessary, either orally or in a written form” (Catalan, 2003, p. 56).

Although a variety of definitions of VLSs could be made, “it would actually be a futile effort as they can be anything that affects learning, which is – in a broad sense - the process of obtaining information” (Schmitt, 1997, p. 203). In this respect, Nation (2001, p. 217), rather than defining VLSs, lists the four characteristics of a VLS. According to him, a strategy should (1) involve choice, that is, there are several strategies to choose from, and (2) be complex, that is, there are several steps to learn. Also, a strategy should (3) require knowledge and benefit from training, and lastly it should (4) increase the efficiency of vocabulary learning and vocabulary use.

All these definitions of VLSs provided above suggest that word knowledge is more of a multi-dimensional character than simply knowing the meaning, which in turn requires the use of a variety of strategies. Thus, getting a deeper insight into what knowing a word actually means could be of great use at this point.

Knowing a word is generally considered as a matter of knowing the word’s meaning. However, although knowledge of a word’s meaning is of great importance, knowing a word is actually much more than that. The knowledge of the word’s meaning

composes only part of the knowledge required to know a word. Schmitt (2000, p. 5) acknowledges that it is “not enough to know its meaning to master a word, (but that the individual should) learn its register, association, collocation, grammatical behaviour, written form, spoken form and fluency, (and that) all these properties are known as *word knowledge*”.

According to Nation (2001, p. 27), knowing a word is “three-fold”, with implications for form, meaning and use. Spoken and written form of the word, and word parts are to be considered under the category of *word-form*. Knowledge of *word-meaning* similarly has three subcategories, them being: forms and meaning, concepts and referents, and associations. Knowledge of *word-use* consists of the knowledge of its grammatical functions, of collocations, and of constraints on its use such as its register, its frequency of use, etc. Nation’s (2001) list of the components of word knowledge adds up to, each specified both for receptive and productive knowledge, and thus giving a total of eighteen different subcomponents of word knowledge under three main categories. See Figure 5 for details.

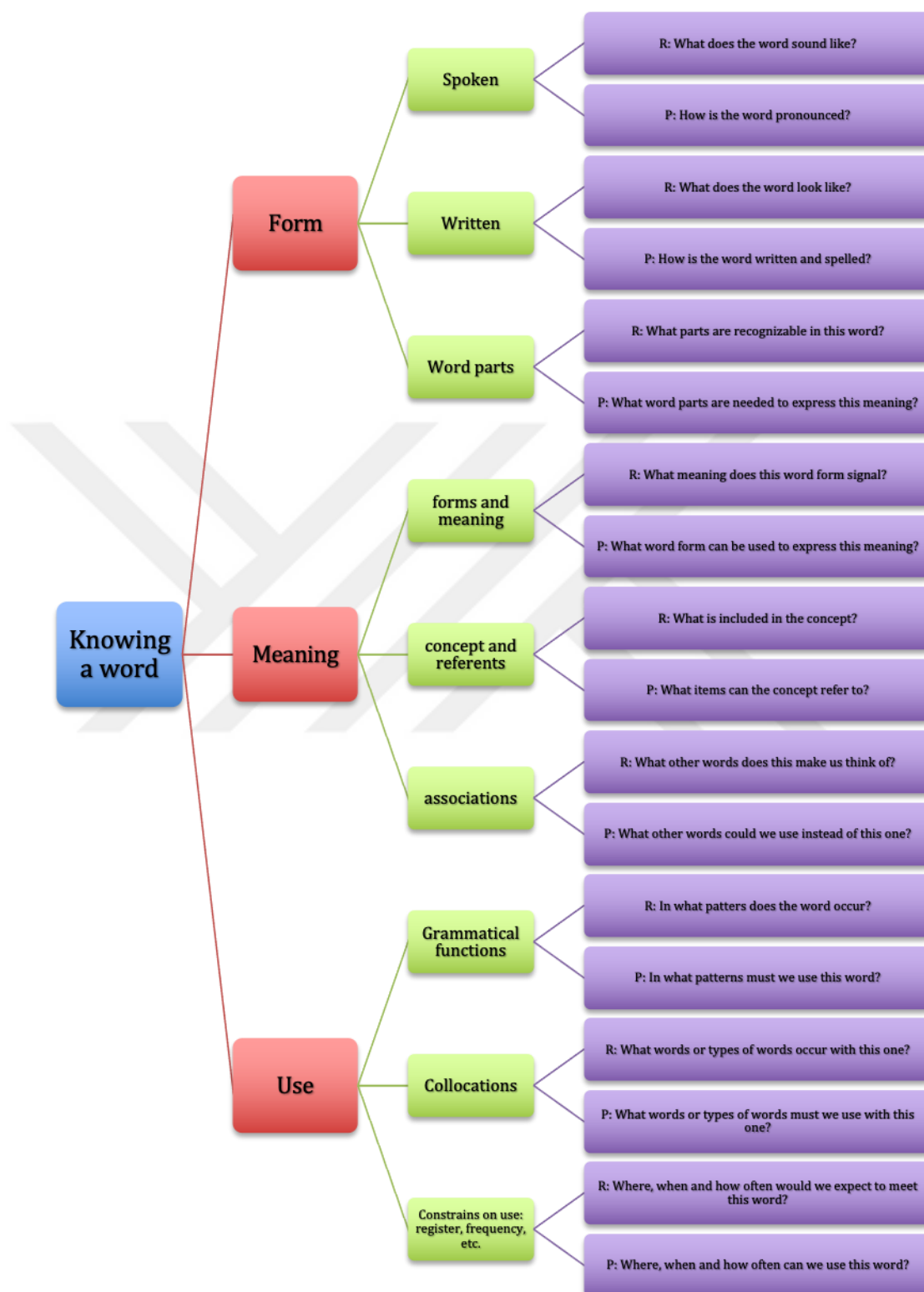


Figure 5. Nation's (2001, p. 27) list of components of word knowledge

It is clear from the list he created that, according to Nation (2001), knowledge of a vocabulary item is not something that can be regarded as bipolar; it is not that you know or not know a word; it is more a spectrum, where what matters is to what extent you know it, or in other words; how much you know about it.

Another point regarding learning a word is that it is a process rather than something one can do in the blink of an eye. Nation (1990, p. 41) claims that “5-16 exposures” are necessary in order to learn a word from context. This starts with the motivation of the learner to learn. However, vocabulary learning does not come to an end with learning of words in a cumulative way one after another. It is rather an on-going process with different aspects of a word (such as a variety of meanings, past participle form, plural form, adjective or adverb version, etc.) learnt with time intervals, which requires going back to the knowledge (revisiting a vocabulary item in your memory) and revising it with the new information added to it each time.

Still another important point is that, classifications deal with vocabulary *learning* strategies, which pre-requisites the learning process to happen successfully. However, sometimes learning does not take place for some reason. When this happens, learners who notice that some of the strategies they use to acquire a vocabulary item do not lead them to success revise their strategies and eliminate the ones that they think do not work, and sometimes adopt new ones. In this way, learners continually update their attitudes towards particular VLSs, which results in a continuous update of their VLSs. In that sense, the present understanding of the term VLSs (together with its umbrella term LLSs) in the literature (Chamot, 2004; Cohen, 1998; Purpura, 1999) will need to be refreshed with a reference to their active, continuously changing nature.

An acceptance of the active nature of VLSs (requiring their users to constantly adapt them) has implications also for their evaluation. The constantly changing, evolving nature of VLSs means that an evaluation of use and thus frequency of use of particular strategies by learners are, in this case, valid only for that particular time and situation (just like motivation or attitudes), which might as well be regarded as a limitation of VLS questionnaires as they are used today.

2.2.1. Review of prominent VLS classifications

Although vocabulary is widely attributed a significant role, the actual teaching of it is also claimed to be impossible. Instead, it could “be presented, explained, included in all kinds of activities, and expressed in all manner of associations (visual, auditory, kinaesthetic,

tactile, olfactory if one wishes) but it is the individual who learns it” (Rivers 1983, p. 86). Yet, the observation that some learners somehow outperform the others receiving the same training triggered the research into the possible reasons behind this and boosted the interest in the strategies learners employ, with an attempt to pinpoint the reasons why some learners achieve better results than their peers under the same conditions (Pavicic Takac, 2008, p. 58).

The interest in the vocabulary strategies learners employ motivated researchers to create a comprehensive list of them. However, creating a list would not be satisfying enough to explain the relationship among a variety of individual VLSs, which in turn led to the creation of a number of VLS categorisations (or taxonomies as they are commonly referred in the literature) by a number of prominent researchers in the field. The need to classify VLSs seems to derive from determining their types and relation of each type with the others. So, researchers attempted to name them and suggest their theories about how they cluster. Regarding his motivation to create a VLS classification, Schmitt (1997) points out that VLS studies tend to deal with individual/micro or small numbers of strategies, with only a handful of studies looking at the group as a whole. And thus, the current state of the field is characterized by the lack of a comprehensive list or taxonomy of lexically-focused strategies.

In this respect, just like for LLSs, a number of classifications for VLSs have been proposed. Some of the most influential *classifications / groupings*, or –in other words- *taxonomies* of VLSs made it possible to conceptualize these strategies, and thus, to generate VLS inventories. These VLS classifications have helped us better understand the relationship among single strategies by grouping similar ones under certain strategy categories, and thus making it possible to draw conclusions on the use and learning / teaching of these strategies as well as providing a tool to compare (the frequency of use or the perceptions about the usefulness of) strategy categories of learners themselves (in terms of these variables). Thus, these VLS classifications have enabled researchers to utilize objective statistical techniques in the assessment of these strategies. Among these, Cohen (1987), Cook (2001), Gu and Johnson (1996), Lawson and Hogben (1996), Nation (2001), Sanaoui (1995), Schmitt (1997), Stoffer (1995) are well-known for the taxonomies they created. In addition to these prominent figures, there are researchers such as Akbari (2017), Winke and Abdul (2007), and Zhang and Li (2011) who have proposed their own taxonomies of VLSs. The creation of VLS taxonomies has made it possible for researchers to devise VLS inventories, and thus compare students in terms of their use of VLSs.

The earliest classification of VLSs seems to be the one made by Cohen (1987, p. 44), who categorised VLSs, which are used in order to “commit new vocabulary items into the memory”, into four main groups; namely, “rote repetition, structure, semantic strategies and the use of mnemonic device”. Although what each category refers to was explained, these four categories were not further divided into subcategories or particular strategy names were not provided under each of these four strategies, which makes the classification a simplistic one.

Another prominent study that investigated VLSs as a specialised subcategory of LLSs in general is the one carried out by Sanaoui (1995), where he used the diaries of adult learners of English and French as a source of information on VLSs use, and used several criteria in the analysis of the learner diaries, such as; the degree of engagement in independent study, the range of self-initiated learning activities, the ways learners record and revise vocabulary, and how they use vocabulary items in in-class and out-of-class situations. The analysis enabled the researcher to differentiate between two distinct approaches to vocabulary learning; namely, *structured* and *unstructured*. While the first group of learners kept systematic record of the vocabulary they learned and made vocabulary lists (thus, being characterised by their structured approach to vocabulary learning), the second group’s approach to vocabulary learning is less systematic, relying mainly on the course material. The researcher concluded that the learners adopting a systematic approach to vocabulary learning retained vocabulary better than those with an unstructured approach. This study suggests that enabling learners to gain control on processes for directing their own vocabulary learning (through the use of VLSs) is of great importance in vocabulary learning and teaching in a second language. See Figure 6 for features of structured and unstructured approach to vocabulary learning.

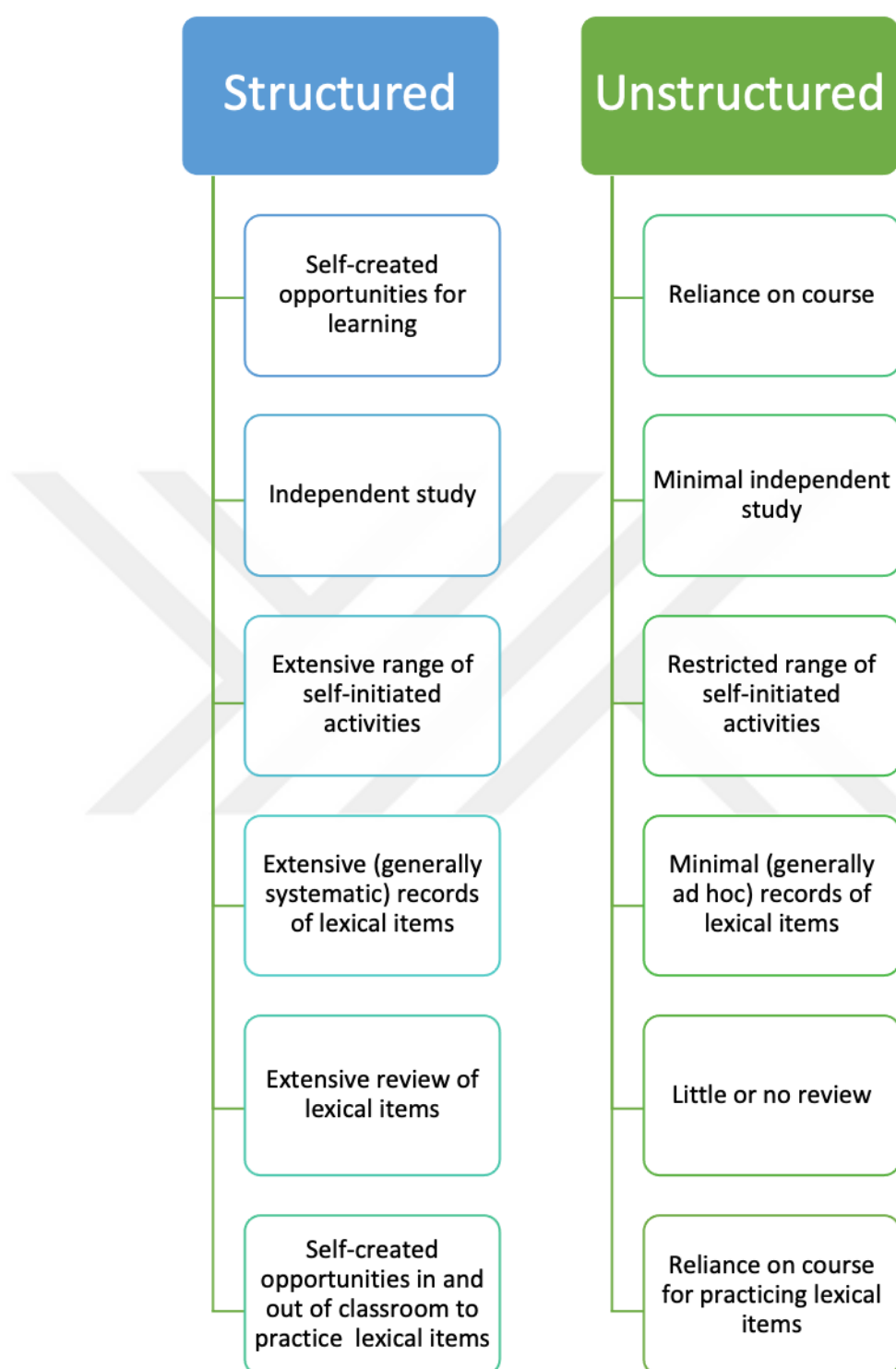


Figure 6. Characteristics of structured and unstructured approach to word learning (Sanaoui, 1995, p. 24)

In an attempt to determine VLSs, Stoffer (1995) developed Vocabulary Learning Strategy Inventory (VOLSI). She administered VOLSI and Strategy Inventory for Language Learning (SILL) (the well-known inventory for LLSs) to 707 students at the University of Alabama. She carried out a factor analysis of the 53 items on her vocabulary strategy inventory revealing nine vocabulary strategy categories: use of authentic language use, creative activities and physical action, as well as those used for self-motivation, to organize words, to create mental linkages, to overcome anxiety, memory strategies, and visual / auditory strategies. These three earlier attempts to create a VLS classification system were far from being comprehensive. Yet, they might have lit the fire of the attempts to classify VLSs.

In a more extensive research to classify VLSs, Gu and Johnson (1996) devised a 91-item vocabulary learning questionnaire and administered it to Chinese learners. These were listed under two different strategy categories as *cognitive* and *metacognitive* strategies. Metacognitive strategies consisted of selective attention and self-initiation strategies while cognitive strategies consisted of five strategy groups; namely, guessing, dictionary, note-taking, rehearsal and memory strategies. The results of the study revealed that the most frequently used strategies were the ones used by learners in order to regulate their learning; namely, guessing, dictionary work, and note taking as well as self-initiating and selective attention. The study also revealed, “despite the fact that there is a wide range of VLSs to choose from, learners only use a limited number” of VLSs (Ma, 2009, p. 161). See Figure 7 below for the details of this VLS classification.

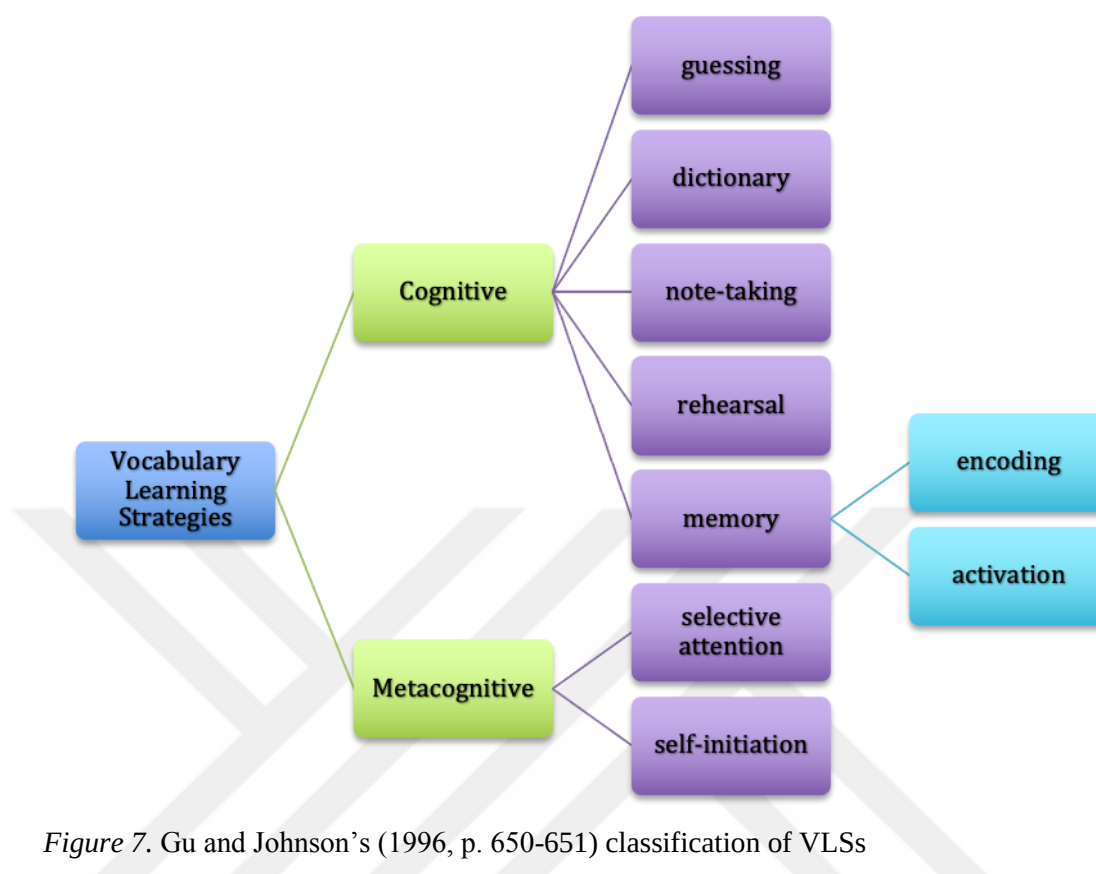


Figure 7. Gu and Johnson's (1996, p. 650-651) classification of VLSs

Gu and Johnson's (1996) classification of VLSs is a comprehensive one with items adding up to 108. Criticism was made in relation to surplus of items which could lead to unreliable results because of "the *fatigue factor*" (Nation, 2001, p. 227). As a result, Gu and Johnson's (1996) comprehensive classification of VLSs was later updated by Gu (2003a, p. 1-3) using a tetrahedral approach to the study of use of strategies. Four factors that affect vocabulary learning were claimed to be; person, task, context and learning strategies. He states that a person adopts certain strategies to solve the problem when s/he approaches a relatively challenging task. According to him, this problem-solving process is limited by the learning context where the person is tackling the problem. He suggests that language learning in general and vocabulary acquisition in particular are such problem-solving tasks at different levels of complexity, and that the strategies a learner employs and the effectiveness of these strategies depend very much on the characteristics of the learner him/herself (attitudes, motivation, prior knowledge), of the learning task at hand (type, complexity, difficulty, and generality), and of the learning environment (the learning culture, the richness of input and output opportunities). According to Gu (2003) some strategies are more person-

dependent while some are more task-dependent, and still some others are more context-dependent.

In the same year, having observed their own students' vocabulary learning process, Lawson and Hogben (1996) also came up with a classification of VLSs. They categorized VLSs into four main categories, each with its own sub-categories. See Figure 8 for Lawson and Hogben's (1996) classification of VLSs.

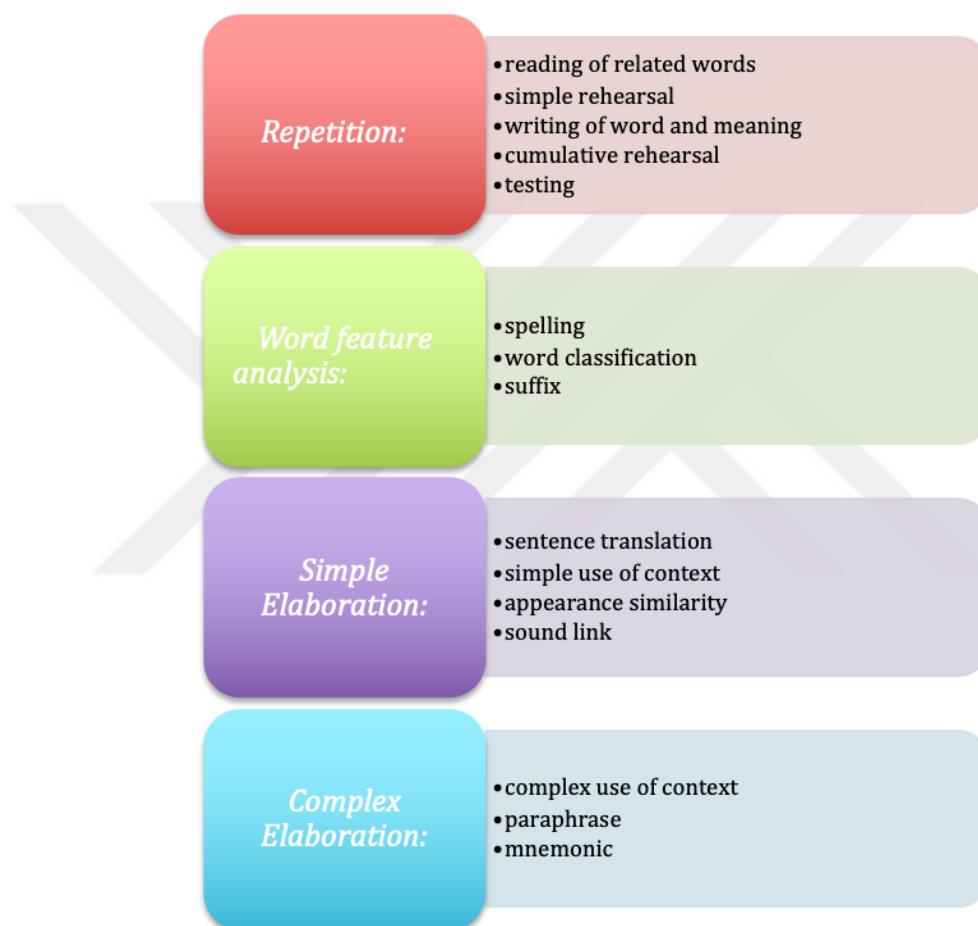


Figure 8. Lawson and Hogben's (1996, p. 118-119) classification of VLSs

Of these four main categories, the resemblances between the first two; namely, repetition and word feature analysis seem to be similar with Cohen's (1987, p. 44) rote repetition and structure categories. And two of Cohen's (1987) categories; namely, semantic strategies and mnemonics, can also be seen in Lawson and Hogben's (1996, p. 118-119) last two categories (simple and complex elaboration). The three classification systems proposed later on by Schmitt (1997), Cook (2001) and Nation (2001) all categorised VLSs in relation to vocabulary learning process.

Still another researcher who created his own classification of VLSs is Schmitt (1997, p. 205-206). In an earlier research, Schmitt and Schmitt (1993) had attempted to make a classification of VLSs by determining the strategies used by 600 Japanese students ranging from junior high school to adults. As an update of this study, Schmitt (1997) made a classification or – as it is more commonly referred to – a *taxonomy* of VLSs, and based it on Oxford's (1990) classification of LLSs. Since Oxford (1990) created the classification in order to describe LLSs as a whole, in the first step, Schmitt (1997) had to revise it so that it would act as a useful tool especially when categorizing VLSs. He adopted four categories, i.e. social, memory, cognitive, and metacognitive from Oxford's six LLSs (memory, cognitive, compensation, metacognitive, affective, and social) and added a new category, *determination*, in his classification.

Differently from Stoffer's (1995) classification, Schmitt's (1997) version of the VLS categorisation has two distinct aspects/dimensions rather than adopting a holistic approach to VLSs. The two major groups Schmitt (1997) categorises VLSs into are *discovery strategies* and *consolidation strategies*. *Discovery strategies* are defined by Schmitt (1997, p. 205-206) as “the strategies used to discover a new word's meaning” while *consolidation strategies* as “the strategies used by learners to consolidate a word once it has been encountered”. The former category is composed of determination and social strategies while the later one consists of social, memory, cognitive, and metacognitive strategies. The social strategies are included in both of the two categories as they can be used for both purposes.

Schmitt and Schmitt (1993) used a variety of sources for the compilation of strategy items. These sources were textbooks and reference books on vocabulary, the reports Japanese learners wrote about how they studied English vocabulary, and lastly, a number of teachers' addition to the list of vocabulary strategies.

Inspired by Cook and Mayer's (1983) and Nation's (1990) basic but helpful distinction between the activities that are beneficial for (a) the initial discovery of a word's meaning and (b) remembering that word once it has been introduced, Schmitt (1997) made the same distinction, with further sub-categories this time. He suggested that when learners encounter a word for the first time, they use their knowledge of the language, contextual clues, or reference materials to figure out the new meaning (determination strategies), or need somebody else's expertise (social strategies). Schmitt (1997) labeled these strategies for gaining initial information about a new word as *discovery strategies*.

In vocabulary learning, besides the fundamental task of learning the word *meaning*, there are a number of other things to learn about the word, some of these being; spelling,

pronunciation, word class, register, collocations, etc. In this respect, learners try to remember the word by using *consolidation* strategies, which can come from social, memory, cognitive and metacognitive categories (Schmitt, 1997). These VLS sub-categories can sometimes be difficult to distinguish. However, on the whole, *determination* strategies refer to the kinds of strategies the individual uses when faced with discovering a word's meaning without consulting another person's expertise. *Social* strategies fit into both of the two main categories as they can be used not only at the first encounter with the word but also later on when consolidating the meaning.

As it might be especially difficult to distinguish between *memory* and *cognitive strategies*, Schmitt (1997) included strategies related to repetition and use of mechanical means into the category of *memory strategies*, while including the strategies that require associating, linking with prior knowledge and using imagery into the category of *cognitive strategies*. While memory strategies are “mental manipulation of the information”, cognitive strategies refer to “organisation of mental information or transformation of it in a way that makes it easier to remember” (Belleza, 1981 as reported by Schmitt, 1997, p. 203). The last sub-category on Schmitt's (1997, p. 205-206) VLS taxonomy, *metacognitive strategies*, refer to the strategies that “involve a conscious overview of the learning process and making decisions about planning, monitoring, or evaluating the best ways to study”.

Schmitt's (1997) classification of VLSs, which has also been used for the purposes of this particular study, presents a total of 58 VLSs divided into five categories and grouped into two dimensions. See Figure 9 below for this comprehensive classification.

Strategies for the discovery of new word's meaning	
DET	Analyse part of speech
DET	Analyse affixes and roots
DET	Check for L1 cognate
DET	Analyse any available pictures or gestures
DET	Guess from textual context
DET	Bilingual dictionary
DET	Monolingual dictionary
DET	Word lists
DET	Flash cards
SOC	Ask teacher for an L1 translation
SOC	Ask teacher for paraphrase or synonym of new word
SOC	Ask teacher for a sentence including the new word
SOC	Ask classmates for meaning
SOC	Discover new meaning through group work activity

Strategies for consolidating a word once it has been encountered	
MEM	Study the spelling of a word
MEM	Study the sound of a word
MEM	Say new word aloud when studying
MEM	Image word form
MEM	Underline initial letter of the word
MEM	Configuration
MEM	Use the Keyword Method
MEM	Affixes and Roots (remembering)
MEM	Part of Speech (remembering)
MEM	Paraphrase the words meaning
MEM	Use cognates in study
MEM	Learn the words of an idiom together
MEM	Use Physical action when learning a word
MEM	Use semantic feature grids
COG	Verbal repetition
COG	Written Repetition
COG	Word Lists
COG	Flash Cards
COG	Take notes in class
COG	Use the vocabulary section in your textbook
COG	Listen to tape of word lists
COG	Put English labels on physical objects
COG	Keep a vocabulary notebook
MET	Use English-language media (songs, movies, newscasts, etc.)
MET	Testing oneself with word tests
MET	Use spaced word practice
MET	Skip or pass new word
MET	Continue to study word over time

Strategies for consolidating a word once it has been encountered	
SOC	Study and practice meaning in a group
SOC	Teacher checks students' word lists for accuracy
SOC	Interact with native speakers
MEM	Study word with a pictorial representation of its meaning
MEM	Image word's meaning
MEM	Connect word to a personal experience
MEM	Associate the word with its coordinates
MEM	Connect the word to its synonyms and antonyms
MEM	Use Semantic maps
MEM	Use 'scales' for gradable adjectives
MEM	Peg Method
MEM	Loci Method
MEM	Group words together to study them
MEM	Group words together spatially on a page
MEM	Use new word in sentences
MEM	Group words together within a storyline

Note: SOC= Social strategies, DET= Determination strategies, MEM= Memory strategies, COG= Cognitive strategies, MET= Metacognitive strategies.

Figure 9. Schmitt's (1997, p. 205-206) classification of VLSs

Another notable classification of VLSs is the one proposed by Cook (2001, p. 66-70), who categorised VLSs into two main categories; namely, *strategies for understanding the meaning of words* and *strategies for acquiring words*, each with several sub-categories as shown on Figure 10.



Figure 10. Cook's (2001, p. 66-70) classification of VLSs

The two main categories of VLSs as suggested by Cook (2001) seem highly similar to Schmitt's (1997) *strategies for the discovery of new words* and *for consolidation of words*. However, the further categories having the potential of referring to one or two particular strategies, this classification is also far from making a comprehensive list of the VLSs that are / can be used by language learners or researchers around the world.

Still another researcher attempting to make a classification of VLSs is Nation (2001). What makes Nation's (2001) categorisation different from the other categorisations of VLSs is that he did not base his classification on any research results but purely on theory. Nation's (2001, p. 218-222) classification of VLSs has been organized around three main categories; namely, "*planning, access to sources, and learning processes*". *Planning* refers to choosing what to focus on and when to focus on it. According to Nation (2001, p. 218-222), planning

one's strategies is of great importance since "different words and different aspects of words might best be learned with different strategies". Repetition of what has been learned is also highly important and should be well-planned. The second main category of Nation's (2001) classification of VLSs, *access to sources*, refers to the various ways one can gather information about words, some of which are analysing the word, using the context it is in, using a monolingual or bilingual dictionary, and benefiting from any parallelism between native and target languages in terms of a particular word (if there is any). Learning processes, on the other hand, are related to the establishing of knowledge. According to Nation (2001), learning a word is four-fold; it starts with noticing it. Then comes recording it in the memory. Retrieving is the remembrance of the word that has been stored in the memory. The last step is generating; that is, using the word productively. All these four steps should be existent for a word to be regarded as learnt.

This categorisation of VLSs by Nation (2001) is quite different from the others in that it is more like the steps of learning new words. His classification of VLSs is not as detailed as Schmitt's (1997). Yet, it is important and worth mentioning here as it is well-planned and can easily be used for practical purposes like strategy instruction.

Among the researchers who have more recently proposed VLS classifications are Marin (2006), Winke and Abbuhl (2007), and Zhang and Li (2011). However, the most well-known and widely used classification has been Schmitt's (1997) by far most probably because he based his taxonomy on a large-scale research he made, and also due to its detailed structure.

All in all, when all the VLS classifications provided above are considered, there are more commonalities than differences among them. To illustrate, Cohen's (1987) strategies used to *commit new vocabulary items into the memory* reminds of the strategies used for the *discovery of a new word's meaning* in Schmitt's (1997) taxonomy. Another similarity is between Hogben and Lawson's (1996) *word feature analysis* strategies and Nation's (2001) *access to sources* category of strategies involving analysing word parts and utilizing parallelism. Besides, categories of strategies like *memory strategies* (*mnemonics* in other words) take place in almost all of the classifications. Still another similarity is that Gu and Johnson's (1996) cognitive and metacognitive dichotomy, which was first used by O'Malley et al. (1985) for LLSs, finds its place in Schmitt's (1997) classification as two of the six strategy categories.

The reasons why Schmitt's (1997) categorisation of VLSs was chosen as the base for the Vocabulary Learning Strategies Questionnaire used in the present study can be

summarised with the fact that it was created specifically for VLSs rather than LLSs and that it is one of the most comprehensive lists of VLSs as well as being based on empirical study results. Schmitt's taxonomy of VLSs is viewed by Segler, Pain and Sorace (2002, p. 411) as "probably the most extensive" as compared to other classification schemes, and acknowledged to have "the advantage of being organised around an established scheme of LLSs". Yet, it seems like, with a lack of a consensus on one single categorisation scheme, the literature is bound to yield many more VLS categorisations in the upcoming years.

2.3. Variables Affecting Strategy Use

In addition to the classifications of LLSs and VLSs suggested by a number of prominent figures in the field of language learning, another issue about strategies is the factors affecting strategy use.

Oxford (2003, p. 15) listed 9 factors affecting strategy use; namely, "motivation, gender, age, cultural background, brain hemisphere dominance, career orientation, academic major, beliefs, and the nature of the L2 task". Ellis (1994), on the other hand, grouped factors affecting VLS use in a more detailed way. Ellis (1994, p. 541) first categorises factors that affect VLS use into three as; "individual learner differences, social and situational factors, and learners' learning outcomes". Individual learner differences consist of beliefs, attitudes, motivation and learning experience. The second category, social and situational factors are further categorised into five groups as; field of study, course type, class level, gender and learning environment. The third and last category consists of language achievement, language proficiency, and vocabulary knowledge. See Figure 11.

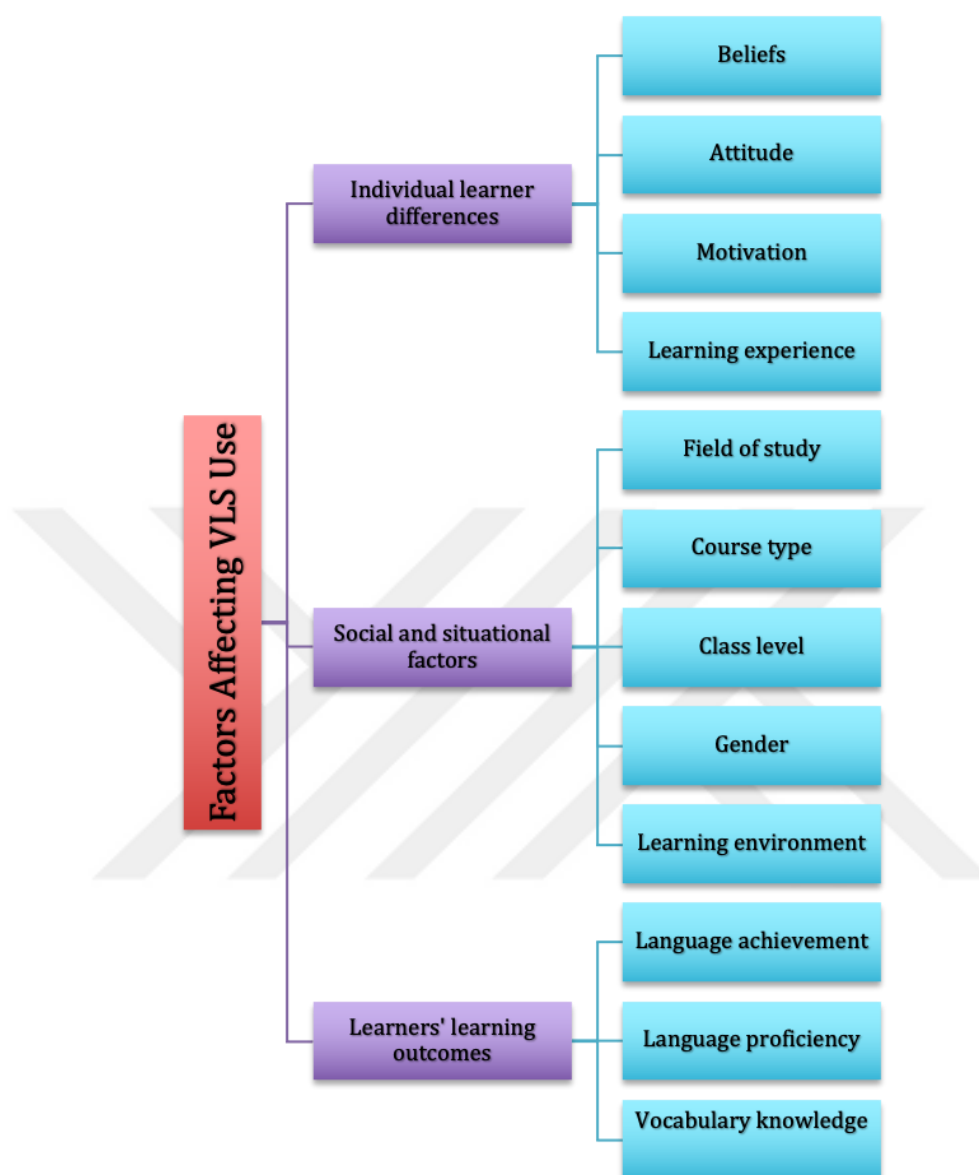


Figure 11. Factors affecting VLS use (Ellis, 1994, p. 541)

Gu (2003a, p. 16), on the other hand, emphasises much more “the inherent relationship between strategies and individual difference factors such as motivation, self-efficacy, gender, learning background, and learning styles”. Chamot and Rubin (1994, p. 774), adding many more factors to variables that affect strategy use, argue that whether a particular strategy employed by the learner will be effective or not depends on a number of factors “including proficiency level, task, text, language modality, background knowledge, context of learning, target language, and learner characteristics”.

With the rationale that strategy instruction should be geared towards learners' individual or group needs (Field, 2000; Grenfell & Harris, 2002; Takeuchi, Griffiths, & Coyle, 2007), the variables affecting strategy use and the direction and size of the effect have been investigated by a number of studies in the literature.

Among the factors affecting strategy use that have been the focus of a number of studies in the related literature are *gender* (Ahour & Abdi, 2015; Boyle, 1987; Catalan, 2003; Ehrman & Oxford, 1989; Gu, 2002; Han, 2014; Ping, 2002; Oxford, 1993; Oxford, 1994; Green & Oxford, 1995; Oxford, Lavine, Hollaway, Felkins, & Saleh, 1996; Oxford & Nyikos, 1989; Rua, 2006; Young & Oxford, 1997; Zhou & Intaraprasert, 2014), *academic major (discipline, academic/career orientation, field of study)* (Boonkongsean, 2012; Gu, 2002; Peacock & Ho, 2003; Rao & Liu, 2011), *age* (Griffiths, 2003; Peacock & Ho, 2003; Takeuchi, Griffiths, & Coyle, 2007; Victori & Tragant, 2003), *achievement (proficiency)* (Mullins, 1992; Nisbet, Tindall, & Arroyo, 2005; Park, 1997, 2010), *personality type* (Brown, 2007; Dufeu, 1994; Sadeghy & Mansouri, 2014; Wakamoto, 2000; Xie & Zhang, 2015; Zhou & Intaraprasert, 2014), *motivation and attitudes* (Kormos & Csizér, 2014; Ma & Oxford, 2014; Mochizuki, 1999; Wharton, 2000), *aptitude* (Saville-Troike, 2006; Skehan, 1989), *learning styles* (Brown, 2007; Cornett, 1983; Nelson, 1995; Oxford, 2003), *language learning environment (context)* (Karbalaie 2010a, 2010b), and many others.

In this respect, the factors whose relationship with VLSs will be investigated in the present study are language learning context, gender, and academic major.

2.3.1. Language learning context

As already mentioned, what is investigated in this particular study is VLS use by English language learners with the same nationality (Turkish) in two different language learning contexts; namely, ESL and EFL. To clarify the terms as they have been used in the present study, some explanation has been provided below. Gu (2003a, p. 2) suggests that “learning context refers to the learning environment, (and that) it is the socio-culturo-political environment where learning takes place”. According to him, there are a number of components of the learning context, such as “the teachers, the peers, the classroom climate or ethos, the family support, the social, cultural tradition of learning, the curriculum, and the availability of input and output opportunities” (Gu, 2003a, p. 2).

The term *context*, however, is used in literature to refer to a number of different things, one being the textual context. To eliminate this confusion, the term as it is used in this study is further explained:

Learning context is different from language context, which refers to the textual, or discursal place in which a particular word or structure can be found. Learning contexts constrain the ways learners approach learning tasks. A learning strategy that is valued in one learning context may well be deemed inappropriate in another context (Gu, 2003a, p. 2).

There are two different language contexts: ESL and EFL. Of these two, English as a Second Language (ESL) refers to language learning environments where the target language (English) is the language of the country and where the learners are immigrants or visitors from a variety of countries and with different backgrounds. In such environments, the common language is generally the target language, which requires the use of it more frequently. Also, outside the classroom environment, the learners need to use English for practical purposes and have ample opportunity to actually use it. So, the amount of input and output is a lot. English as a Foreign Language (EFL), on the other hand, refers to English language learning / teaching practices in a country where the native language is not English. Thus, language studies are generally confined to classroom activities with no (or little) practical needs to use English outside the class. The learners in an EFL context come from similar backgrounds and speak the same native language (with - of course - few exceptions).

The aforementioned differences between the two contexts are bound to bear some implications for VLS use, as well. As Gu (2003a, p. 17) states, “the availability and richness of input/output opportunities should also determine the strategies learners decide to use”. According to Rubin, Chamot, Harris, and Anderson (2007, p. 29), “language learners in both second and foreign language contexts can benefit from using learning strategies, but they may need different strategies for achieving their learning goals”. In this respect, Gu (2003a, p. 17) points out to the need for future research to focus on “different aspects of learning context as they relate to learners, tasks, and VLSs”. This particular study aims to help fill this gap in the literature by investigating the VLSs used by language learners in each context.

A good language learner is defined by Nunan as “one who can make effective choices in terms of learning tasks and strategies (1999: 193). However, the strategies learners need to employ in ESL and EFL contexts are suggested to be different from each other (Crookes, Davis, & LoCastro, 1994; Gu, 1996, 2003a; Riley & Harsh, 1999). Most studies focus on VLS use in either ESL or EFL contexts while a few studies provide a comparison of the strategies used in these two contexts. Some of these studies will be presented below. Although the strategies learners need to employ in ESL and EFL contexts are suggested to be different from each other (Crookes, Davis, & LoCastro, 1994; Gu, 1996, 2003a; Riley &

Harsh, 1999), there is only a handful of research focusing on the differences in strategy use between these two learning contexts.

The most prominent among these few studies is probably Riley and Harsh's (1999), which investigates learner awareness and use of LLSs in both EFL (learners of English language in Japan) and ESL (Japanese learners of English language in the U.S.) contexts. Data concerning strategy use and perception of strategy usefulness were collected both quantitatively and qualitatively (through guided journals) from both groups (with a total number of 82 participants). The results revealed that while ESL and EFL groups were found to be significantly different in strategy use in favour of the ESL group, no significant difference was observed in perceptions of usefulness. Within the scope of strategy use and language learning context relationship (in higher education), this piece of research acted as the first cobble to pave the way to understanding differences between learning contexts.

Another important, yet non-empirical work is Nayar's (1997). In this work, Nayar examined the origin and current meaning of the acronyms, ESL and EFL, evaluated their current credibility as well as distinguishing three contexts commonly referred to as ESL. As the work helps clarify the terms – which are in some cases wrongly used - from a broad aspect, it can be regarded as a prominent work in the field.

In an attempt to find an answer to the question whether vocabulary strategy use depends on the learning environment (or 'context' as in this particular research) Kojic- Sabo and Lightbown (1999) carried out a piece of research with 47 ESL, and 43 EFL learners. The results revealed that there was a significant difference between the two groups in terms of learner independence variable, which included strategies such as practising and using new vocabulary in out-of-class contexts, and which were preferred in the ESL environment. Learners in the EFL context, on the other hand, used the (traditional) strategies of repetition more frequently. Both groups used dictionary strategies often, which shows the importance of this strategy in vocabulary learning. The study also confirmed a correlation between frequency of strategy use and learning achievement, which prompts the importance of strategy use.

Among the other studies, which are not directly related to vocabulary learning strategies in two language contexts, some were found to be useful to be presented in this section of the present study. Anderson (2004), for example, investigated the differences in metacognitive reading strategy use between ESL and EFL contexts. To this end, he collected data from 396 participants in Costa Rica and the U.S. No difference in the use of reading strategies (except for more frequent use of problem-solving strategies in the EFL context

over the ESL context) emerged between the two contexts, which – to the researcher – could be interpreted as the difference between the ESL and EFL contexts.

Another researcher who conducted cross-contextual research, Karbalaeei (2010a, 2010b), focussed his studies on the use of metacognitive reading strategies in ESL and EFL contexts. He collected data from 190 undergraduate students (96 Iranian EFLs and 93 Indian ESLs). Both learner groups displayed similar patterns of strategy awareness with Indians being more aware and employing more metacognitive reading strategies. This piece of research, however, bears in the mind of the reader the question whether any possible differences found between ‘Iranian’ EFLs and ‘Indian’ ESLs might actually stem from the cultural differences between the two ethnic groups, which could be criticism for the researcher.

With the rationale that the amount of input and opportunities to actually use the language (output) differ drastically between ESL and EFL contexts, Fatemipour (2013) compared these two contexts in terms of (peripheral) vocabulary learning. The researcher collected data on the amount of off-campus learning Indian and Iranian university students are exposed to in their daily routines in the two contexts, and concluded significant difference in peripheral vocabulary learning between the two contexts. The researcher also made some suggestions on the ways the environment for the EFL university students could be enriched, which could actually be applied to vocabulary learning/teaching practices in the EFL contexts.

In another piece of research, Serrano et al. (2011) examined English written and oral performance (in terms of fluency, syntactic and lexical complexity, and accuracy) of three groups of Spanish-speaking undergraduates following their exposure to English language in three different contexts; in an ESL setting in the UK, an intensive, and a semi-intensive English language course in Spain (EFL). After an equivalent time, the results revealed similar written and oral performance of ESL and intensive course students while significantly poorer performance of semi-intensive course students in the EFL setting. This shows that the lack of input in the EFL context as compared to the ESL could be compensated (to a degree) through intensive study of the language.

Though less related to the present study, Baker Smemoe and Haslam (2013) experimentally investigated whether learning context (ESL versus EFL) affected the use of pronunciation strategies and pronunciation achievement. They carried out a study with 60 participants and - differently from the other studies proving context to be a determinant

factor in strategy use (Gu, 2003a; Rubin, Chamot, Harris, & Anderson, 2007) - concluded that learning context plays a limited role in strategy use.

On the whole, the studies above mostly show that language learning context plays a role in the VLSs learners employ. Thus, the VLSs learners employ in different contexts; namely, ESL and EFL, will be different from one another. In this respect, via the present study, which aims to explore the VLSs used by Turkish graduate students, the researcher aims to take all these attempts into exploring VLS use of learners a step further by providing a comparison of the VLSs used in the EFL and ESL contexts in terms of the VLSs used by learners with a similar background; and thus, to give an account of the role of context in the use of VLSs.

The reason why the present study set out to make a comparison of the two contexts; namely, ESL and EFL, is the general belief that language learning is more effective in the ESL context when compared to the EFL context. If this is the case, are the students in the ESL context using any different VLSs than their counterparts in the EFL context? If so, what different VLSs are used by the learners with a high level of vocabulary in the ESL setting? Can these strategies be integrated into the EFL setting to foster vocabulary learning? These are the questions the present study aims to answer.

2.3.2. Gender

Regarding the relationship between strategy use and gender, Oxford (1996, p. 247) states that for "... many cultures around the world, strategy use often differs by gender – but not always." Although gender as a factor which potentially affects strategy use has received a good amount of interest in the literature, studies on this factor have yielded controversial results. While some (Catalan, 2003; Kaylani, 1996; Mochizuki, 1999) finding gender as a significantly important factor in strategy use, some others (Abu Shmais, 2003; Ahour & Abdi, 2015; Sung, 2011; Tsai & Chang, 2009) found no significant relationship between gender and strategy use. Also, studies that found gender to be a determinant factor in strategy use yielded controversial results; some (Ehrman & Oxford, 1989; Green & Oxford, 1995) concluding female predominance over males while some others (Tercanlioglu, 2004; Wharton, 2000) concluded vice versa (male predominance over females).

In perhaps the most widely known study on the topic of gender as a factor affecting VLS use, "Sex Differences in L2 Vocabulary Learning Strategies", Catalan (2003, p. 64) conducts her study on 581 Spanish-speaking students learning Basque and English as second language. The study results reveal that females differ significantly from males in the larger

number of and more varied strategies they use also more frequently as compared to their male counterparts. She recorded more frequent use of formal rule strategies, input elicitation strategies, rehearsal strategies and planning strategies by females while of image vocabulary strategies by males. Catalan (2003, p. 56-57) also reports more active use of social strategies by females and of translation strategies by males while noting that strategy use might also be associated with “other individual factors such as types of memory, learning styles, motivation or even culture” focusing on the need for further research.

In another study, Oxford, Lavine, Hollaway, Felkins, and Saleh (1996) concludes that females are significantly more willing than males to try out new strategies, which is in line with the findings of a few studies conducted by Green and Oxford (1995), and Young and Oxford (1997). Similarly, Gu (2002) reports that female learners employ VLSs that are found to be correlated with success in EFL learning significantly more often than their male counterparts. Still another study that yields similar findings is Kayaoğlu's (2012). He recruits 115 science students for his research. The results reveal higher strategy use by females in all strategy categories. Another researcher, Ping (2002) also concludes that females use more varied strategies more frequently.

Malik and Akhtar (2015) carry out a large-scale study recruiting 3059 high-school students, and based on the findings of their research, they report female learners as “ardent” users of VLSs. Similarly, as a result of their large-scale research (with 1006 participants), Peacock and Ho (2003) conclude “females are strong in the use of memory and metacognitive strategies”. Also, in line with these, the findings of Aslan's (2009) research with 257 participants reveal female superiority over males in all strategy groups, though non-significant. Liyanage and Bartlett (2012) look at the relationship between gender and strategy use. The findings also show that female and male learners have different choices in strategy use. That is, “some strategies are clearly preferred by females while some others are clearly preferred by males”. Lastly, a study on 105 Chinese English major freshmen reveals that they use a variety of VLSs including metacognitive, cognitive and social/affective strategies, with a difference between males and females (in favour of females) in strategy use (Lou, 2014).

Among the other studies with a focus on gender differences in VLS use, Ching and Wang's (2015) study with 400 Taiwanese students also reveal significant differences in all strategy categories (3 in the case of this study) between females and males. Maryam and Hashemi (2014), who recruit 449 medical sciences students for their research, conclude that female students to use social strategies significantly more frequently than their male

counterparts. Şerabatır (2008), who collects the study data from 337 Turkish 6th and 7th graders, concludes significantly more frequent use of VLSs by females. Lin (2015), who works with 596 6th graders, similarly finds VLS use by the members of the two genders to be significantly different from each other. Soureshjani (2011) also looks at gender differences in VLS use by Iranian learners, and observes a significant difference in strategy use by members of the two genders. Similarly, Üster's (2008) study on Turkish university students' VLS use, yields significant difference between males and females in favour of females. To give more details, females are found to deploy 'determination, social, and cognitive strategies' more frequently than males while males deploy 'memory strategies' more than females do.

Contrary to the abundance of research findings favouring females over males in strategy use in the literature, Tercanlioglu (2004), who collects data from 184 pre-service teachers, finds significant gender difference favouring males in her study. Another study revealing findings in line with Tercanlioglu's (2004) is Kocaman's (2015), who concludes a significant difference between males and females in compensation strategy group of VLSs in favour of males, and non-significant gender differences in the rest of the strategy groups; namely, memory, cognitive, metacognitive, affective, and social. In a much earlier study, Tran (1988) also discovers adult Vietnamese males use more strategies than their female counterparts.

Despite the studies concluding the superiority of either gender group over the other, in a study on VLSs and multiple intelligences from a gender aspect, Ahour and Abdi (2015) report no difference between the members of the two gender groups in terms of the most and least frequently used strategy groups. Still another researcher who finds no significant relationship between gender and strategy use is Sung (2011). Another study concluding that VLS use by the two gender groups did not differ significantly is Tan and Hoe's (2009). Wei (2007) did not find a significant difference between female and male university students (totally 60 of them) in terms of their VLS use, either.

To continue with the studies finding no significant difference in VLS use between the two gender groups, Mustapha and Hatta (2018) conclude no significant difference in the use of general VLSs. Similarly, Manuel (2007) finds no significant difference between the gender groups in their overall VLS use. Similarly, Astika (2016) looks at 706 secondary school students' use of VLSs, and reports the relationship between gender and VLS use to be non-significant. Yaprak, Hayta and Yaprak (2013) investigate over 250 university students' use of VLSs and conclude that there is no significant relationship between gender and VLS

use, either. Similarly, Karahan Üzülmöz (2015) collects the study data from 8th graders, and reports no significant difference in VLS use between genders. Lastly, Ay (2006), who collects data from Turkish 9th graders, does not find any significant difference between the two gender groups, either. To provide an easier grasp of this contradicting study results, a table categorising the studies on the relationship between gender and VLS use according to their findings has been provided below.

Table 2

Gender and VLS use according to studies in the literature

Gender non-significant*	Gender significant**	
	Female dominance	Male dominance
Abu Shmais, 2003	Aslan, 2009	Tercanlioğlu, 2004
Ahour and Abdi, 2015	Catalan, 2003	Tran, 1988
Astika, 2016	Ehrman and Oxford, 1989	Wharton, 2000
Ay, 2006	Green and Oxford, 1995	
Karahan Üzülmöz, 2015	Gu, 2002	
Manuel, 2007	Kaylani, 1996	
Mustafa and Hatta, 2018	Lin, 2015	
Sung, 2011	Liyanage and Bartlett, 2012	
Tan and Hoe, 2009	Lou, 2014	
Tsai and Chang, 2009	Malik and Akhtar, 2015	
Wei, 2007	Maryam and Hashemi, 2014	
Yaprak, Hayta, and Yaprak, 2013	Mochizuki, 1999	
	Oxford, Lavine, Holloway, Felkins, and Saleh, 1996	
	Peacock and Ho, 2003	
	Soureshjani, 2011	
	Şerabatır, 2008	
	Üster, 2008	
	Wang, 2015	
	Young and Oxford, 1997	

(*refers to the research findings revealing gender as a non-significant factor in VLS use, ** refers to the ones revealing significant difference between the two genders in VLS use)

Table 2 above alphabetically lists the studies on the relationship between gender and VLS use according to their findings. According to the table, it is clear that despite the lack of a consensus on the relationship between gender and strategy use, a vast majority of the studies in the literature on this topic have revealed statistically significant results in VLS use in favour of females over males. Also, a number of studies reveal a non-significant effect of gender on strategy use while the ones that conclude male dominance over females in strategy use are very few.

To conclude, it is true that gender and its relationship with VLSs as a study topic has attracted a good deal of attention from researchers. However, the controversial results which

studies in the literature have yielded prompts the existence of other factors affecting strategy use besides gender and that the results cannot be predetermined as these factors work as a web. This is actually the reason behind the need for more studies; to get an insight into the way strategies work.

2.3.3. Academic major

Academic major – or discipline / field of study / learner departments, in other words – is another factor looked into by some studies focusing on the differences in strategy use among learners. Academic major is seen as a potent factor to be related with the use and choice of strategies. Many studies in the literature (Dreyer & Oxford, 1996; Gu, 2002; Kayad, 1999) show that almost all learners use strategies from all the six strategy groups in Schmitt's (1997) classification in their learning process, though at different frequency levels.

Generalisation for learners majoring in social sciences or arts to prefer to use more strategies (especially cognitive and social strategies) in comparison with their counterparts majoring in science (Peacock & Ho, 2003; Rao & Liu, 2011; Rong, 1999) can be found in almost all studies in the field. Yet, whether learners' academic orientation affects their strategy use remains to be a controversial issue with some studies (Bernardo and Gonzales, 2009; Boonkongsan & Intaraprasert, 2014; Chiang, 2004; Liao, 2004; Mingsakoon, 2002; Mochizuki, 1999, Muniandy & Shuib, 2016; Peacock & Ho, 2003; Zhang, 2009) finding it as a significant factor while some others (Gu, 2002; Meshkat & Khanjani, 2014) conclude that the relationship between academic major and strategy use is not significant.

To start with the studies revealing academic major as a significant factor that affect learners' strategy use, Peacock & Ho (2003) conducted research on 1006 learners across eight disciplines, and investigated how they employ 50 common LLSs. The research findings revealed that English major students used the most strategies while computing majors used the fewest with a very low use of metacognitive strategies. In addition, follow up interviews with 48 of the participants revealed the use of fewer strategies outside humanities, and the perception of studying English as of less importance for their disciplines. The researchers made suggestions for teachers "to be aware of possibly sharp disciplinary differences in strategy use and to apply discipline-specific strategy training where appropriate".

Similarly, in a study investigating VLS use in relation to academic majors (arts, business, and science) of 905 Thai EFL learners, Boonkongsan and Intaraprasert (2014) concluded a significant relationship between VLSs used and fields of study, favouring arts

major over business majors and science majors in all three strategy groups; namely, discovery, retention, and expansion. Muniandy and Shuib (2016) conducted research in the Malaysian context, and similarly, concluded difference in the use of LLSs between learners from management and communication departments in favour of the former group. The results were significant for social strategies. Similarly, Bernardo and Gonzales (2009), Chiang (2004), Liao (2004), Mingsakoon (2002) Mochizuki (1999), and Zhang (2009) noted academic major as significantly related to strategy use. In conclusion, most of the studies finding a significant relationship (Peacock & Ho, 2003; Rao and Liu, 2011; Rong, 1999) conclude that social science and arts major learners use more varied strategies more frequently than their science major counterparts.

Differently from the findings of other researchers studying academic major, Gu, (2002, p. 35), who studied the relationship between VLS use and both gender and academic major, reported that although there were differences between arts and science majors in strategy use, the differences on most strategy categories between the two academic majors “were less clear-cut than were those between male and female participants”. Still another study finding no significant relationship between learners’ academic majors and strategy use is Meshkat and Khanjani’s (2014).

Just like the previous factor affecting strategy use, gender, studies dealing with the relationship between VLSs and academic major seem to yield controversial findings, which also shows the need for further research in the area. In addition to this, in light of the studies mentioned here, the researcher of this study has decided to take learners’ academics majors and genders into account, as well, while investigating the VLSs Turkish graduate learners of English use in the ESL and EFL contexts. By doing so, the researcher of this particular study aims to make sure any difference to be found between the two contexts (in terms of learners’ VLS use) results from the context itself, which, in turn, will add to the reliability of the results.

2.4. VLSs and Achievement

The main reason, among many others, why researchers investigate the strategies learners employ is to discover the strategies that are effective in vocabulary learning, which is also the aim of this present study. Thus, this concern has led to the investigation of strategies successful learners employ. In other words, strategies that are conceived effective are the strategies that are often used by learners that attain a high level of proficiency. In the

literature, there are a number of studies investigating the relationship between VLSs and achievement.

Although there are a number of studies in the literature investigating the relationship between achievement and VLS use, achievement is determined in a variety of ways. Using learners' general academic achievement (in all subjects as determined by their grade point averages), using their general English language proficiency levels (as determined by a variety of exams), using learners' vocabulary levels, vocabulary sizes, depth of vocabulary knowledge, or their grades in a vocabulary test as a determinant for their levels of achievement are some of the common practices.

To start with, an example to the studies that attempt to clarify the relationship between VLS use and achievement as determined by their grade point averages is Putri and Wahyunu's (2019). In order to find out about higher-achiever learners' VLS use, the researchers collected data from 26 university students with a grade point average of 3.51 (out of 4) and above. The results reveal that higher-achiever students most commonly use cognitive strategies, which include strategies of note-taking, analysing, using a dictionary, and so on. To the researchers, the reason why higher-achiever learners employ these strategies (as supported by qualitative data) is that these strategies help them learn vocabulary as well as being effective and easy to implement.

Some other studies investigating the relationship between learners' VLS use and achievement regard students' English language proficiency levels as a determinant for their level of achievement. Nosidlak (2013), for instance, investigate 102 advanced level university students' VLS use and tried to make connections with VLSs frequently used by them. She concluded that the most frequently used VLS category by the advanced students was cognitive strategies. She also concludes that the VLSs learners used were level-dependent; in other words, learners' levels of proficiency affected the VLSs they used. In another a piece of research conducted to compare VLS use by learners with a high and low level of proficiency in English language, Alharbi (2015) reveal that students with a high level of proficiency used VLSs in a very similar way to each other while students with a low level of proficiency did not seem to have one single pattern in their VLS use. Similarly, Gu (2003) looks at two successful EFL learners' VLS use in the Chinese context, and finds out that they both regard vocabulary as a crucial aspect of the language learning process, and that they employ a variety of VLSs.

Still some other researchers investigating achievement (as determined by a variety of English language achievement tests) and VLS use are Acar (2016), Bozatlı (1998) and

Zabardast Alamdari (2010), for instance, who looked into successful university level learners' use of VLSs. All three studies conclude that successful learners employ a variety of VLSs quite frequently. As for the strategy groups most commonly used by successful learners, Bozatlı (1998) reports more frequent use of cognitive and metacognitive strategies, while both Acar (2016) and Zabardast Alamdari (2010) concludes that successful learners use cognitive and social strategies more frequently.

Similarly, with the goal of investigating the relationship between VLS use and their general English language achievement, Yunhao (2011) collected data from 120 sophomore English majors at a Chinese university via a 26-item VLSs questionnaire and a nation-wide test of English (CET-4). The students were categorised as high-level (those with a score of 550 and above out of the total possible score of 710) medium-level (those with a score between 450 and 549) and low-level learners (those with a score lower than 450). The researcher enrolled 6 students randomly from the high-level group, and 6 from the low-level (excluding the mid-level) with equal distribution of gender. The results reveal that high-level students used 21 out of the total 26 VLSs more frequently than the low-level students, which shows that strategy use is positively correlated with achievement. The results also indicate that high-level learners employ more varied strategies than low-level ones. Moreover, neither high-level nor low-level learners use mono-lingual (English to English) dictionaries frequently.

In addition to the studies on VLS use and achievement as determined by learners' general levels of English language proficiency mentioned above, there are some other studies in the literature with a focus on the relationship between learners' VLS use and achievement as determined by their vocabulary sizes. All of these studies investigated university students though in a variety of contexts. Kalajahi and Pourshahian (2012), for instance, collected the study data from 125 university students in a university in Cyprus. The results indicated that there was relationship between the vocabulary size of the participants and their overall VLS use. Waldvogel (2013) investigated the VLS use and vocabulary size of 475 university students learning Spanish as a foreign language at a variety of language levels. The researcher found a significant relationship between the use of certain kinds of VLSs and vocabulary size among advanced learners, but not among beginning or intermediate level students. These findings suggest that lower-level learners of Spanish as a foreign language fail to present a pattern in their use of VLS, which could result from being less competent in managing their own vocabulary learning.

A study which correlated students' VLS use with both their vocabulary sizes and TOEFL results was conducted by Mutlu Ekmekçi (1999). She collected data from 120 freshman studying at a Turkish university. The findings reveal that learners use a variety of VLSs. Also, a positive correlation between vocabulary size and 'selective attention', and between TOEFL scores and 'using word structure' while a negative correlation between TOEFL scores and 'visual repetition' and 'activation' strategies were observed. In another prominent study investigating the relationship between VLS use and achievement; Gu and Johnson (1996), correlated students VLS use with their vocabulary sizes. The findings show that the VLSs like contextual guessing, skilful use of dictionaries, note-taking, paying attention to word formation, contextual encoding, and activation of newly learned words correlate with students' vocabulary sizes while other strategies like visual repetition of new words does not correlate.

To continue with more studies on the relationship between learners' VLS use and vocabulary sizes, Young and Sooyoung (2016) conducted a study in the Korean context with 133 university students from high and low levels. The results indicate significant differences between the two groups in all categories of VLSs in Schmitt's (1997) taxonomy. There was a positive correlation between learners' VLSs and vocabulary size, with a prominent one especially between their 'metacognitive' strategy use and vocabulary size. Lastly, a similar study was carried out by Komol and Sripetpun (2014) in the Thai context. The results show a relationship between VLS use and vocabulary size. This clearly shows that most of these studies indicate a positive relationship between learners' VLS use and vocabulary size.

Vocabulary levels of learners, which has also been used for the purposes of the present study, were also regarded as a determinant for students' achievement by a number of studies while investigating its relationship with VLS use. In this respect, some studies focussed on higher-achiever learners' strategy use. Among these studies, Kafipour, Yazdi, Soori, and Shokrpour's (2011) data were collected from 238 Iranian EFL learners. The study reveals that all VLSs correlated with the overall vocabulary learning of the student. The highest correlation is related to the use of memory strategies and the lowest to the use of social strategies. On the other hand, unlike many other studies, Şerabatır (2008), who collected the study data from over 250 6th and 7th graders, reported a positive correlation between vocabulary achievement and the use of social and note-taking strategies. Similarly, Bozgeyik (2011) collected data from over 250 university students, and concluded a correlation between metacognitive strategy use and learners' vocabulary levels, yet with no proof of single VLSs indicating vocabulary levels. Also, in a study about the most and the

least effective VLSs in terms of their employment by learners with a high vocabulary level, Şener (2003) concludes that the most effective strategies are cognitive and metacognitive, and the least effective category is social strategies. The study also reveals that memory and social strategies are the most and the least commonly used strategy groups, respectively.

When the research findings provided above on the VLS use of high-achiever learners are concerned, one of the VLS sub-categories emerge as the most commonly used one by these learners. Most of the studies mentioned here (Acar, 2016; Bozatlı, 1998; Nosidlak, 2013; Putri & Wahyuni, 2019; Şener, 2003; Zabardast Alamdari, 2010) reported *cognitive strategies*, which are used to consolidate a word through verbal and/or written repetition, word lists, flash cards, etc. after the first encounter with it, as the most commonly used VLS category.

Some of the studies (Bozgeyik, 2011; Şener, 2003; Young and Sooyoung (2016) concluded that *metacognitive strategies*, which require a deeper command of the language, are used by high-achiever learners most frequently. Komol and Sripetpun (2014) found *determination strategies*, which are the VLSs used to determine the meaning of a word at the first encounter with it such as analysing part of speech, guessing from context, etc., as the most frequently used VLS category. Kafipour, Yazdi, Soori, and Shokrpour (2011), on the other hand, reported *memory strategies*, which are generally more mechanical strategies employed to consolidate a word in the memory such as studying the spelling, underlining the initial letter, etc., as the most commonly used VLS category. On the other hand, *social strategies* were reported to be the least frequently used VLS category by some studies (Kafipour, Yazdi, Soori, & Shokrpour; 2011; Komol & Sripetpun, 2014; Şener, 2003).

Another conclusion one can drive regarding the aforementioned research findings is that high-achiever learners use VLSs more frequently than other learners. This might actually work both ways, that is; achievement might actually be the result of using VLSs more frequently than other, or more frequent use of VLSs might stem from achievement itself. In either case, it means there is a high correlation between VLS use and achievement, which is what matters.

The rationale behind the investigation of the relationship between learners' vocabulary levels and their VLS use is that getting to know more about the VLSs used by learners with high vocabulary levels will enable us to equip students with these, thus in turn, helping them become more independent (less dependent on the teacher for vocabulary learning), and more proficient. Also, since vocabulary is closely related to all four language skills, students' overall proficiency levels are expected to improve in the long run.

CHAPTER III

METHODOLOGY

In this chapter information on the research design, the participants in the study, data collection instruments and procedures as well as the data analysis techniques used have been provided.

3.1. The Present Study

This descriptive study has been designed to investigate whether there is a difference between the Vocabulary Learning Strategies (VLSs) deployed by Turkish ESL learners in the UK and EFL learners in Turkey; that is, the role of language learning context (EFL or ESL) in the use of VLSs of Turkish students. The study data were gathered from graduate students in both contexts.

Strategy data were collected through a questionnaire while vocabulary levels were measured via the Vocabulary Levels Test (VLT).

3.2. Participants

The participants in the present study were composed of two groups of learners; one representing the *second language* context (ESL) and the other representing the *foreign language* (EFL) context. The first group consisted of 49 Turkish graduate students attending a variety of departments at 21 different universities in the UK in 2014-2015 academic year. And the second group consisted of 79 Turkish graduate students attending a variety of all-English departments at 27 different universities in Turkey. That is, the sample group consisted of 128 graduate students, with 49 from ESL and 79 from EFL context.

The participants in the study were determined via the random cluster sampling method among the probability sampling techniques. Language context was first divided into two as ESL and EFL contexts, and then as many graduate students as possible from each context were recruited.

3.3. Data Collection Instruments

The permissions from both the University of Exeter Graduate School of Education and Dokuz Eylul University Institute of Educational Sciences ethical committees, the documents regarding which have been provided on Appendix 11 and 12, were taken prior to

the data collection process. The study data were collected via ‘Vocabulary Learning Strategies Questionnaire’ (VLSQ) and ‘Vocabulary Levels Test’ (VLT). In addition, a personal data form was filled in by each participant.

3.3.1. Personal data form

In an attempt to elicit some personal data about the participants in the study, a personal data form was prepared by the researcher. The ‘Personal Data Form’ (PDF) aimed to elicit the information concerning the participants’

- age,
- gender,
- name of the university they are attending,
- field of study, and
- educational level (master’s / doctorate student).

See Appendix 2 for the original personal data form in Turkish and Appendix 3 for its translation into English.

3.3.2. Vocabulary learning strategies questionnaire

Oxford (1990, p. 179) views a questionnaire as “one of the leading methods to determine the strategies” deployed by learners. It is defined by Dörnyei (2002, p. 6) as “any written instruments that present respondents with a series of questions or statements to which they react either by writing out their answers or selecting from among existing answers”. According to Nunan (1992, p. 231), a questionnaire is a tool to gather data, “usually in written form, consisting of open and/or closed questions and other probes requiring a response from subjects”. Cohen, Marion, and Morrison (2007, p. 319), on the other hand, make a distinction between structured and unstructured types of questionnaires stating that “structured questionnaires, differently from unstructured ones, are objective in that they are made up of items with multiple options which can be objectively scored and analysed”. Thus, patterns can be observed and comparisons can be made. However, as Wilson and McLean (1994, p. 3) state that “these attractions of structured questionnaires are counterbalanced by the time taken to develop, pilot, and refine the questionnaire”. Yet, that is why a structured format has been chosen in the development of the questionnaire used for the purposes of this particular study.

The questionnaire used in this study has been devised by the researcher in accordance with Schmitt's (1997) taxonomy of VLSs to gather data about learners' frequency of VLS use and their perceptions of strategy usefulness to find an answer to the first sub-problem of the research, which is as follows:

1. a) What strategies are deployed by Turkish ESL learners the UK?
- b) What strategies are deployed by EFL learners in Turkey?
- c) Is there a significant difference between the vocabulary learning strategies deployed by Turkish ESL learners in the UK and EFL learners in Turkey?

As for the motivation to develop a questionnaire in line with Schmitt's (1997) taxonomy instead of using an already used one, there were a number of reasons. First of all, when the researcher started to look for the best VLSQ for the purposes of this particular study, she realised that one which would include strategies that are / could possibly be used in EFL and/or ESL contexts was almost impossible to find. Also, the questionnaire needed to be appropriate for adult language learners as the participants in this particular study are master's or doctorate students, in other words, graduate learners. Another reason was that the questionnaire to be used for the purposes of this study needed to have a section for the perceived usefulness of the strategies by learners as well as their frequency of use, which is also a rare feature to be found.

The VLSQ has been prepared by the researcher in accordance with the taxonomy of VLSs by Schmitt (1997). The preliminary step of VLSQ preparation was listing as many VLSs as possible. To this end, in both contexts learners were asked to note how they learnt new vocabulary and how they tried to keep new words in mind. In this way, the researcher was able to detect some of the VLSs used in each context. In the next phases of the questionnaire preparation, the help of books on LLSs, VLSs, and of the related literature, especially of the studies including Serçe's (2013) VLSQ, which was mostly based on Schmitt's categorisation and was prepared in Turkish, and the help of the works of Lai (2005), Hancıoğlu (2004), Şebatır (2008), Tezgiden (2006), and Uğurluer Torun (2010) cannot be disregarded. At the end of this thorough process of listing/writing VLS items, the researcher had a bulk of items in hand.

In the next phase of developing a VLSQ for the purposes of this particular study, this pool of VLS items were categorised so that each item corresponded with a sub-category in Schmitt's (1997) classification, and then, were submitted to two scholars who were working in the field of TESOL with many years of experience, one of whom was at the same time supervising the study as well as being a native speaker of English and an advanced level

speaker of Turkish, which enabled him to view the questionnaire critically regarding the match between the questionnaire items and the categories suggested by Schmitt (1997). Later, three Turkish graduate students studying at the University of Exeter (who were not recruited in the main study) were given this primitive version of the questionnaire. As a result of the feedback from them, some items were changed, some were even totally deleted while additions to some items were made, and some others were rewritten (wording-wise). Then a VLSQ was ready to be tested on a pilot group.

The piloting version of the VLSQ was administered to 15 graduate (master's level) EFL learners at Dokuz Eylul University in Turkey. The participants were also asked to report on the items they did not understand or did not find meaningful in a separate column provided on the piloting version of the questionnaire. The analysis of the piloting data revealed that students did not experience any difficulty in comprehending the items and that their reply to each item was consistent with their other replies. After a second submission of the VLSQ together with its piloting analysis reports to the two scholars, the questionnaire was approved to be ready for the main data collection process.

For the collection of the main data of the study, an online version of the questionnaire was prepared for the reasons of practicality. Then, a doctorate student in the ESL (the UK) context was asked to try out the online survey and report on his experience as to its duration and his impression of the questionnaire along with any other things he would like to suggest.

As a result of the feedback from all the sources mentioned above, the final version of the VLSQ was ready with its 54 items for the collection of the main data of the study. Please see Appendix 4 for this final version of the VLSQ (in its original language, Turkish), and Appendix 5 for its translated version into English. To give a more detailed account of the match between the items of the questionnaire with the strategy categories; the final version of the questionnaire corresponds with 51 of the 58 strategy categories in Schmitt's (1997) taxonomy of VLSs (see Figure 12 below, and Appendix 6 for an even more detailed version).

A. Strategies for the discovery of a new word's meaning

a. Determination strategies

- D-DET 1 (*Item 1*) Analyse part of speech
- D-DET 2 (*Item 2*) Affixes and roots
- D-DET 3 (*Item 3*) Check for L1 cognate
- D-DET 4 (*Item 4*) Analyse pictures and gestures
- D-DET 5 (*Item 5*) Guess from textual context
- D-DET 6 (*Item 6*) Bilingual dictionary
- D-DET 7 (*Item 7*) Monolingual dictionary
- D-DET 8 **NO ITEM**
- D-DET 9 **NO ITEM**

b. Social strategies

- D-SOC 10 (*Item 8*) Ask teacher for L1 translation
- D-SOC 11 (*Item 9&10*) Ask teacher for paraphrase or synonym of new word
- D-SOC 12 (*Item 11*) Ask teacher for a sentence including new word
- D-SOC 13 (*Item 12&14*) Ask classmates for meaning
- D-SOC 14 (*Item 13*) Discover new meaning through group work activity

B. Strategies for consolidating a word once it has been encountered

a. Social strategies

- C-SOC 15 (*Item 15*) Study and practice meaning in a group
- C-SOC 16 (*Item 16*) Teacher checks students' flashcards or word lists for accuracy
- C-SOC 17 (*Item 17&18*) Interact with native speakers

b. Memory strategies

- C-MEM 18 (*Item 19*) Study word with a pictorial representation of its meaning
- C-MEM 19 (*Item 20*) Image word's meaning
- C-MEM 20 (*Item 21*) Connect word to a personal experience
- C-MEM 21 (*Item 22*) Associate the word with its coordinates
- C-MEM 22 (*Item 23*) Connect the word to its synonyms and antonyms
- C-MEM 23 (*Item 24*) Use semantic maps
- C-MEM 24 (*Item 25*) Use scales for gradable adjectives

C-MEM 25 **NO ITEM**

- C-MEM 26 **NO ITEM** Pegword method
- C-MEM 29 (*Item 28*) Loci method
- C-MEM 30 (*Item 29*) Use new word in sentences
- C-MEM 31 (*Item 30*) Group words together within a storyline
- C-MEM 32 (*Item 31*) Study word spelling
- C-MEM 33 (*Item 32*) Study sound of word
- C-MEM 34 (*Item 33*) Say word aloud
- C-MEM 35 (*Item 34*) Image of word form
- C-MEM 36 (*Item 35*) Underline initial letter
- C-MEM 37 (*Item 36*) Configuration
- C-MEM 38 (*Item 37*) Use keyword method
- C-MEM 39 (*Item 38*) Affixes and roots (remembering)
- C-MEM 40 (*Item 39*) Parts of speech (remembering)
- C-MEM 41 (*Item 40*) Paraphrase word meaning
- C-MEM 42 (*Item 41*) Use cognates in study
- C-MEM 43 (*Item 42*) Learn words of an idiom together
- C-MEM 44 (*Item 43*) Use physical action
- C-MEM 45 (*Item 44*) Use semantic feature grids

c. Cognitive strategies

- C-COG 45 **NO ITEM** Verbal repetition
- C-COG 46 (*Item 44*) Written repetition
- C-COG 47 (*Item 45*) Word lists
- C-COG 48 (*Item 46*) Flash cards
- C-COG 49 (*Item 47*) Note-taking
- C-COG 50 (*Item 48*) Use vocabulary section in textbooks
- C-COG 51 (*Item 49*) Listen to tape of word lists
- C-COG 52 (*Item 50*) Put L2 labels on physical objects
- C-COG 53 (*Item 51*) Keep vocabulary notebook

d. Metacognitive strategies

- C-MET 54 (*Item 52*) Use L2 media (songs, movies, newscasts, etc.)
- C-MET 55 (*Item 53*) Testing oneself with word tests
- C-MET 56 **NO ITEM** Use spaced word practice
- C-MET 57 **NO ITEM** Skip/pass new word
- C-MET 58 (*Item 54*) Continue to study word over time

Figure 12. VLS categories on Schmitt's (1997, p. 205-206) taxonomy and questionnaire items corresponding with each category

An analysis of Figure 12 above reveals some differences between Schmitt's (1997) categorisation of VLSs and the VLSQ used for the purposes of the present study. These differences can be categorised into three main groups:

A. Three of the categories on Schmitt's (1997) taxonomy are represented twice while they are represented only once in the present questionnaire. These strategies,

1. *D-DET 8: Word lists*
2. *D-DET 9: Flash cards*

appear in both 'determination' and 'consolidation strategies' sections of the taxonomy while they appear only as 'consolidation strategies' in the questionnaire. Because, these strategies tend to be more likely to be used by learners to consolidate already encountered vocabulary rather than to determine the meaning of a word at first encounter with it.

Also, two of the VLS categories on the taxonomy are found to be very similar to each other by the researcher. That is why there are no corresponding items with the following category of VLSs in the questionnaire:

3. *C-COG 45: Verbal repetition*

Both this category and C-MEM 33, which is 'say new word aloud when studying', are *consolidation strategies*. So, the researcher has chosen to include the later one in the questionnaire.

B. There are four VLS categories on Schmitt's (1997) taxonomy that do not have a corresponding item in the questionnaire used in this study. These are:

1. *C-MEM 25: Pegword method*
2. *C-MEM 26: Loci method*

Both pegword method and loci method refer to strategies for linking words with no sense relationships together.

One first memorizes a rhyme like 'one is a bun, two is a shoe, three is a tree, etc.' Then an image is created of the word to be remembered and the peg word. If the first word to be remembered is chair, then an image is made of a bun (peg word) resting on a chair. Recitation of the rhyme draws up these images, which in turn prompt the target words (while) in the Loci Method, one recalls a familiar place, such as a street, and mentally places the first item to be recalled in the first location, the second item in the second location, and so on. To recall the items, one mentally proceeds along the landmarks and retrieves the items which have been associated with each location (Schmitt, 1997, p. 209).

As the explanation suggests both strategies are quite indirect, demanding, and time consuming. Thus, they do not seem to be suitable for adult learners. Furthermore, no students declared that they used these methods on the student notes (as a reply to the open-ended question *How do you learn and rehearse English vocabulary?*) collected prior to the preparation of the questionnaire.

Richmond and Cummings (2008) investigated the use of the loci, pegword, and keyword methods by eighth-graders. As a result of the study, they reported that these methods may be successfully used to study a different content. However, just like Scruggs, Mastropieri, and Levin suggest (1987, p. 228); “mnemonic instruction, as powerful as it has been shown to be, is not an educational panacea”.

A large-scale study (n: 2,802) on the use of loci method by older adults (with a mean age of around 70) was conducted over a period of ten years’ time. The study results revealed that only about 2% of the control group (who received no training on the method) used it while up to 18% used it right after the training. And when the training continued with time intervals (over a ten-year period), about 25% of the participants used the method. The study results prove the method far from being useful. The researchers also describe the method as an “attentionally demanding and effortful” one (Gross, Brandt, Bandeen-Roche, Carlson, Stuart, Marsiske, & Rebok, 2014).

3. *C-MET 56: Use spaced word practice*

Generally, students do this kind of exercises as part of their coursebook or homework. However, VLSs are the strategies students use when they are learning vocabulary on their own with no guided materials.

4. *C-MET 57: Skip / Pass new word*

The researcher finds it dubious whether to actually regard this strategy (skip or pass new word) as a vocabulary ‘learning’ strategy. It should be regarded more as a reading comprehension strategy, etc.

C. There are also a few cases when a single (micro) VLS on the taxonomy is represented with more than one item in the questionnaire. These are as follows:

1. *D-SOC 11: Ask teacher for paraphrase or synonym of new word*

While item 40 refers to synonym (and also antonym) aspect of this strategy category, item 41 deals with the paraphrasing part of it.

2. *D-SOC 13: Ask classmates for meaning*

Both item 43 and Item 45 refer to the interactive discovery of a new word’s meaning.

3. *C-SOC 17: Interact with native speakers*

Items 50 and 51 both correspond with this category of VLSs representing different (spoken and written) forms of interaction.

The questionnaire was designed on a five-point Likert-scale and it was given values from 1 to 5. The questionnaire was prepared to elicit students' use of vocabulary learning strategies as well as their perceived usefulness concerning each item. Statements of 'frequency of use' were scored as:

- 1 = Never,
- 2 = Seldom,
- 3 = Sometimes,
- 4 = Often,
- 5 = Almost Always

while the 'usefulness' items were scored as follows:

- 1 = Not Useful at All,
- 2 = Not Very Useful,
- 3 = Not Sure,
- 4 = Somewhat Useful,
- 5 = Very Useful.

See Appendix 4 for the Vocabulary Learning Strategies Questionnaire, part of which has been provided below on Figure 13 as well as its scoring scale prepared by the researcher in its original form in Turkish, the language the questionnaire was administered in, and Appendix 5 for its translation into English.

	Bu stratejiyi hangi sıklıkta kullanıyorsunuz?					Bu stratejiyi ne ölçüde yararlı buluyorsunuz?				
	Hiçbir zaman	Nadiren	Bazen	Sık sık	Neredeyse hep	Hiç yararlı değil	Pek yararlı değil	Emin değilim	Kısmen yararlı	Çok yararlı
1. Kelimenin anlamını, sözcük türünü (örneğin; isim, fiil, sıfat, vb.) inceleyerek tahmin etmeye çalışırım.										

Figure 13. The VLSQ format with frequency and usefulness sections

The reliability of the VLSQ, as measured by Cronbach Alpha coefficient was calculated to be .84 and .94 for the two main sub-categories of the VLSQ; namely, *discovery* and *consolidation* strategies, with an overall Cronbach Alpha coefficient of .95.

3.3.3. Vocabulary levels test

In this study, in order to measure the extent to which Turkish graduate students in an ESL context (in the UK, in this case) and EFL context (Turkey) know words clustered into bands according to their frequency of use, the Vocabulary Levels Test (VLT), which is “a form of multiple-choice recognition test and aims to supply a profile of learners’ vocabulary” (Schmitt, 2010, p. 198), was preferred to be used. VLT used in this present study is Schmitt’s (Schmitt, Schmitt, & Clapham, 2001) version of the VLT, which was first developed by Nation (1983, 1990) in early 80s. Since the development of the earliest version, the test has been widely used in New Zealand, where it was developed, and many other countries (Qian, 2002; Teng, 2014; Xing & Fulcher, 2007) with many of its versions including productive / active (Laufer & Nation, 1995; 1999) and dictative (Fountain & Nation, 2000) ones, making it “perhaps the best known and most widely used vocabulary test” (Webb & Sasao, 2013). According to Read (2000, p. 118), the test has “proved itself to be a useful tool for diagnosing vocabulary testing of migrant and international students”, which is one of the reasons why this test has been chosen to be used in this study. Meara’s (1996, p. 38) referring to the test as “the nearest thing we have to a standard test in vocabulary” is another reason for using this particular test in this study. Still another reason is that the 2001 (Schmitt et al.’s) version of the test has been studied for validity with a range of ESL and EFL learners. The VLT is also thought by its creator, Nation (2001, p. 416) to be “a diagnostic test, which is used to find out where learners are experiencing difficulty” so that something can be done about it. Similarly, this study aims to discover what students find difficult about vocabulary as well as what level their vocabulary knowledge is.

The test was designed in five word-levels; namely, 2,000, 3,000, 5,000, 10,000 and Academic word-levels. The five levels of the test, each representing a particular word frequency, are based on a variety of word lists. The 2,000 word-level (designed by Nation, 1983, 1990) includes words from the 2,000 high frequency words of the General Service List (West, 1953) while the 3,000, 5,000 and 10,000 word-levels were developed based on the 3,000, 5,000 and 10,000 most frequent words in the word-list created by Thorndike and Lorge (1944) (cited in Cameron, 2002, p. 147; Read, 2000, p. 119). On the other hand, the

Academic Word List prepared by Nation (1990, p. 19) was used as a source for the Academic Word Level. Unlike Nation's (1983, 1990) version of the test, in the more recent version of the VLT (Schmitt et al., 2001), which is used in this research, the Academic Word Level consisted of some words from Coxhead's (2000, p. 213-238) Academic Word List.

The test has "a form-recognition matching format, where the stem is the definition and the options are the target words" (Schmitt, 2010, p. 197). There are ten clusters (as opposed to six in the original version) of words per frequency level and each cluster is composed of six target words to be matched with three definitions next to them, making three of the words distractors. Thus, participants need to consider sixty words in each frequency level. In other words, test takers are required to "match 30 definitions to 30 out of 60 words" (Xing & Fulcher, 2007, p. 183) in each frequency level, which makes the total number of maximum possible correct answers 150.

A sample cluster of words on the VLT has been provided on Figure 14 below.

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	

Figure 14. A sample cluster of the questions on the VLT (Schmitt, Schmitt, & Clapham, 2001, p. 82-88)

Words in the same cluster are selected from the same part of speech, and there are five clusters of nouns, three clusters of verbs, and two clusters of adjectives in each frequency level. Schmitt et al. (2001) paid great attention to allot target words with very different meanings and starting with different letters as much as possible while they were forming the clusters. The target words were presented "in the alphabetical order and definitions were given in the order of length, from the shortest to the longest in each cluster to minimize aids to guessing" (Schmitt, 2010, p. 198). The VLT (Schmitt et al., 2001) has been prepared as two equal versions to make it appropriate as pre- and post- test in studies that include a treatment. In the present study, Version 1 (see Appendix 6) has been used, as there is no particular difference between Version 1 and Version 2.

3.3.3.1. Assessment of the VLT

Learners' scores at each of the five frequency levels on the VLT give us a chance to estimate the extent of their vocabulary knowledge, which obviously cannot be observed directly but has to be inferred from the proportion of the correct answers in each of the five word-levels (sub-tests). A variety of "inferences may be made at the levels of (1) item, (2) subtest and (3) whole test" (Read & Chapelle, 2001, p. 11).

Different researchers who used the test in their research did the assessment in a variety of ways. A few of them (in an order from the most recent to relatively the oldest) are as follows:

In a recent study, Lateh, Shamsudin, and Raof (2018) used the VLT in their study. They reported the results in terms of the percentage of the students mastering each word-level (by scoring 26 or above at each word-level) out of the total 70 participants. Another pair of researchers, Enayat and Amirian (2016), accepted 120 as the maximum possible score in the VLT (omitting the academic word level) and calculated group total mean score and group mean scores for each of the four word-levels. Similarly, Teng (2015) took the score 150, which is the number of maximum possible correct answers (including the academic word level), as his baseline and calculated one mean score (for the whole group of participants) out of 150.

In one of her two studies where she used the VLT, Peters (2015) calculated a mean score out of the 30 possible (for the whole group of participants) at each of the five word-levels of the test while producing one total average score out of 150 (without paying attention to the possible difference in the value of a correct answer at each of the five levels just like Teng did in 2015) in a relatively older research of hers (Peters, 2014). Besides, she regarded a score of 26 or above as a sign for 'mastering' the word level, and provided the number of participants who mastered each level, which is in line with Schmitt et al.'s (2001, p. 67) argument that achieving a score of 26 and above indicates mastery of that level.

Another researcher, Alonso (2013) used the 2,000 word-level of the VLT in his study. This researcher did not make use of a threshold level. Rather, he provided in his research paper the percentage of participants scoring between 0-5, 6-10, 11-15, 16-20, 21-25 and finally 26-30 out of the 30 questions at the word level. Another one, Kirchner (2013), provided in the report of her research the percentages of correct answers given by the groups of participants at each word-level. The researcher also used the findings of her research to estimate learners' vocabulary sizes.

Webb and Chang (2012), on the other hand, calculated the mean scores out of 30 for groups of participants at each word level as well as providing total means for groups (out of 30, again) without paying attention to the possible different values of a high mean score at the 2,000 word-level and at the 10,000 word-level, for instance. They also gave information about the number of participants who scored at or above the threshold level of 26 for each group.

Still another researcher, Webb (2007) used the 2,000 word-level sub-test and chose to take the percentage of correct answers at the word level as a means of assessment just as Kirchner (2013) did. Lastly, Cameron (2002), who used an earlier version of the VLT by Nation (1990), which had 18 questions at each word level, chose to give only the mean scores out of 18 for each word level.

The studies in the related literature provided above indicate that two main issues arise in the assessment of the VLT: the first being a threshold level (so as to be regarded successful at a word level) and the second being the issue being whether summing up the scores at each level of the test would give an acceptable total score on the test or not.

To start with the first issue, there are some contradicting views about a threshold level for the VLT. According to Xing and Fulcher (2007, p. 183), a test taker is expected to “score 24 (80%) or more out of the 30 items (definitions) in each word band in the test” so as to be regarded as successful, which will show that the examinee has “acquired the level”. They argue that, otherwise, it would mean that the test taker has not reached the level. The developers of this version of the test (Schmitt et al, 2001, p. 67), however, report that achieving a score of “26 and above” (87% or more) indicates “mastery” of that level.

Also, the question whether summing up the scores at each level of the test without paying attention to the possible difference in value between a correct answer at the 2,000 word-level and one at the 10,000 word-level would give a reliable and acceptable total score on the test or not is worth considering. On this issue, Read and Chapelle (2001, p. 11), argue that the five subtest scores could be summed to give a more general measure of the learner’s vocabulary knowledge at the whole test. Just like Peters (2015), Teng (2015), Webb and Chang (2012), and many others, Read and Chapelle (2001) did not pay any attention to the possible differences in value in their study.

To be able to make a good decision about this, the researcher of this present study planned to wait and see how well the two groups of participants in this particular study would perform at each word level, and then to decide on a threshold (for the mastery of each

level of) 24 (80%) or 26 (87%) out of the 30 items on each word-level. After determining the threshold, the researcher was able to;

- provide the number and percentage of participants who mastered each word-level (overall and in relation to context, gender, and academic major),
- calculate a total average score on the whole test for each participant and present the results in relation to context, gender, and academic major,
- apply the *word-level threshold* to the whole test, and thus determine the students with a high level of vocabulary (with implications for context, genders, and academic majors again), and
- combine this information with students' VLS data.

3.3.3.2. Validity and reliability of the VLT

Information on validity and reliability of the VLT has been provided by Schmitt et al. (2001). The researchers reported Version 1, which was also used for the purposes of this present study, was both reliable (with Cronbach Alpha scores for the five word-levels ranging from .920 to .958 and valid (with factor analysis revealing loadings on factors ranging between .975 and .989, and percentages of variation explained ranging between 95 and 97.9 at the five word-levels).

For the purposes of this particular study, a test for the analysis of reliability of the VLT (with its five sub-scales) was run using the data from this study as well. The results revealed that each of the five sub-scales of the VLT (namely, 2,000, 3,000, 5,000, 10,000 and Academic word levels) indicated Cronbach Alpha values ranging between .936 and .961, showing the test as a reliable measure with a high level of internal consistency.

3.4. Data Analyses

Descriptive statistics (such as mean and standard deviation), *t* test, analysis of variance, (ANOVA), analysis of covariance (ANCOVA) and multivariate analysis of variance (MANOVA) were utilized in data analysis. Also, since the number of participants was “more than 30” (128) according to “Central-Limit Theorem, parametric tests” could be used (Field, 2013, p. 42). Before each test was conducted, the study data were checked as to whether they met the assumptions of the test to be used. It was seen that all the assumptions were met.

The questionnaire, which was designed on a five-point Likert-scale, was given values from 1 to 5. Participants were asked to indicate their use of vocabulary learning strategies as well their perceived usefulness concerning each item. Frequency of use of each strategy was scored as; 1 = never, 2 = seldom, 3 = sometimes, 4 = often, and 5 = very often. And perceived usefulness of each strategy was scored as; 1 = not at all useful, 2 = not very useful, 3 = not sure, 4 = somewhat useful, and 5 = very useful.

For the analysis of the VLSQ (see Appendix 4 and 5) data, a variety of statistical analysis techniques including descriptive statistics (such as mean and standard deviation), *t* test, analysis of variance (ANOVA), and multivariate analysis of variance (MANOVA) were used, and a number of tables and figures were presented (see Chapter IV).

Similarly, data collected through the VLT were analysed with the data analysis methods of descriptive statistics (such as mean and standard deviation), *t* test, analysis of variance, (ANOVA), analysis of covariance (ANCOVA), and multivariate analysis of variance (MANOVA), and presented on a number of tables and figures (see Chapter IV).

3.5. The Role of the Researcher

The researcher was responsible for the preparation of VLSQ and the choice made to use the VLT. Next, the researcher applied for and got the ethical permissions from both the University of Exeter and Dokuz Eylul University before starting the data collection process. Also, it was the researcher's responsibility to collect data from Turkish graduate students studying at a variety of departments in a variety of universities in both the ESL (the UK) and EFL (Turkey) contexts of the study. In addition, the study data were organised and statistically analysed by the researcher. Moreover, the researcher drew conclusions from the statistical analyses' results and these were presented on tables with explanations below them. These results were then discussed by the researcher in light of the literature and suggestions were made for future researchers. That is, the researcher played a significant role in the preparation of this thesis from the very beginning of the study till the end of it.

CHAPTER IV

FINDINGS

This chapter presents the findings obtained through the statistical analyses of related data concerning each of the sub-questions of the research. The findings of the study have been organized as two main sections; findings related to (both the frequency of use and perceptions of usefulness of) vocabulary learning strategies and the ones related to vocabulary levels. Prior to these two sections, some demographic information on the participants in the study has been presented.

4.1. Demographic Information on the Participants in the Study

The distribution of the participants for the quantitative part of the study in terms of their gender, educational level (whether they were master's level or doctorate students), and their academic major (whether they were arts & humanities or science major students) has been provided on Table 3.

Table 3

Distribution of participants in the ESL and EFL contexts according to gender, educational level, and academic major

		UK (ESL) (n=49)	%	Turkey (EFL) (n=79)	%	Overall (n=128)	%
Gender	Female	22	45	48	61	70	55
	Male	27	55	31	39	58	45
Educational Level	Master's	15	31	64	81	79	62
	Doctorate	34	69	15	19	49	38
Academic Major	Arts & Humanities	30	61	53	67	83	65
	Science	19	39	26	33	45	35

Table 3 reveals that 22 of the participants in the ESL context, which constitutes 45%, were females while 27 of them (constituting the remaining 55%) were males. The ratio for the EFL context was 48 females to 31 males, 61% and 39%, respectively. An easy computation of the overall distribution of gender regardless of the contexts where students came from revealed that 70% (55) of all the participants were females while the remaining

58 (45%) were males. The bar chart in Figure 15 clearly shows the distribution of gender across the ESL and EFL contexts.

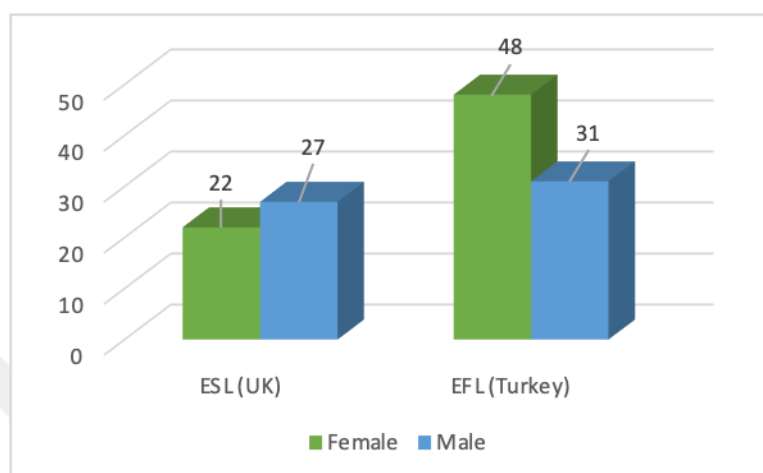


Figure 15. Distribution of the participants across contexts according to gender

The distribution of participants in terms of their educational levels has also been provided on Table 3. Only 31% (15) of the participants in the ESL context were master's level while the remaining 69% (34) were doctorate students. On the other hand, the ratio of the master's level students was 81% (64) in the EFL context with 19% (15) doctorate learners. Regardless of the contexts the participants were from, the ratio of master's level participants to doctorate level ones was 62% (79) to 38% (49). Figure 16 clearly displays the distribution of educational level across the ESL and EFL contexts.

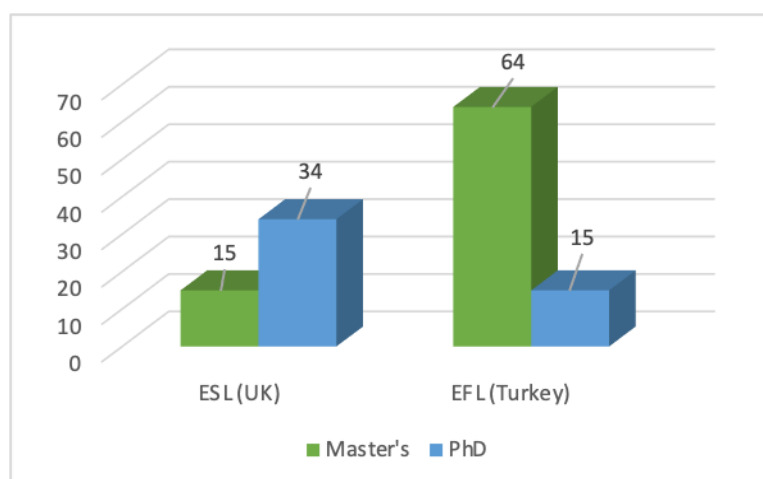


Figure 16. Distribution of the participants across contexts according to educational level

As for the distribution of participants according to their academic majors as shown on Table 3, 61% (30) of the participants from the ESL context were arts & humanities learners while the remaining 39% (19) were science major. On the other hand, the ratio of arts & humanities students to science students in the EFL context has been computed to be 67% (53) to 33% (26). Thus, when the groupings were disregarded, 65% (83) of all the participants were arts and humanities major while the remaining 35% (45) were science major. The distribution of the participants according to academic major can easily be seen on Figure 17.

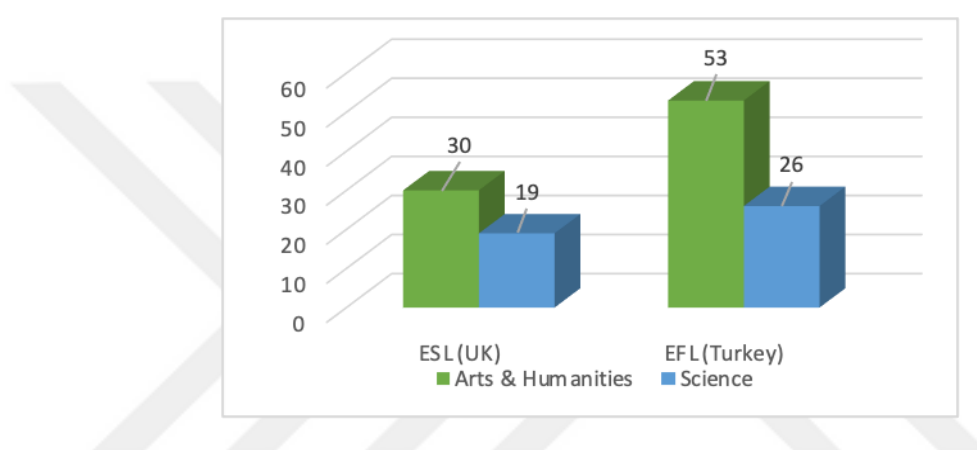


Figure 17. Distribution of the participants across contexts according to academic major

The minimum, maximum, and mean ages of the participants in each of the two contexts has been provided on Table 4 below.

Table 4

Minimum, maximum, and mean ages of the participants in the ESL and EFL contexts

Context	Minimum Age	Maximum Age	Mean Age
UK (ESL) (n=49)	24	45	29
Turkey (EFL) (n=79)	23	43	28

According to Table 4, the age ranking of the participants from the ESL (the UK) context was between 24 and 45 (with a mean age of 29) while the ranking for the EFL (Turkey) context was between 23 and 43 (with a mean age of 28). This shows that the mean ages for each group were almost the same.

Another important point was that the participants in each context came from a variety of universities across the country of context. Accordingly, the participants from the

ESL context; namely, the UK, came from graduate schools of 21 universities with the University of Exeter being the main one. The name of the universities the participants from the ESL context of the study were attending has been given in a descending order on Table 5 according to the number of participants from each of the universities.

Table 5

Distribution of the ESL (the UK) participants according to universities

	University	Frequency	Per cent (%)
1	University of Exeter	23	46.95
2	University of Leicester	3	6.13
3	Northumbria University	2	4.08
4	University of Glasgow	2	4.08
5	University of Liverpool	2	4.08
6	University of Nottingham	2	4.08
7	Brunel University	1	2.04
8	Canterbury Christ Church University	1	2.04
9	Cardiff University	1	2.04
10	London School of Economics	1	2.04
11	Newcastle University	1	2.04
12	Swansea University	1	2.04
13	University of Birmingham	1	2.04
14	University of Bolton	1	2.04
15	University College London	1	2.04
16	University of Essex	1	2.04
17	University of Manchester	1	2.04
18	University of Strathclyde	1	2.04
19	University of Stirling	1	2.04
20	University of Sussex	1	2.04
21	University of Warwick	1	2.04
	Total	49	100

Table 5 indicates that 23 of the 49 participants in the study from the ESL context (which constitutes 46.95% of the participants from this context) attended the University of Exeter. 3 Turkish graduate students attending the University of Leicester took part in the study, constituting 6.13% of the participants from the ESL context. 2 students from each of the Northumbria University, University of Glasgow, University of Liverpool, and University of Nottingham participated in the study, with each university having a share of 4.08% of the ESL context of the study. The remaining universities 15; namely, Brunel University, Canterbury Christ Church University, Cardiff University, London School of Economics, Newcastle University, Swansea University, University of Birmingham, University of Bolton, University College London, University of Essex, University of Manchester, University of Strathclyde, University of Stirling, University of Sussex, and University of Warwick were

each represented by 1 student who took part in the study with a percentage of 2.04 of the whole context each.

Table 6 gives an account of the distribution of the participants from the EFL (Turkey) context according to the universities they were attending, with Dokuz Eylul University being the main one. The number of participants attending each of the 27 universities has been given in a descending order.

Table 6

Distribution of the EFL (Turkey) participants according to universities

	University	Frequency	Per cent (%)
1	Dokuz Eylul University	44	55.70
2	Suleyman Demirel University	3	3.80
3	Anadolu University	2	2.52
4	Ankara University	2	2.52
5	Celal Bayar University	2	2.52
6	Ege University	2	2.52
7	Firat University	2	2.52
8	Middle East Technical University	2	2.52
9	Yuzuncu Yil University	2	2.52
10	Abant Izzet Baysal University	1	1.27
11	Afyon Kocatepe University	1	1.27
12	Ataturk University	1	1.27
13	Bogazici University	1	1.27
14	Dumlupinar University	1	1.27
15	Duzce University	1	1.27
16	Gazi University	1	1.27
17	Giresun University	1	1.27
18	Hacettepe University	1	1.27
19	Harran University	1	1.27
20	Izmir University	1	1.27
21	Karabuk University	1	1.27
22	Karadeniz Technical University	1	1.27
23	Mugla Sitki Kocman University	1	1.27
24	Sakarya University	1	1.27
25	TOBB Economics and Technical University	1	1.27
26	Uludag University	1	1.27
27	Yildirim Beyazit University	1	1.27
	Total	79	100

According to the distribution of the participants from the EFL (Turkey) context of the study, which has been presented on Table 6, 44 of the total 79 participants attended Dokuz Eylul University, constituting 55.70% of the context. Suleyman Demirel University came the second with 3 of its students participating in the study with a percentage of 3.80. Then came Ankara University, Celal Bayar University, Firat University, Ege University, Middle East Technical University, Yuzuncu Yil University and Anadolu University with 2

participants from each, constituting 2.52% of the total number of participants in the context each. 1 student from each of the remaining 18 universities; namely, Abant Izzet Baysal University, Afyon Kocatepe University, Ataturk University, Bogazici University, Dumlupinar University, Duzce University, Gazi University, Giresun University, Hacettepe University, Harran University, Izmir University, Karadeniz Technical University, Karabuk University Mugla Sitki Kocaman University, Sakarya University, TOBB Economics and Technical University, Uludag University, Yildirim Beyazit University, participated in the study with 1.27% share of the whole context each.

4.2. Findings Concerning the Reported Frequency of VLS Use

Data on reported use of VLSs (with its 5 subcategories) were collected from each of the two contexts via VLSQ. The table below shows the mean scores for the average frequency of use of the six subcategories of Vocabulary Learning Strategies, first regardless of context and then across the ESL and EFL contexts separately. Besides, an analysis for the comparison of the two contexts in terms of the frequencies of use of VLSs (the outcomes of a *t* test) has been provided in Table 7.

Table 7

Overall and cross contextual VLS use, and a comparison of VLS use in the two contexts

	Overall (n=128)		UK (n=49)		Turkey (n=79)		UK vs. Turkey		
Strategy type	m	SD	m	SD	m	SD	<i>t</i>	<i>p</i>	<i>r</i>
D-Determination	3.45	.69	3.23	.64	3.58	.68	-2.86	.005*	.25
D-Social	2.91	.94	2.68	.92	3.05	.93	-2.17	.032*	.19
C-Social	2.54	.74	2.44	.65	2.61	.78	-1.28	.204	.11
C-Memory	3.00	.80	2.62	.73	3.23	.76	-4.52	.000*	.37
C-Cognitive	2.78	.95	2.48	.88	2.97	.95	-2.86	.005*	.25
C-Metacognitive	3.26	.97	2.80	.85	3.54	.94	-4.55	.000*	.38
General Average	3.01	.68	2.70	.59	3.19	.66	-4.27	.000*	.36

(* marks statistically significant *p* values, D and C stand for Discovery and Consolidation strategies, respectively)

Table 7 reveals that the most frequently used type of VLS is discovery-determination strategies with an average score of 3.45 while the least frequently used type of VLS is consolidation-social strategies with an average score of 2.54 when the contexts the participants come from were not taken into account.

4.2.1. Sub-questions of the research # 1

a) What strategies are deployed by Turkish ESL learners the UK?

An analysis of the VLS data from the ESL context of the study revealed the VLSs deployed by Turkish ESL learners attending a variety of universities in the UK (Table 7, Columns 4 & 5). According to the reported frequencies of VLS use by Turkish ESL learners attending a variety of universities in the UK, the most frequently used type of VLSs is discovery-determination strategies ($m=3.23$, $SD=.64$) and the least frequently used type is consolidation-social strategies ($m=2.44$, $SD=.65$), both of which are in parallel with the frequencies of use of the overall VLSs. And consolidation - metacognitive ($m=2.80$), discovery-social ($m=2.68$, $SD=.92$), consolidation-memory ($m=2.62$, $SD=.73$), and consolidation-cognitive strategies ($m=2.48$, $SD=.88$) are the second, third, fourth and fifth frequently used types of VLSs by the ESL learners in the UK, respectively, with the average frequency of VLS use being 2.70 ($SD=.59$).

b) What strategies are deployed by EFL learners in Turkey?

As for the frequencies of VLSs deployed by Turkish EFL learners attending a variety of universities in Turkey (Table 7, Columns 6 & 7), the most frequently used type of VLSs is discovery-determination strategies ($m=3.58$, $SD=.68$), and the least frequently used type is consolidation-social strategies ($m=2.61$, $SD=.78$), which is in parallel with the overall and the UK averages. And consolidation-metacognitive ($m=3.54$, $SD=.94$), consolidation-memory ($m=3.23$, $SD=.76$), discovery-social ($m=3.05$, $SD=.93$), and consolidation-cognitive strategies ($m=2.97$, $SD=.95$) are the second, third, fourth and fifth frequently used types of VLSs by the EFL learners in Turkey respectively with the average frequency of VLS use being 3.19 ($SD=.66$), which is higher than the UK average.

c) Is there a significant difference between the vocabulary learning strategies deployed by Turkish ESL learners in the UK and EFL learners in Turkey?

Having looked at the overall frequencies of VLS use in the two contexts one by one, the question to answer next was whether there was a statistically significant difference between the VLSs deployed by Turkish ESL learners in the UK and EFL learners in Turkey. A *t* test for independent samples was carried out to find an answer to this question as provided in columns 8 & 9 of Table 7. Also, effect size (*r*), which can be defined as “an objective and standardized measure of the magnitude of the observed effect” (Field, 2013, p.

56), was calculated for each of the sub-categories of VLSs as well as the general average and presented in the last column of Table 7.

The table reveals that a comparison between the two groups of participants (ESL and EFL contexts; the UK and Turkey respectively) yields insignificant difference between the two groups in the frequency use of consolidation-social strategies ($p=.204$) [$t(126)=-1.28$, $p>0,05$] while the two groups are significantly different from each other (in favour of the EFL group) in the frequency of use of discovery-determination ($p=.005$) [$t(126)=-2.86$, $p<0,05$], discovery-social ($p=.032$) [$t(126)=-2.17$, $p<0,05$], consolidation-memory ($p=.000$) [$t(126)=-4.52$, $p<0,05$], consolidation-cognitive ($p=.005$) [$t(126)=-2.86$, $p<0,05$], and consolidation-metacognitive ($p=.000$) [$t(126)=-4.55$, $p<0,05$] types of VLSs as well as the frequency of use of overall VLSs ($p=.000$) [$t(126)=-4.27$, $p<0,05$].

Also, the effect sizes for the differences were calculated. Generally, an effect size of .10 is accepted as 'small' (the effect explaining 1%) while an effect of .30 as 'medium' (the effect explaining 9%), and an effect of .50 as 'large' (the effect accounting for 25% of the total variances) (Cohen 1988, 1992 cited in Field, 2013). A calculation of the effect sizes for the significant differences indicated a small sized effect ($r=.25$) for discovery-determination strategies, discovery-social strategies ($r=.19$) and consolidation-cognitive strategies ($r=.25$), a medium sized effect ($r=.37$) for consolidation-memory strategies, with a medium sized effect ($r=.36$) for frequency of use of overall VLSs.

To make an easier comparison of the reported frequencies of VLSs used by Turkish ESL learners in the UK and EFL learners in Turkey, a dual bar chart has been provided (see Figure 18).

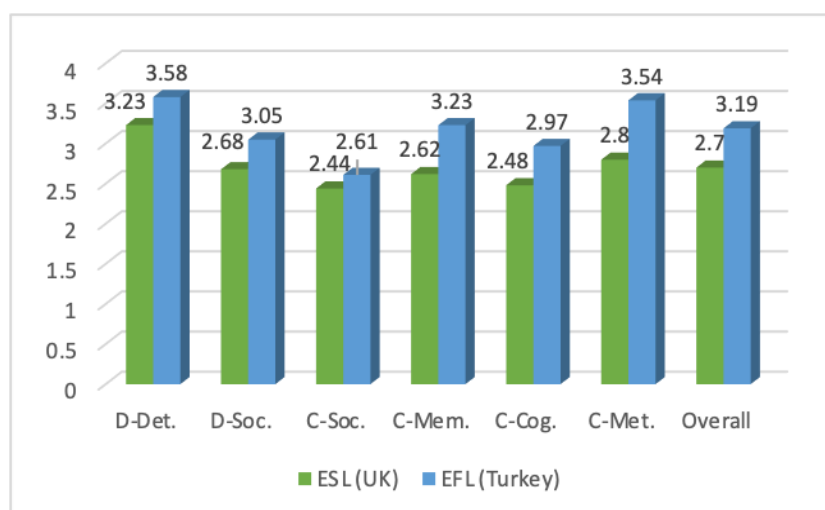


Figure 18. VLS use across the ESL and EFL contexts

As shown in Figure 18, there are some differences between the average frequencies of use of the six types of VLS and average frequencies of use of overall VLSs by Turkish ESL learners in the UK and EFL learners in Turkey. When the size of the differences are considered, the biggest difference between the ESL and EFL groups is consolidation-metacognitive strategies (.74), the second biggest in consolidation-memory (.61), the third biggest in consolidation-cognitive (.49), the fourth biggest in discovery-social (.37) and the fifth biggest in discovery-determination strategies (all being statistically significant according to the *t* test provided on Table 7). The smallest difference between the two contexts lies in consolidation-social strategies (.17) (which has been found to be insignificant). Besides, the difference between the frequencies of use of overall VLSs in the two contexts is .49, which also has been found to be statistically significant as shown on Table 7.

An account of the distribution of average frequencies of reported use of the six sub-categories and general average of VLSs according to gender without paying any attention to which of the two language learning contexts students come from, has been provided on Table 8.

Table 8

VLS use across the two gender groups, and a comparison of VLS use by the two genders

Overall (n=128)							
Strategy type	Female (n=70)		Male (n=58)		Female vs. Male		
	Mean	SD	Mean	SD	<i>t</i>	<i>p</i>	<i>r</i>
D-Determination	3.53	.60	3.35	.77	1.53	.127	.14
D-Social	2.96	.96	2.84	.92	.73	.470	.06
C-Social	2.52	.76	2.57	.72	-.42	.675	.04
C-Memory	3.07	.72	2.91	.89	1.10	.276	.10
C-Cognitive	2.88	.94	2.67	.95	1.23	.221	.10
C-Metacognitive	3.35	.99	3.14	.95	1.21	.228	.10
General Average	3.07	.64	2.92	.72	1.24	.218	.10

(* marks statistically significant *p* values, D and C stand for Discovery and Consolidation strategies, respectively)

An analysis of the rankings of frequency of use of VLSs across genders revealed (as shown on Table 8) that the rankings of the frequency of use of VLS categories are the same for females and males yet with different mean scores for each gender group. The most frequently used type of VLS by female and male participants in the study is discovery-determination strategies with the average frequencies of 3.53 (SD=.60) and 3.35 (SD=.77),

respectively. The second most frequently used type of VLSs is consolidation-metacognitive strategies, with a mean score of 3.35 (SD=.99) for female and 3.14 (SD=.95) for male participants. consolidation-metacognitive strategies came the third with a frequency of 3.07 for female and 2.91 for male participants. Discovery-social strategies are the fourth, and consolidation-cognitive strategies are the fifth most frequently used VLS categories with the means of 2.96 (SD=.96) and 2.88 (SD=.94) for females, and 2.84 (SD=.92) and 2.67 (SD=.95) for males, respectively. consolidation-social strategies are the least frequently used type of VLSs by both females ($m=2.88$, $SD=.94$) and males ($m=2.57$, $SD=.72$).

A t test was conducted to see if the difference between female and male participants in the frequency of use of VLSs was statistically significant. The results revealed that the difference between female and male participants was not significant ($p>.05$) in any of the five categories of VLSs. However, the effect sizes indicated a small sized effect for all but two strategy categories.

As for the distribution of average frequencies of reported use of the six sub-categories and general average of VLSs according to gender in each of the two language learning contexts; namely, ESL and EFL, Table 9 aims to give an account of this.

Table 9

VLS use by the two gender groups in the ESL and EFL contexts

Strategy type	UK (n=49)				Turkey (n=79)			
	Female (n=22)		Male (n=27)		Female (n=48)		Male (n=31)	
	m	SD	M	SD	m	SD	m	SD
D-Determination	3.33	.54	3.16	.72	3.63	.61	3.51	.79
D-Social	2.48	.88	2.84	.94	3.18	.92	2.84	.93
C-Social	2.41	.67	2.46	.65	2.57	.80	2.67	.77
C-Memory	2.76	.70	2.51	.74	3.21	.69	3.27	.87
C-Cognitive	2.52	.89	2.46	.90	3.04	.94	2.85	.97
C-Metacognitive	2.85	.88	2.75	.84	3.58	.96	3.48	.91
General Average	2.76	.56	2.65	.62	3.21	.63	3.16	.73

(D and C stand for Discovery and Consolidation strategies, respectively)

4.2.2. Sub-questions of the research # 2

a) *What VLSs are deployed by female learners in each of the ESL and EFL contexts?*

Table 9 (columns 2-3 & 6-7) clearly shows that the most frequently used type of VLS by the female learners in the ESL context (the UK) is discovery-determination Strategies with an average of 3.33 (SD=.54), which is also the most frequently used type of

strategy by the female learners in the EFL context (Turkey) with an average of 3.51 (SD=.79). Consolidation-metacognitive strategies are the second most frequently used type of VLS in both the ESL (2.85, SD=.88) and EFL contexts (3.58, SD=.96). Female participants in the ESL (2.76, SD=.70) and EFL contexts (3.21, SD=.69) used consolidation-memory strategies the third most frequently. The fourth and fifth most frequently used VLS categories in the ESL context by females were consolidation-cognitive (2.52, SD=.89) and discovery-social strategies (2.48, SD=.88), respectively. On the other hand, female participants in the EFL context used these two strategy categories in the reversed ranking; discovery-social strategies (3.18, SD=.92) as the fourth, and consolidation-cognitive strategies (3.04, SD=.94) as the fifth. The least frequently used type of VLS is consolidation-social strategies both in the ESL and EFL contexts with mean scores of 2.41 (SD=.67) and 3.57 (SD=.80) respectively. The general average frequency of VLSs by female learners in the ESL context is represented by the score 2.76 (SD=.56) and 3.21 (SD=.63) in the EFL context.

b) What VLSs are deployed by male learners in each of the ESL and EFL contexts?

Table 9 (columns 4-5 & 8-9) clearly shows that the most frequently used type of VLS by the male learners, discovery-determination strategies, is shared in the ESL and EFL contexts with the averages of 3.16 (SD=.72) and 3.51 (SD=.79), respectively. In the ESL context, discovery-social (2.84, SD=.94), consolidation-metacognitive (2.75, SD=.84) and consolidation-memory strategies (2.51, SD=.74) are the second, third and fourth most frequently used type of VLSs. In the EFL context, similarly, the order of the frequency of use of the six types of VLSs by males is different from females' in the same context. Consolidation-metacognitive (3.48, SD=.91), consolidation-memory (3.27, SD=.87), consolidation-cognitive (2.85, SD=.97) and discovery-social (2.84, SD=.93) are the second, third, fourth and fifth most frequently used type of VLSs, respectively. The least frequently used type of VLSs by male learners are consolidation-social (SD=.65) and consolidation-cognitive strategies (SD=.90) with a shared average of 2.46 in the ESL context. Similarly, consolidation-social strategies are the least frequently used strategy group in the EFL context with a mean score of 2.67 (SD=.77). The general average frequency of VLSs by male learners in the ESL context is represented by the score 2.65 (SD=.62) and 3.16 (SD=.73) in the EFL context.

c) *Is there a significant difference between the ESL and EFL contexts in terms of the VLSs deployed by female and male learners?*

In order to see if there was a significant relationship between the frequencies of VLS use on one hand and gender and context on the other, a Multivariate Analysis of Variances (MANOVA) test was carried out. Wilks' Lambda values were taken into account. The results have been presented in Table 10.

Table 10

The interaction between context and gender regarding VLS use

Effect	Value	F	p	η^2
Context	.797	5.136	.000*	.206
Gender	.961	.800	.570	.039
Context * Gender	.900	2.209	.047*	.100

(* marks statistically significant p values)

The MANOVA test carried out to see the effects of context and gender on the frequency of use of VLSs on Table 10 revealed a significant univariate main effect of 'context', Wilks' Lambda = .797, $F(3,119) = 5.136$, $p < 0.05$; but not a significant univariate main effect for 'gender', Wilks' Lambda = .961, $F(6,119) = 800$, $p > 0.05$. However, multivariate main effect for 'context and gender' together was found to be significant, Wilks' Lambda = .900, $F(6,119) = 2.209$, $p < 0.05$. In other words, there was a statistically significant difference between the participants in the UK (ESL) and in Turkey (EFL) in the frequency of VLS use, which is already evident on Table 7. On the other hand, there was no statistically significant difference between the male and female participants in the study in the frequency of VLS use. However, when context and gender were assessed together, a statistically significant difference among participants was found. This means, the difference (in VLS use) between female and male participants is different in the UK from the way it is in Turkey; and the other way round, the difference (in VLS use) between the UK and Turkey is different for females from the way it is for males. In addition, partial eta squared (η^2) values (effect sizes) were calculated to be .206 for context, .039 for gender, and .100 (out of 1) for context and gender together.

Figure 19 aims to provide a graph of the interaction between the factors of gender and language context to make it easier to understand what the MANOVA test means.

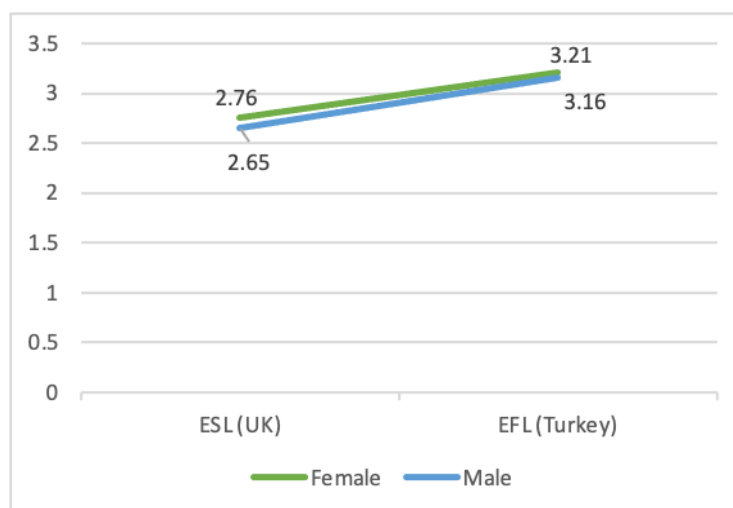


Figure 19. The interaction between gender and context in terms of their relationship with VLS use

Figure 19 gives a clearer presentation of what the MANOVA test on Table 10 means. With its vertical axis representing the frequency of use of VLSs and the horizontal axis representing the context students come from (ESL vs. EFL), Figure 4.5 indicates that there is an effect of gender (because the women are higher than the men) and of context (because the average frequency of VLS use is higher in Turkey than it is in the UK. However, the graph on Figure 4.5 also illustrates that there is a lack of interaction between the effects of gender and contexts on the frequency of use of VLSs. This means, the effect of context is similar for males and females.

An account of the distribution of average frequencies regarding the reported use of the six sub-categories and general average VLS use by the members of the two academic majors (irrespective of the language learning contexts students come from) has been provided on Table 11.

Table 11

VLS use by arts & humanities and science major learners, and a comparison of VLS use by the two academic major groups

Overall (n=128)							
		Arts & Humanities (n=83)		Science (n=45)		Arts & Humanities vs. Science	
Strategy type	Mean	SD	Mean	SD	<i>t</i>	<i>p</i>	<i>r</i>
D-Determination	3.46	.66	3.43	.75	.261	.795	.02
D-Social	2.89	.89	2.94	1.05	-.264	.792	.02
C-Social	2.59	.74	2.45	.73	1.004	.317	.09
C-Memory	3.03	.82	2.94	.78	.604	.547	.05
C-Cognitive	2.89	.94	2.57	.93	1.851	.067	.16
C-Metacognitive	3.32	.98	3.14	.95	1.004	.317	.09
General Average	3.04	.67	2.93	.69	.889	.376	.08

(* marks statistically significant *p* values, D and C stand for Discovery and Consolidation strategies, respectively)

An analysis of the rankings of frequency of use of VLSs across majors revealed (as shown on Table 11) that although the means show a difference, the rankings for the frequency of use of the six types of VLSs by arts & humanities and science major participants were identical.

A *t* test was conducted to see if the difference between arts & humanities and science major participants in the frequency VLS use was statistically significant. The results revealed that the difference between arts & humanities and science major participants was not significant ($p < .05$) in any of the six categories of VLSs. However, it did represent a small sized effect ($r > .10$) for consolidation-cognitive strategies. The difference between arts & humanities and science major participants in terms of their frequencies of use of VLSs in general was not either statistically significant ($p > .05$).

As for the distribution of average frequencies of reported use of the six sub-categories and general average of VLSs according to academic major in each of the two language learning contexts; namely, ESL and EFL, Table 12 aims to give an account of this.

Table 12

VLS use by arts & humanities and science major learners in the ESL and EFL contexts

Strategy type	UK (n=49)				Turkey (n=79)			
	Arts & Humanities (n=30)		Science (n=19)		Arts & Humanities (n=53)		Science (n=26)	
	m	SD	m	SD	m	SD	m	SD
D-Determination	3.06	.60	3.51	.63	3.69	.58	3.37	.83
D-Social	2.46	.65	3.03	1.16	3.14	.92	2.87	.97
C-Social	2.39	.61	2.52	.72	2.71	.79	2.41	.75
C-Memory	2.49	.68	2.82	.77	3.34	.73	3.03	.79
C-Cognitive	2.56	.84	2.36	.95	3.08	.96	2.73	.90
C-Metacognitive	2.77	.87	2.84	.84	3.64	.91	3.36	.98
General Average	2.60	.51	2.86	.69	3.30	.63	2.99	.70

(D and C stand for Discovery and Consolidation strategies, respectively)

4.2.3. Sub-questions of the research # 3

a) *What strategies are deployed by arts and humanities major students in each of the ESL and EFL contexts?*

Table 12 (columns 2-3 & 6-7) clearly shows that the most frequently used type of VLS by the art & humanities major learners in the ESL context is discovery-determination strategies with an average of 3.06 (SD=.60), which is also the most frequently used type of strategy by the learners of the same major in the EFL context with an average of 3.69 (SD=.58). Consolidation-metacognitive strategies are the second most frequently used strategy group in both the ESL (2.77, SD=.87) and EFL (3.64, SD=.91) contexts. In the ESL context, consolidation-cognitive (2.56, SD=.84), consolidation-memory (2.49, SD=.68) and discovery - social (2.39, SD=.61) are the third, fourth and fifth most frequently used type of VLSs by arts & humanities major learners respectively. In the EFL context, on the other hand, consolidation-memory (3.34, SD=.73), discovery-social (3.14, SD=.92) and consolidation-cognitive strategies (3.08, SD=.96) are the third, fourth and fifth most frequently used kind of VLSs. The least frequently used type of VLS is consolidation-social strategies by arts & humanities major learners in both the ESL and EFL contexts with mean scores of 2.39 (SD=.61) and 2.71 (SD=.79), respectively. The general average frequencies of VLSs by arts & humanities majors in the ESL context are represented by the scores of 2.60 (SD=.51) and 3.30 (SD=.63) in the EFL context (with the EFL mean scores for the same major groups are higher than the ESL means cores).

b) What strategies are deployed by science major students in each of the ESL and EFL contexts?

Table 12 (columns 4-5 & 8-9) clearly shows that the most frequently used type of VLS by the science major learners in the ESL context is discovery-determination strategies with an average of 3.51 (SD=.63), which is also the most frequently used type of strategy by the learners of the same major in the EFL context with an average of 3.37 (SD=.83). In the ESL context, discovery-social (3.03, SD=1.16), consolidation-metacognitive (2.84, SD=.84), consolidation-memory (2.82, SD=.77) and consolidation-social strategies (2.52, SD=.72) are the second, third, fourth and fifth most frequently used type of VLSs by science major learners respectively. In the EFL context, however, the ranking is different. The second, third, fourth and fifth most frequently used type of VLSs by science major learners in this context are consolidation-metacognitive (3.36, SD=.98), consolidation-memory (2.73, SD=.90), discovery-social (2.87, SD=.97) and consolidation-cognitive strategies (2.73, SD=.90), respectively. The least frequently used kind of VLS by science major learners is Consolidation-Cognitive Strategies in the ESL (2.36, SD=.95) and consolidation-social strategies in the EFL context (2.41, SD=.75). The general average frequencies of the use of VLSs by science majors in the ESL context are represented by the scores of 2.86 (SD=.69) and 2.99 (SD=.70) in the EFL context.

Despite the differences in the rankings of the strategies used by the two majors in the two different contexts, it is striking that discovery-determination strategies are the most frequently used ones in both contexts by both academic major groups. Another striking finding is that while science major learners in the ESL context have higher mean scores (for five out of the six VLS categories) than their arts & humanities major, in the EFL context arts & humanities majors have higher mean scores than their science major counterparts.

c) Is there a significant relationship between the VLSs deployed by the learners and their major in each of the ESL and EFL contexts?

In order to see if there was a significant relationship between the frequency of VLS use and academic major and context, a Multivariate Analysis of Variances (MANOVA) test was carried out. Wilks' Lambda values were taken into account. The results have been presented in Table 13.

Table 13

The interaction between context and academic major regarding VLS use

Effect	Value	F	p	η^2
Context	.814	4.537	.000*	.186
Academic Major	.952	.995	.432	.048
Context * Academic Major	.917	1.801	.105	.083

(* marks statistically significant p values)

The MANOVA test carried out to see the effects of context and academic major on the frequency of use of VLSs on Table 13 revealed a significant multivariate main effect of ‘context’, Wilks’ Lambda = .814, $F(6,119) = 4.537$, $p < 0.05$, $\eta^2 = .186$; but not a significant main effect for ‘academic major’, Wilks’ Lambda = .952, $F(6,119) = .995$, $p > 0.05$, $\eta^2 = .048$. The main effect for ‘context and academic major’ together, on the other hand, was not significant, Wilks’ Lambda = .917, $F(6,119) = 1.801$, $p > 0.05$, $\eta^2 = .083$. In other words, there was a statistically significant difference between the participants in the UK (ESL) and in Turkey (EFL) in the frequency of VLS use, as already shown on Table 7. However, there was no statistically significant difference between arts & humanities majors and science majors in the frequency of VLS use, as also already clear on Table 12. When context and academic major were assessed together, no statistically significant difference among participants was found. This means, the difference (in VLS use) between arts & humanities majors and science majors is the same in the UK as it is in Turkey; and the other way round, the difference between the UK and Turkey is the same for arts & humanities majors as it is for science majors.

Figure 20 aims to provide a graph of the interaction between the factors of academic major and language context to make it easier to understand what the MANOVA test means.

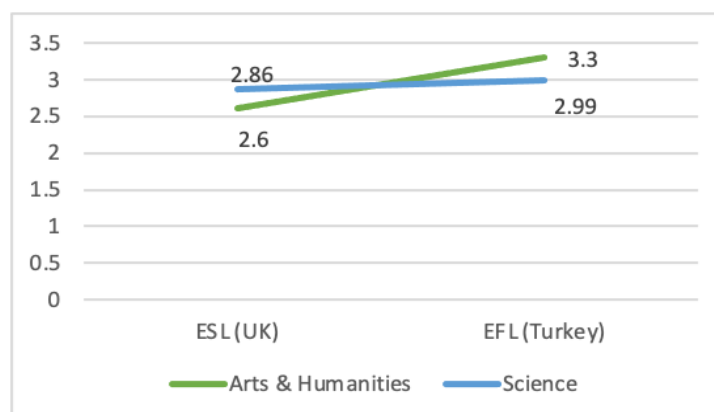


Figure 20. The interaction between academic major and context in terms of their relationship with VLS use

Figure 20 gives a clearer presentation of what the MANOVA test on Table 13 means. With its vertical axis representing the frequency of use of VLSs and the horizontal axis representing the context students come from (ESL vs. EFL), Figure 4.6 indicates that there is an effect of context but not of academic major, and that there is a lack of interaction between the effects of context and academic major on the frequency of VLS use. This means, the effect of context on Arts & Humanities majors and Science majors is similar.

4.3. Findings Concerning the Perceived Usefulness of VLSs

An analysis of the data on perceived VLS usefulness (with its 5 subcategories) collected from each of the two contexts via VLSQ revealed the mean scores for the perceived usefulness of the five subcategories of Vocabulary Learning Strategies first regardless of context and then across the ESL and EFL contexts separately. Besides, an analysis for the comparison of the two contexts in terms of the perceived VLS usefulness has been provided in Table 14.

Table 14

Perceptions of VLS usefulness across the ESL and EFL contexts, and a comparison of VLS usefulness perceptions in the two contexts

	Overall (n=128)		UK (n=49)		Turkey (n=79)		UK vs. Turkey		
Strategy type	m	SD	m	SD	m	SD	<i>t</i>	<i>p</i>	<i>r</i>
D-Determination	3.76	.66	3.53	.53	3.90	.69	-3.222	.002*	.28
D-Social	3.48	.93	3.31	.99	3.59	.88	-1.677	.096	.15
C-Social	3.53	.84	3.25	.86	3.70	.79	-3.054	.003*	.26
C-Memory	3.63	.80	3.30	.81	3.83	.73	-3.843	.000*	.32
C-Cognitive	3.48	.96	3.08	.99	3.73	.86	-3.945	.000*	.33
C-Metacognitive	3.97	.87	3.71	.90	4.14	.81	-2.788	.006*	.24
General Average	3.62	.71	3.32	.69	3.81	.67	-3.955	.000*	.33

(* marks statistically significant *p* values, D and C stand for Discovery and Consolidation strategies, respectively)

Table 14 reveals (in column 2 & 3) that when no distinction is made between the two groups, the type of VLS that is perceived to be the most useful is consolidation-metacognitive strategies with an average score of 3.97 (SD=.87) while determination-social and consolidation-cognitive strategies became the strategies that were thought to be the least useful with a shared average score of 3.48 (SD=.93) (regardless of the groups). discovery-determination (m=3.76, SD=.66), consolidation-memory (m=3.63, SD=.80), and consolidation-social strategies (m=3.53, SD=.84) are second, third, and fourth most useful types of VLSs, respectively, according to students' perceptions.

It is surprising that, although the strategy group that is perceived as the most useful by students (regardless of the contexts they come from) is consolidation-metacognitive strategies, the strategy group they choose to use the most frequently is discovery-determination strategies. Similarly, the type of VLSs that is thought to be the least useful (determination-social and consolidation-metacognitive str.) is not in parallel with the type that is reported to be used the least frequently, either (consolidation-social str.) (see Table 7).

4.3.1. Sub-questions of the research # 4

a) What strategies do Turkish ESL learners in the UK find the most useful?

As shown in Table 14 (columns 4 & 5), the type of VLS perceived to be the most useful by Turkish ESL learners in the UK is consolidation-metacognitive strategies ($m=3.71$, $SD=.90$) while the one found the least useful is consolidation-cognitive strategies ($m=3.08$, $SD=.99$). However, the strategies reported to be the most (discovery-determination str.) and the least frequently used (consolidation-social str.) by the same of students are not in parallel with these findings (see Table 7). discovery-determination ($m=3.53$, $SD=.53$), discovery-social ($m=3.31$, $SD=.$), consolidation-memory ($m=3.30$, $SD=.81$), and consolidation-social strategies ($m=3.25$, $SD=.86$) are respectively the second, third, fourth and fifth most useful types of VLSs according to the ESL learners in the UK with the average usefulness of overall VLS use being 3.32 ($SD=.69$).

b) What strategies do EFL learners in Turkey find the most useful?

As for the perceptions of usefulness of VLSs by EFL learners attending a variety of universities in Turkey, columns 6 & 7 on Table 14 attempt to give an account of the case for the EFL context.

The table indicates that the type of VLS perceived as the most useful by the EFL learners in Turkey is consolidation-metacognitive strategies ($m=4.14$, $SD=.81$), which is also the VLS category perceived as the most useful by the learners in the ESL context. The VLS category that is thought to be the least useful is discovery-social strategies ($m=3.59$, $SD=.88$). A comparison of these findings with the frequency of VLS use of the same group of students reveals that the findings concerning neither the most (discovery-determination str.) nor the least frequently used type of VLS (consolidation-social str.) are in parallel with the ones perceived by EFL learners to be the most (Consolidation-Metacognitive) and the least useful VLSs (discovery-social str.) (See Table 7). As for the second, third, fourth and fifth most useful types of VLSs according to the EFL learners in Turkey, these are discovery-determination ($m=3.90$, $SD=.69$), consolidation-memory ($m=3.83$, $SD=.73$),

consolidation-cognitive ($m=3.73$, $SD=.86$), and consolidation-social strategies ($m=3.70$, $SD=.79$), respectively, with the average usefulness of overall VLS use being 3.81 ($SD=.67$), which is higher than the UK average.

c) Is there a significant difference between the VLSs that are found the most useful by Turkish ESL learners in the UK and EFL learners in Turkey?

Having looked at the perceptions of usefulness of each of the six types of VLSs and overall VLSs in two different contexts one by one, the question whether there is a significant difference between the perceptions of VLS usefulness by Turkish ESL learners in the UK and EFL learners in Turkey still needs to be answered.

A t-test for independent samples was carried out to find an answer to this question as provided in columns 8 & 9 of Table 14. The table reveals the two contexts are significantly different from each other in terms of the perceptions of usefulness of all strategy categories but Discovery-Social [$t(126)=.096$, $p>0,05$] as well as the perceptions of usefulness of overall VLSs [$t(126)=.000$, $p<0,05$]. That is, the difference between the ESL and EFL contexts were significant in terms of the perceptions of usefulness of discovery-determination [$t(126)=.002$, $p<0,05$], consolidation-social [$t(126)=.003$, $p<0,05$], consolidation-memory [$t(126)=.000$, $p<0,05$], consolidation-cognitive [$t(126)=.000$, $p<0,05$], and consolidation-metacognitive strategies [$t(126)=.006$, $p<0,05$]. A calculation of the effect sizes for the significant differences indicated a small sized effect for discovery-determination ($r=.28$), consolidation-social ($r=.26$), and consolidation-metacognitive strategies ($r=.24$), and a medium sized effect for consolidation-memory ($r=.32$) and consolidation-cognitive strategies ($r=.33$) with a medium sized effect ($r=.33$) for perceptions of usefulness of overall VLSs.

Also, the types of strategies that are statistically significantly different in terms of the perceived usefulness in two contexts (discovery-determination, consolidation-social, consolidation-memory, consolidation-cognitive and consolidation-metacognitive strategies and overall VLSs) and the one that is not statistically significantly different in the two contexts (discovery-social strategies) are partly in parallel with the significance findings in terms of frequency of use on Table 7, where all but consolidation-social strategies as well as the overall VLSs were used at significantly different frequencies in the two contexts. The direction of the difference is also the same.

Below is a dual bar chart to be able to make an easier comparison of the perceived usefulness of VLSs used by Turkish ESL learners in the UK and EFL learners in Turkey (see Figure 21).

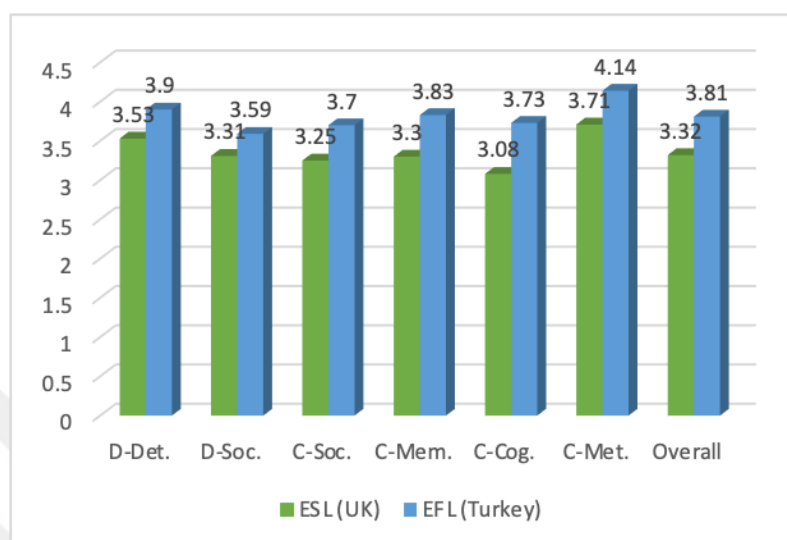


Figure 21. Perceptions of VLS usefulness in the ESL and EFL contexts

Figure 21 shows the perceptions of Turkish ESL learners attending a variety of universities in the UK and EFL learners attending a variety of universities in Turkey on the usefulness of VLSs organised in six categories according to the categorisation by the researcher.

Figure 21 clearly shows that there are some differences between the average perceptions of usefulness of the five types of VLS and average perceptions of usefulness of overall VLSs by Turkish ESL learners in the UK and EFL learners in Turkey. When the sizes of the differences are considered, the biggest difference between the ESL and EFL groups lies in consolidation-cognitive strategies (.65), the second biggest in consolidation-memory (.53), the third biggest in consolidation-social (.45), the fourth biggest in consolidation-metacognitive (.43), and the fifth biggest in discovery-determination strategies (all being statistically significant according to the t test provided on Table 14). The smallest difference between the two contexts lies in discovery-social strategies (.28), which is not statistically significant. Besides, the difference between the perceived usefulness of overall VLSs in the two contexts is .49, which also has been found to be statistically significant on Table 14. This is exactly the same as the difference between the frequencies of use of overall VLSs in the two contexts on Table 7, which is also statistically significant.

An account of the distribution of average perceptions of usefulness regarding the six sub-categories and general average of VLSs according to gender without paying any attention to which of the two language learning contexts students come from, has been provided on Table 15.

Table 15

Perceptions of VLS usefulness by female and male learners, and a comparison of VLS usefulness perceptions by the two gender groups

Strategy type	Overall (n=128)				Female vs. Male		
	Female (n=70)		Male (n=58)				
	Mean	SD	Mean	SD	<i>t</i>	<i>p</i>	<i>r</i>
D-Determination	3.88	.60	3.61	.71	2.403	.018*	.21
D-Social	3.53	.92	3.43	.95	.626	.532	.06
C-Social	3.64	.84	3.39	.82	1.709	.090	.15
C-Memory	3.70	.79	3.54	.80	1.089	.278	.10
C-Cognitive	3.62	.98	3.31	.92	1.805	.073	.16
C-Metacognitive	4.13	.84	3.78	.86	2.368	.019*	.21
General Average	3.72	.71	3.51	.70	1.691	.093	.15

(* marks statistically significant *p* values, D and C stand for Discovery and Consolidation strategies, respectively)

An analysis of the rankings of perceptions of usefulness of VLSs across genders (as shown on Table 15) revealed that the type of VLSs perceived as the most useful, consolidation-metacognitive strategies, is shared by female and male participants in the study with the average frequencies of 4.13 (SD=.84) and 3.78 (SD=.86), respectively. The second and third most frequently used VLS sub-categories, which are discovery-determination ($m=3.88$, $SD=.60$; 3.61 , $SD=.71$) and consolidation-memory strategies ($m=3.70$, $SD=.79$; 3.54 , $SD=.80$) are also shared by female and male participants, respectively. Consolidation-social ($m=3.64$, $SD=.84$) and consolidation-cognitive strategies ($m=3.62$, $SD=.98$) came the fourth and fifth in the usefulness ranking for female participants. Male participants, on the other hand, perceived discovery-social strategies as the fourth and consolidation-social strategies as the fifth most useful VLSs with the mean scores of 3.43 ($SD=.95$) and 3.39 ($SD=.82$), respectively. While the strategy group perceived as the least useful by female participants is discovery-social ($m=3.53$), it is consolidation-cognitive ($m=3.31$) for their male counterparts with a shared standard deviation of .92. It is clear from the table that although the means show a difference the rankings of perceived usefulness of different types of VLSs are quite similar.

A *t* test was conducted to see if the difference between female and male participants' VLS usefulness perceptions was statistically significant or not. The results revealed that the difference between female and male participants was significant ($p < .05$) in favour of females in two of the six categories of VLSs, them being discovery-determination and consolidation-metacognitive strategies with the effect sizes indicating a small sized effect (both $r = .21$). The analysis revealed that the difference between the two gender groups in their perceptions of the usefulness of the remaining four categories of VLSs; namely, discovery-social, consolidation-social, consolidation-memory, and consolidation-cognitive was not statistically significant.

As for the perceptions of female and male learners on the usefulness of these six subcategories of VLSs in the two contexts of the study; namely, ESL and EFL, Table 16 below aims to provide some descriptive data about this.

Table 16

Perceptions of VLS usefulness by female and male learners in the ESL and EFL contexts

Strategy type	UK (n=49)				Turkey (n=79)			
	Female (n=22)		Male (n=27)		Female (n=48)		Male (n=31)	
	m	SD	m	SD	m	SD	m	SD
D-Determination	3.54	.50	3.52	.57	4.04	.57	3.68	.81
D-Social	3.06	.94	3.51	1.00	3.75	.84	3.35	.92
C-Social	3.15	.84	3.33	.88	3.87	.75	3.45	.78
C-Memory	3.22	.83	3.37	.80	3.92	.68	3.70	.79
C-Cognitive	2.98	1.02	3.16	.98	3.91	.82	3.45	.85
C-Metacognitive	3.70	1.05	3.72	.77	4.33	.65	3.83	.94
General Average	3.24	.71	3.39	.68	3.94	.61	3.61	.72

(D and C stand for Discovery and Consolidation strategies, respectively)

4.3.2. Sub-questions of the research # 5

a) *What VLSs are found to be the most useful by female learners in each of the ESL and EFL contexts?*

Table 16 (columns 2-3 & 6-7) clearly shows that the type of VLS perceived as the most useful by the female learners in both the ESL and EFL contexts is consolidation-metacognitive strategies, with the average scores of 3.70 (SD=1.15) and 4.33 (SD=.65) respectively. The second and third most useful strategy groups in the ESL context, discovery-determination (3.54, SD=.50) and consolidation-memory (3.22, SD=.83) also have the same usefulness rankings as perceived by the female participants in the EFL context with the values of 3.52 (SD=.57) and 3.37 (SD=.80), respectively. In the ESL context,

consolidation-memory (3.22, SD=.83), consolidation-social (3.15, SD=.84) and discovery-social strategies (3.06, SD=.94) are the third, fourth and fifth most useful type of VLSs as perceived by females, respectively. In the EFL context, on the other hand, consolidation-memory (3.92, SD=.68), consolidation-cognitive (3.91, SD=.82) and consolidation-social strategies (3.87, SD=.75) are the third, fourth and fifth most useful type of VLSs (again as perceived by females). While the type of VLSs perceived as the least useful in the ESL context is consolidation-cognitive strategies (2.98, SD=1.02), it is discovery-social strategies (3.75, SD=.84) in the EFL context. The perceptions of usefulness of general VLSs by female learners in the ESL context is represented by the score 3.24 (SD=.71) and 3.94 (SD=.61) in the EFL context.

b) What VLSs are found to be the most useful by male learners in each of the ESL and EFL contexts?

Table 16 (columns 4-5 & 8-9) clearly shows that the type of VLS perceived as the most useful by the male learners in both the ESL and EFL contexts is again consolidation-metacognitive strategies, with the average scores of 3.72 (SD=.77) and 3.83 (SD=.94) respectively. This finding is in parallel with the most useful VLS category as perceived by female participants in both contexts. In the ESL context, discovery-determination (3.52, SD=.57), discovery-social (3.51, SD=1), consolidation-memory (3.37, SD=.80) and consolidation-social strategies (3.33, SD=.88) are the second, third, fourth and fifth most useful type of VLSs as perceived by male participants, respectively. In the EFL context, on the other hand, consolidation-memory (3.70, SD=.79) and discovery-determination strategies (3.68, SD=.81) are the second and third most useful type of VLSs (again as perceived by males). The fourth ranking is shared by consolidation-social (3.45, SD=.78) and consolidation-cognitive strategies (3.45, SD=.85) (as perceived by male participants in the EFL context). In the ESL context, discovery-determination (The type of VLSs perceived as the least useful by male participants in the ESL context is consolidation-cognitive strategies (3.18, SD=.98) while it is discovery-social strategies (3.35, SD=.92) in the EFL context. The perceptions of usefulness of general VLSs by male learners in the ESL context is represented by the score 3.39 (SD=.68) and 3.61 (SD=.72) in the EFL context.

c) Is there a significant difference between the VLSs found to be the most useful by the female and male learners in the ESL and EFL contexts?

In order to see if there was a significant relationship between the perceptions of usefulness of VLS use and gender and context, a Multivariate Analysis of Variances

(MANOVA) test was carried out. Wilks' Lambda values were taken into account. The results have been presented on Table 17.

Table 17

The interaction between context and gender regarding perceptions of VLS usefulness

Effect	Value	F	p	η^2
Context	.844	3.672	.002*	.156
Gender	.922	1.685	.131	.078
Context * Gender	.933	1.425	.211	.067

(* marks statistically significant p values)

The MANOVA test carried out to see the effects of context and gender on the perceptions of VLSs usefulness on Table 17 revealed a significant multivariate main effect of 'context', Wilks' Lambda = .844, $F(6,119) = 3.672$, $p < 0.05$; but not a significant main effect for 'gender', Wilks' Lambda = .922, $F(6,119) = 1.685$, $p > 0.05$; and again not a significant main effect for 'context and gender' together, Wilks' Lambda = .933, $F(6,119) = 1.425$, $p > 0.05$, with a partial eta squared (η^2) value (effect size) of .156 (out of 1) for context. In other words, there was a statistically significant difference between the participants in the UK (ESL) and in Turkey (EFL) in terms of their perceptions on the usefulness of VLSs. However, there was not a statistically significant difference between the male and female participants in the study in terms of their perceptions on the usefulness of VLSs. Also, when context and gender were assessed together, no statistically significant difference among participants was found. This means, the difference (in perceptions of VLS usefulness) between female and male participants is the same in the UK as it is in Turkey; and the other way round, the difference between the UK and Turkey is the same for female participants as it is for male participants.

Figure 22 aims to provide a graph of the interaction between the factors of gender and language context in terms of their relationship with participants' perceptions of usefulness of VLSs to make it easier to understand what the MANOVA test means.

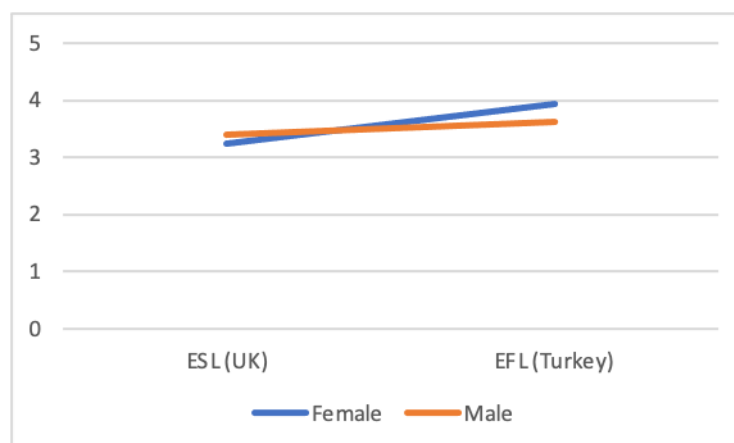


Figure 22. The interaction between gender and context in terms of their relationship with the perceptions of VLS usefulness

Figure 22 gives a clearer presentation of what the MANOVA test on Table 16 means. With its vertical axis representing perceptions on the usefulness of VLSs and the horizontal axis representing the context students come from (ESL vs. EFL), Figure 22 indicates that there is an effect of gender, but not of context, and that there is a lack of interaction between the effects of gender and contexts on the perceptions of VLS usefulness. In other words, the effect of context is similar for males and females.

An account of the distribution of average perceptions of usefulness regarding the six sub-categories and general average of VLSs according to academic major without paying any attention to which of the two language learning contexts students come from, has been provided on Table 18.

Table 18

Perceptions of VLS usefulness by arts & humanities and science major learners, and a comparison of VLS usefulness perceptions by the two academic major groups

Overall (n=128)							
		Arts & Humanities (n=83)		Science (n=45)		Arts & Humanities vs. Science	
Strategy type	Mean	SD	Mean	SD	<i>t</i>	<i>p</i>	<i>r</i>
D-Determination	3.83	.61	3.64	.75	1.454	.148	.12
D-Social	3.49	.87	3.41	1.04	.118	.906	.01
C-Social	3.56	.82	3.47	.88	.564	.574	.05
C-Memory	3.66	.81	3.57	.79	.621	.535	.05
C-Cognitive	3.58	.91	3.29	1.03	1.614	.109	.14
C-Metacognitive	4.07	.85	3.79	.88	1.734	.085	.15
General Average	3.67	.70	3.53	.74	1.045	.296	.09

(* marks statistically significant p values, D and C stand for Discovery and Consolidation strategies, respectively)

An analysis of the rankings of perceptions of usefulness regarding VLSs across academic majors (as shown on Table 18) revealed that the type of VLSs perceived as the most useful, consolidation-metacognitive strategies, is shared by arts & humanities major learners and science major learners of the study with the average frequencies of 4.07 (SD=.85) and 3.79 (SD=.88), respectively. There are minor differences in the rankings of VLS usefulness perceptions. While the strategy group perceived as the least useful by arts & humanities major learners is discovery-social (m=3.49, SD=.87), it is consolidation-cognitive (m=3.29, SD=1.03) for science major learners. It is clear from the table that although the means show a difference, the rankings of perceived usefulness of different types of VLSs are quite similar.

A *t* test was conducted to see if the difference between arts & humanities major and science major participants in their perception of the usefulness of VLSs was statistically significant. The results revealed that the difference between arts & humanities major and science major participants was not significant ($p>.05$) in any of the VLS categories or general VLS usefulness perception averages.

As for the mean perception of VLS usefulness in the two contexts according to academic majors, Table 19 below aims to provide some descriptive data on the perceptions of arts & humanities and science major learners on the usefulness of the six subcategories of VLSs and their perceptions of VLSs in general in both the ESL and EFL contexts.

Table 19

Perceptions of VLS usefulness by arts & humanities and science major learners in the ESL and EFL contexts

Strategy type	UK (n=49)				Turkey (n=79)			
	Arts & Humanities (n=30)		Science (n=19)		Arts & Humanities (n=53)		Science (n=26)	
	m	SD	m	SD	m	SD	m	SD
D-Determination	3.40	.50	3.73	.53	4.06	.53	3.58	.88
D-Social	3.10	.87	3.64	1.09	3.71	.80	3.35	1.01
C-Social	3.15	.83	3.41	.90	3.79	.73	3.52	.88
C-Memory	3.09	.72	3.63	.84	3.98	.67	3.52	.77
C-Cognitive	3.05	.88	3.12	1.17	3.88	.80	3.42	.91
C-Metacognitive	3.64	.93	3.81	.86	4.31	.69	3.78	.92
General Average	3.17	.60	3.56	.76	3.95	.59	3.52	.74

(D and C stand for Discovery and Consolidation strategies, respectively)

4.3.3. Sub-questions of the research # 6

a) What strategies are found to be the most useful by arts and humanities students in each of the ESL and EFL contexts?

Table 19 (columns 2-3 & 6-7) clearly shows that the type of VLS perceived as the most useful by the arts & humanities major learners in both the ESL and EFL contexts of the study is consolidation-metacognitive strategies, with the average scores of 3.64 (SD=.93) and 4.31 (SD=.69) respectively. Also, discovery-determination strategies are the second most useful strategy category in both the ESL (3.40, SD=.50) and EFL (4.06, SD=.53) contexts. In the ESL context, consolidation-social (3.15, SD=.83), discovery-social (3.10, SD=.87) and consolidation-memory (3.09, SD=.72) are the third, fourth and fifth most useful type of VLSs as perceived by arts & humanities major learners, respectively. In the EFL context, on the other hand, consolidation-memory (3.98, SD=.67), consolidation-cognitive strategies (3.88, SD=.80) and consolidation-social (3.79, SD=.73) are the third, fourth and fifth most useful type of VLSs (again as perceived by arts & humanities majors). While the type of VLSs perceived as the least useful is consolidation-cognitive strategies (3.05, SD=.88) in the ESL context, it is discovery-social strategies (3.71, SD=.80) in the EFL context. The perceptions of usefulness of general VLSs by arts & humanities major learners in the ESL context is represented by the score 3.17 (SD=.60) and 3.95 (SD=.59) in the EFL context.

b) What strategies are found to be the most useful by science major students in each of the ESL and EFL contexts?

Table 19 (columns 4-5 & 8-9) clearly shows that the type of VLS perceived as the most useful by the science major learners in both the ESL and EFL contexts of the study is consolidation-metacognitive strategies, with the average scores of 3.81 (SD=.86) and 3.78 (SD=.92) respectively. The second most useful VLS category as perceived by the science major learners is discovery-determination strategies, which is also shared in both the ESL (3.73, SD=.53) and EFL (3.58, SD=.88) contexts. In the ESL context, discovery-social (3.64, SD=1.09), consolidation-memory (3.63, SD=.84) and consolidation-social strategies (3.41, SD=.90) are the third, fourth and fifth most useful type of VLSs as perceived by science major learners respectively. In the EFL context, the third ranking is shared by consolidation-social (SD=.88) and consolidation-memory strategies (SD=.77) with a perceived value of

usefulness of 3.52. The fourth most useful type of VLSs (again as perceived by science majors) is consolidation-cognitive strategies with a mean value of 3.42 (SD=.91). While the type of VLSs perceived as the least useful is consolidation-cognitive strategies (3.12, SD=1.17) in the ESL context, it is discovery-social strategies (3.35, SD=1.01) in the EFL context. The perceptions of usefulness of general VLSs by science major learners in the ESL context is represented by the score 3.56 (SD=.76) and 3.52 (SD=.74) in the EFL context.

c) Is there a significant difference between the VLSs found to be the most useful by the arts and humanities major learners and science major learners in each of the ESL and EFL contexts?

In order to see if there was a significant relationship between perceptions of usefulness of VLS use and academic major and context, a Multivariate Analysis of Variances (MANOVA) test was carried out. Wilks' Lambda values were taken into account. The results have been presented in Table 20.

Table 20

The interaction between context and academic major regarding perceptions of VLS usefulness

Effect	Value	F	p	η^2
Context	.869	3.000	.009*	.131
Academic Major	.940	1.267	.278	.060
Context * Academic Major	.873	2.878	.012*	.127

(* marks statistically significant p values)

The MANOVA test carried out to see the effects of context and academic major on the perceptions of VLSs usefulness on Table 20 revealed a significant multivariate main effect of 'context', Wilks' Lambda = .869, $F(6,119) = 3$, $p < 0.05$, $\eta^2 = .131$; but not a significant main effect for 'academic major', Wilks' Lambda = .940, $F(6,119) = 1.267$, $p > 0.05$, $\eta^2 = .06$. However, the test revealed a significant main effect for 'context and academic major' together, Wilks' Lambda = .873, $F(6,119) = 2.878$, $p < 0.05$, $\eta^2 = .127$. In other words, there was a statistically significant difference between the participants in the UK (ESL) and in Turkey (EFL) in terms of their perceptions on the usefulness of VLSs, information on which has already been provided on Table 14. However, there was not any statistically significant difference between arts & humanities majors and science majors (as evident on Table 18). Yet, when context and academic major were assessed together, there was statistically significant difference among participants.

Figure 23 aims to provide a graph of the interaction between the factors of academic major and language context in terms of their relationship with participants' perceptions of usefulness of VLSs to make it easier to understand what the MANOVA test means.

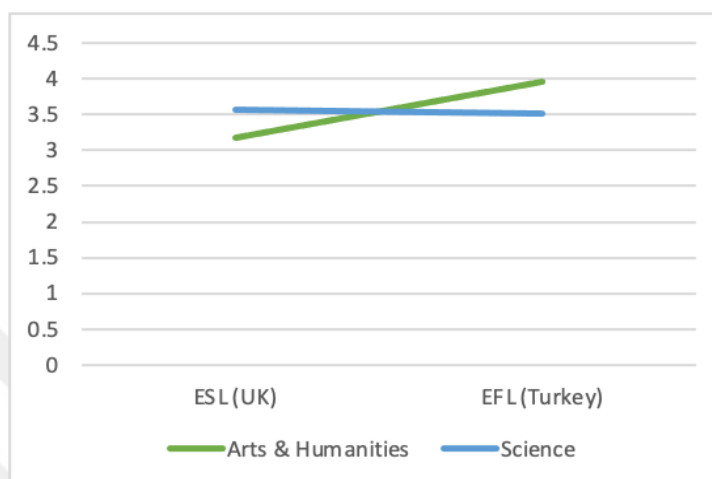


Figure 23. The interaction between academic major and context in terms of their relationship with the perceptions of VLS usefulness

Figure 23 gives a clearer presentation of what the MANOVA test on Table 20 means. With its vertical axis representing perceptions on the usefulness of VLSs and the horizontal axis representing the context students come from (ESL vs. EFL), Figure 23 indicates that there is an effect of context, but not of academic major. It also shows that there is an interaction between the effects of academic major and contexts on the perceptions on the usefulness of VLSs. In other words, the effect of context is different for arts & humanities majors from science majors.

4.4. Findings Concerning Vocabulary Achievement

First of all, it should be noted that the vocabulary level of the participants was not aimed to be investigated as the main focus or dependent variable of this study, rather, it was thought to be a possibly confounding variable that could have an effect on the frequency of use and perception of usefulness of VLSs.

The findings of the study concerning VLT will be presented in an order, with percentages of correct answers to each of the five word-levels in the ESL and EFL contexts first, and a calculation of a total average score of VLT for each language context. Then comes a distribution of learners who mastered each level (with a score of 24 and above) across the two contexts.

To assess ESL and EFL learners' knowledge of English vocabulary, students were given the Vocabulary Levels Test (VLT), first developed by Nation (1983) and improved by Schmitt and his friends (2001). The table below shows the mean scores for each of the five word-levels in the VLT first regardless of context and then across the ESL and EFL contexts separately. Besides, an analysis for the comparison of the two contexts in terms of the average scores at VLT (the outcomes of a t test) has been provided in Table 21.

Table 21

Overall and cross contextual scores on the VLT, and a comparison of ESL and EFL VLT scores

Word Levels	Overall (n=128)		UK (n=49)		Turkey (n=79)		UK vs. Turkey		
	Mean (/30)	SD	Mean (/30)	SD	Mean (/30)	SD	t	p	r
2,000 WL	24.60	6.02	27.64	1.99	22.71	6.87	4.90	.000*	.40
3,000 WL	22.81	7.50	26.72	3.39	20.38	8.31	5.07	.000*	.41
5,000 WL	20.27	8.41	22.95	6.98	18.59	8.83	2.93	.004*	.25
10,000 WL	12.16	8.46	14.52	8.16	10.69	8.36	2.54	.012*	.22
AWL**	21.59	8.44	25.03	6.07	19.45	9.02	3.82	.000*	.32

(* marks statistically significant p values, (AWL** stands for Academic Word Level)

Table 21 shows that the overall mean scores of participants range from 24.60 the highest to 12.16 the lowest. So, the order of difficulty of the word-levels in the VLT seems to be 2,000 word-level the easiest and 3,000 word-level the second easiest, as would be expected. Then, the Academic word level comes between 3,000 and 5,000 word-levels in difficulty according to the number of correct answers given by the participants. In Nation's (1990) version of the VLT, however, the Academic word level was presented between 5,000 and 10,000 word-levels, implying the difficulty level as somewhere between those two levels.

As for the mean scores in the ESL and EFL contexts of the study, while the order of difficulty remains the same, the scores are lower in the EFL contexts by about 5 less correct answers at each of the five word-levels.

In terms of a comparison of the mean scores at the five word-levels of VLT in the two contexts a t test, carried out, revealed that there was a statistically significant difference between the ESL and EFL contexts at all levels ($p < 0.05$). This means that the ESL group had a statistically significantly higher level of vocabulary when compared to the EFL group. A calculation of the effect sizes for the significant differences indicated a small sized effect for

5,000 ($r=.25$) and 10,000 word-levels ($r=.22$), a medium sized effect for 2,000 ($r=.40$), 3,000 ($r=.41$) and Academic word levels ($r=.32$).

Table 22 provides the percentages for the word-levels on the VLT receiving the lowest and the highest number of correct replies in the ESL and EFL contexts.

Table 22

Percentages for the lowest and highest correct replies for each word-level on the VLT in the ESL and EFL contexts

Word Levels	ESL (the UK)		EFL (Turkey)	
	Lowest	highest	lowest	highest
2,000 WL	87.76%	100%	59.49%	94.94%
3,000 WL	65.31%	100%	48.1%	91.13%
5,000 WL	59.18%	93.88%	41.77%	82.28%
10,000 WL	18.37%	89.8%	13.92%	74.68%
AWL*	65.31%	92.92%	26.58%	86.08%

(AWL* stands for Academic Word Level)

The overall performance for both groups has been observed to be lower and lower as the frequency of words decreased (from 2,000 to 10,000 word-levels), with the Academic word level somewhere between 3,000 and 5,000. In this respect, to be able to give a better and easier-to-understand account of VLT scores, the need for one overall VLT score has arisen. And this has been done by adding up the scores at each word-level and taking an average of them all. This score has been labelled as the “VLT total average score”.

A total average score of the six word-levels in the VLT was calculated for each participant to represent his/her success on the whole test. Indeed, the total average scores of the participants in the study (on the VLT) could have been a confounding variable when comparing the frequency of VLS use in the two contexts. Thus, the researcher felt the need to run an ANCOVA test controlling the effect of the VLT variable. In order to provide a ‘purer’ measure of the effect of context on the frequencies of VLS use by taking the effect of a confounding variable – namely, vocabulary levels - into account, a one-way ANCOVA was conducted to determine any statistically significant difference between the two language learning contexts regarding VLS use of participants controlling the effect of their vocabulary levels (see Table 23 below).

Table 23

The relationship between context and VLS use with the effect of vocabulary levels eliminated

Source	Sum of Squares	df	Mean Square	F	p	η^2
Corrected Model	7.405	2	3.703	9.073	.000*	.127
Intercept	90.764	1	90.764	222.404	.000*	.640
VLT Total Average Score	.036	1	.036	.087	.768	.001
Group	6.783	1	6.783	16.620	.000*	.117
Error	51.013	125	.408			
Total	1214.533	127				

(* marks statistically significant p values)

A one-way between subjects ANCOVA was calculated to examine the effect of language context on VLS use controlling for the effect of participants' vocabulary levels. Language context did show significant difference in terms of VLS use, $F(1,125) = 16.620$, $p < .05$, *partial* $\eta^2 = .117$, after eliminating the effect of vocabulary levels. Vocabulary levels was not a significant covariate, $F(1,125) = .87$, $p > .05$. In other terms, the covariate, vocabulary levels of participants, was not significantly related to their frequency of use of VLSs. However, there was a significant effect of language context after controlling for the effect of vocabulary levels.

One additional way of VLT assessment, as suggested by Schmitt, Schmitt and Clapham (2001, p. 67) is regarding learners with a score of "26 and above" on any of the word-levels of the VLT as those who "*mastered*" those levels. This means students are supposed to answer a minimum of 86.7% of the items correctly at each of the five levels of the test in order to be regarded as they *mastered* that level. However, as this score is really high, the threshold in this particular study is 24 (80%) out of the 30 total items, which is in accordance with some other studies in the literature, such as Xing and Fulcher (2007). In addition to this, a *total average score* on the overall VLT has been calculated for each one of participants, which, in turn, made it possible to determine the students who have a total average score of 24 or above on the overall VLT. These students are regarded as *high-level* learners (in terms of their knowledge of the most frequent 10,000 words and Academic Words in English). See Table 24 for the number and percentage of participants who mastered each word-level as well as that of the ones who scored high on the VLT as a whole in each of the ESL and EFL contexts.

Table 24

Number and percentage of participants who mastered each word-level in the ESL and EFL contexts

Group	2,000 WL	3,000 WL	5,000 WL	10,000 WL	AWL	Total Average
ESL (UK) (n=49)	46 (93.88%)	38 (77.55%)	28 (57.14%)	5 (10.20%)	29 (59.18%)	30 (61.22%)
EFL (Turkey) (n=79)	48 (60.76%)	28 (35.44%)	26 (32.91%)	7 (8.86%)	17 (21.52%)	23 (29.11%)

(AWL* stands for Academic Word Level)

According to Table 24, 46 (93.88%) of the total 49 ESL, and 48 (60.76%) of the 79 EFL learners mastered the 2,000 word-level. As the word-level increases a continuous decline is seen in the number of students mastering each level. At the 3,000 word-level, a sharp decline is seen in the number of EFL students who have score 24 and above. While 77.55% of the ESL students have mastered the 3,000 word-level, this ratio among the EFL students is only 35.44%. At the 5,000 word-level, only 57.14% of the ESL learners, and 32.91% of the EFL learners have scored 24 and above. The 10,000 word-level is the one at which the least numbers of students have scored 24 and above. Only 10.2% of the ESL learners, and 8.86% of the EFL learners mastered this level. As for the Academic word level, while 59.18% participants from the ESL have scored 24 and above at this level, only 21.52% of the participants from the EFL context scored 24 and above, which places this level somewhere between the 3,000 and 5,000 world levels with regards to difficulty.

In addition to the scores of the participants at each of the five word-levels, the need for one overall score for each participant on the whole test has emerged to be able to compare and contrast learners use of VLSs with regards to their achievement on the VLT. Thus, a total average score has been calculated for each participant by adding up their scores (out of 30) on each word-level and dividing the sum into 5, which is the number of word-levels on the test. Accordingly, when the total average scores of the participants on the VLT were taken into account, while 61.22% (30) of the ESL learners have been regarded as *high-level* while this ratio was only 29.11% (23) among the EFL learners. This adds up the number of students with a high-level of vocabulary to (30+23) 53.

Distribution of these 53 good learners (those with an overall average of 24 and above on the VLT) has been provided on Table 25 below.

Table 25

Distribution of the learners with high vocabulary levels according to context, gender, and academic major

		UK (ESL) (n=30)	%	Turkey (EFL) (n=23)	%	Overall (n=53)	%
Gender	Female	15	50	16	69.57	31	58.49
	Male	15	50	7	30.43	22	41.51
Academic Major	Arts & Humanities	20	66.67	19	82.61	39	73.58
	Science	10	33.33	4	17.39	14	26.42

Table 25 reveals that there were an equal number of female and male participants with a high-level of vocabulary (15 each) in the ESL context. In the EFL context, on the other hand, 69.57% (16) of the high-level participants were females while the remaining 30.43% (7) were males. A computation of the overall distribution of gender regardless of the language learning contexts revealed that 58.49% (31) of all the participants were females while the remaining 41.51% (22) were males.

As for the distribution of participants according to their academic majors as shown on Table 25 again, 66.67% (20) of the participants from the ESL context were arts and humanities major learners while the remaining 33.33% (10) were science majors. On the other hand, the ratio of arts and humanities students to science students in the EFL context has been computed to be 82.61% (19) to 17.39% (4), respectively. Thus, when the groupings were disregarded, 73.58% (39) of all the participants were arts and humanities major while the remaining 26.42% (14) were science major.

In order to find an answer to the 7th research question (a and b) below, the replies to the VLSQ of the *high-level* participants (those with a score of 24 and above on the VLT in terms of the total averages calculated) were analysed, and their average VLS use was recorded and presented on Table 26, first, regardless of their language learning contexts.

Before that, because there were a low number of participants in each group, the researcher could not rely on the Central-Limit Theorem anymore, so a test for normality had to be conducted. Normality was tested using Kolmogorov-Smirnov and Shapiro-Wilk tests, which revealed the data were normally distributed. So, the researcher could run the following t-test (a parametric test).

Table 26

Means and standard deviations for VLS use by learners with high vocabulary levels

Overall (n=53)			
Strategy type	Mean	SD	SE
D-Determination	3.63	.57	.08
D-Social	2.98	.97	.13
C-Social	2.69	.71	.10
C-Memory	3.06	.80	.11
C-Cognitive	2.71	.97	.13
C-Metacognitive	3.35	.94	.13
General Average	3.08	.64	.09

(D and C stand for Discovery and Consolidation strategies, respectively)

Table 26 reveals that the most frequently used category of VLSs is discovery-determination strategies with an average of 3.63 (SD=.57) with no regard to the contexts these high-level learners come from. consolidation-metacognitive and consolidation-memory strategies are the second and third most frequently used strategy categories with the averages of 3.35 (SD=.94) and 3.06 (SD=.80), respectively. Discovery-social (2.98, SD=.97) and consolidation-cognitive strategies (2.71, SD=.97) come next in the ranking of most frequently used VLS categories. The least frequently used category by the high-level learners is consolidation-social strategies with an average use of 2.69 (SD=.71).

The mean values for the frequency of use of the six VLS categories provided on Table 26 give a general idea about their popularity among participants with a high level of vocabulary. However, it does not provide the differences between the means in the two contexts; namely, ESL and EFL. See Table 27 below for high-level learners' use of VLSs in each of the ESL and EFL contexts and the differences between the average use of the six strategy groups in these two contexts

Table 27

Means and standard deviations for VLS use by the learners with high vocabulary levels in the ESL and EFL contexts, and a comparison of VLS use by high-level learners in the two contexts

	ESL (n=30)		EFL (n=23)		ESL vs. EFL		
Strategy type	Mean	SD	Mean	SD	<i>t</i>	<i>p</i>	<i>r</i>
D-Determination	3.48	.52	3.82	.59	-2.194	.033*	.29
D-Social	2.74	.97	3.30	.88	-2.180	.034*	.29
C-Social	2.59	.69	2.83	.72	-1.193	.238	.16
C-Memory	2.80	.72	3.40	.79	-2.910	.005*	.38
C-Cognitive	2.44	.85	3.05	1.02	-2.385	.021*	.32
C-Metacognitive	2.92	.88	3.91	.71	-4.409	.000*	.53
General Average	2.84	.55	3.39	.62	-3.378	.001*	.43

(* marks statistically significant *p* values, D and C stand for Discovery and Consolidation strategies, respectively)

4.4.1. Sub-questions of the research # 7

a) What VLSs do learners with high vocabulary levels use in the ESL context?

According to Table 27, the type of VLSs reported to be used the most frequently by the ESL learners with a high level of vocabulary (with a total average VLT score of 24 and above) is discovery-determination strategies, with an average of 3.48 (SD=.52). consolidation-metacognitive and consolidation-memory strategies are the second and third most commonly used VLS categories with the average use of 2.92 (SD=.88) and 2.80 (SD=.72), respectively. discovery-social strategies are the fourth most commonly used strategy category (2.74, SD=.97). consolidation-social strategies come next in the ranking with an average of 2.59 (SD=.69). The least frequently used VLS group in this context is consolidation-cognitive strategies with an average of 2.44 (SD=.85). High-level learners in the ESL used VLSs (in general) with an average of 2.84 (SD=.55).

b) What VLSs do learners with high vocabulary levels use in the EFL context?

According to Table 27, the most commonly used VLS category by the good learners is consolidation-metacognitive strategies with a mean use of 3.91 (SD=.71). The second most frequently used strategy group in this context is discovery-determination strategies (3.82, SD=.59) followed by consolidation-memory strategies (3.40, SD=.79). discovery-social strategies come the fourth in the ranking with a mean use of 3.30 (SD=.88). The fifth most frequently used strategy category is consolidation-cognitive (3.05, SD=1.02) while the least frequently used category is consolidation-social with an average use of 2.83 (SD=.72).

The high-level learners in the EFL context used VLSs (in general) with an average of 3.91 (SD=.71).

c) Is there a statistically significant difference between the ESL and EFL contexts in terms of the VLSs used by learners with high vocabulary levels?

A comparison of the ESL and EFL contexts in terms of the reported frequency of use of the six types of VLSs by learners with a high level of vocabulary (as assessed by a total average VLT score of 24 and above) on Table 27 (columns 6 & 7) revealed statistically significant difference ($p < .05$) in five of the six VLS categories; in other words, in all except consolidation-social strategies [$t(51) = -1.193$, $p > .05$] between the ESL and EFL contexts. A calculation of the effect sizes indicated a large sized effect for consolidation-metacognitive strategies ($r = .53$) while a medium sized effect ($r = .30-.49$) for the remaining four significant VLS categories.

As far as the difference between the general average scores of the learners with a total score of 24 and above on the VLT are concerned, the analysis revealed significant difference between the ESL and EFL contexts [$t(51) = -3.378$, $p < .05$], with a medium sized effect ($r = .43$).

Another point which draws attention here is that, including the ones with a significant difference in use in the two contexts, in all the VLS, EFL averages are higher than the ESL averages, which shows that the high-level learners in the EFL context use all six VLS categories (statistically significantly or not significantly) more frequently than those in the ESL context. Since both groups mentioned here consist of high-level learners only (those with a total average score of 24 and above out of 30 on the VLT), more frequent use of all VLS categories by EFL learners (with 5 of the 6 being significantly different) prompts that in the EFL context students have to compensate for the lack of input and other disadvantages of the EFL context as compared to the ESL by adopting more VLSs more frequently.

Besides all these, a comparison of the differences between the two contexts with all the participants on one hand and the two contexts with only the students scoring over 24 and above on the other (Tables 7 and 27) reveals that these two contexts can be regarded as pretty different from each other when only high-level students are taken into account, with five significant differences, which is also the number of significant results when all the students in both contexts are compared.

Just like language learning context, gender is also regarded as a factor that might potentially affect strategy use in this particular study. Thus, an analysis of female and male good learners' use of VLSs will be provided below on Table 28 in order to find an answer to the 8th research question of the study.

Table 28

Means and standard deviations for VLS use by female and male learners with high vocabulary levels, and a comparison of VLS use by female and male high-level learners

	Females (n=31)		Males (n=22)		Females vs. Males		
Strategy type	Mean	SD	Mean	SD	<i>t</i>	<i>p</i>	<i>r</i>
D-Determination	3.75	.61	3.45	.46	1.957	.056	.26
D-Social	3.23	1.06	2.64	.69	2.300	.026*	.31
C-Social	2.80	.67	2.55	.75	1.301	.199	.18
C-Memory	3.34	.78	2.66	.66	3.313	.002*	.42
C-Cognitive	2.79	.87	2.58	1.10	.772	.444	.11
C-Metacognitive	3.52	.94	3.12	.92	1.520	.135	.21
General Average	3.28	.61	2.76	.58	2.914	.005*	.38

(* marks statistically significant *p* values, D and C stand for Discovery and Consolidation strategies, respectively)

4.4.2. Sub-questions of the research # 8

a) What VLSs do female learners with high vocabulary levels use?

Table 28 clearly shows that the most frequently used VLS category by female learners with a high level of vocabulary is discovery-determination strategies with an average use of 3.75 (SD=.61). The second and third most frequently used strategy groups by these learners are consolidation-metacognitive (3.52, SD=.94) and consolidation-memory strategies (3.34, SD=.78), respectively. discovery-social and consolidation-social strategies are the fourth and fifth most frequently used strategies with the means of 3.23 (SD=1.06) and 2.80 (SD=.67), respectively. The least frequently used strategy category by female learners with a high level of vocabulary is consolidation-cognitive (2.79, SD=.87).

b) What VLSs do male learners with high vocabulary levels use?

The ranking for the VLS categories according to their frequency of use by the male learners with a high level of vocabulary is almost the same with that of their female counterparts. Discovery-determination strategies are the most frequently used strategy category with a mean use of 3.45 (SD=.46). Consolidation-metacognitive (3.12, SD=.92) and consolidation-memory strategies (2.66, SD=.66) are the second and third most frequently used strategy groups by these learners are, respectively. The fourth and fifth most frequently

used VLSs are discovery-social (2.64, SD=.69) and consolidation-cognitive strategies (2.58, SD=1.1). And the least frequently used VLS category by male earners with a high level of vocabulary is consolidation-social strategies with a mean of 2.55 (SD=.75).

c) Is there a significant difference between female and male learners with high vocabulary levels in terms of their VLS use?

An analysis of the differences in VLS use between the female and male participants with a high level of vocabulary as presented on Table 28 reveals that the difference is significant ($p < .05$) in two of the six categories; namely, discovery-social [$t(51)=2.3$, $p=.026$] and consolidation-memory strategies [$t(51)=3.313$, $p=.002$]. A calculation of the effect sizes indicated medium sized effect for both significant differences. Analysis revealed non-significant ($p > .05$) difference between females and male learners with a high level of vocabulary in the remaining four categories; namely, discovery-determination, consolidation-social, consolidation-cognitive, and consolidation-metacognitive. As for the overall VLSs, the difference between the two gender groups is significant [$t(51)=2.914$, $p < .05$] in favour of females with a medium sized effect ($r=.38$).

As another potential factor to affect participants' VLS use, their academic majors were also taken into account. In this respect, an analysis of VLS use of arts & humanities major and science major learners with a high level of vocabulary has been provided below on Table 29.

Table 29

Means and standard deviations for VLS use by arts & humanities and science major learners with high vocabulary levels, and a comparison of VLS use by high-level members of the two majors

	Arts & Humanities (n=40)		Science (n=13)		Arts & Humanities vs. Science		
Strategy type	Mean	SD	Mean	SD	<i>t</i>	<i>p</i>	<i>r</i>
D-Determination	3.69	.59	3.44	.46	1.336	.187	.18
D-Social	2.95	1.02	3.09	.82	-.457	.649	.06
C-Social	2.69	.72	2.71	.69	-.078	.938	.01
C-Memory	3.06	.82	3.07	.77	-.039	.969	.01
C-Cognitive	2.57	.97	3.13	.86	-1.875	.067	.25
C-Metacognitive	3.33	.98	3.41	.85	-.253	.801	.04
General Average	3.06	.67	3.13	.53	-.327	.745	.05

(* marks statistically significant *p* values, D and C stand for Discovery and Consolidation strategies, respectively)

4.4.3. Sub-questions of the research # 9

a) What VLSs do arts and humanities major students with high vocabulary levels use?

According to Table 29, discovery-determination strategies are most commonly used by arts & humanities major learners with a high level of vocabulary (with an average of 3.69, SD=.59). Consolidation-metacognitive and consolidation-memory strategies are the second and third most commonly used VLS categories by these learners with the average use of 3.33 (SD=.98) and 3.06 (SD=.82), respectively. Discovery-social strategies are the fourth most commonly used strategy category (2.95, SD=1.02). Consolidation-social strategies come next in the ranking with an average of 2.69 (SD=.72). The least frequently used VLS group in this context is consolidation-cognitive strategies with an average of 2.57 (SD=.97). Arts & humanities major learners with a high level of vocabulary used VLSs (in general) with an average of 3.06 (SD=.67).

b) What VLSs do science major students with high vocabulary levels use?

Science major learners with a high level of vocabulary most commonly used discovery-determination strategies with a mean use of 3.44 (SD=.46). The second most frequently used strategy group by science major learners with a high level of vocabulary is consolidation-metacognitive strategies (3.41, SD=.85) followed by consolidation-cognitive (3.13, SD=.86). Discovery-social strategies come the fourth in the ranking with a mean use of 3.09 (SD=.82). The fifth most frequently used strategy category is consolidation-memory strategies (3.07, SD=.77) while the least frequently used category is consolidation-social with an average use of 2.71 (SD=.69). The science major learners with a high level of vocabulary used overall VLSs with an average of 3.13 (SD=.53).

c) Is there a significant difference between arts and humanities major and science major learners with high vocabulary levels in terms of their VLS use?

As for differences between arts & humanities major and science major learners with high vocabulary levels in terms of VLS use, although there are differences between the participants' mean scores, the difference between the two major groups is not significant ($p > .05$) for any of the six strategy categories. As far as the difference between the general average scores of the learners with a high level of vocabulary is concerned, the analysis did not reveal significant difference between arts & humanities major and science major learners with a high level of vocabulary [$t(51) = -.327$, $p > .05$].

CHAPTER V

CONCLUSIONS, DISCUSSIONS AND SUGGESTIONS

5.1. Summary and Discussion of Study Findings

The purpose of this research was to compare the vocabulary learning strategies (VLSs) used by graduate level Turkish ESL learners pursuing their master's or doctorate education in the UK (ESL) and in Turkey (EFL) and to get an insight into the relationship between VLS use in the two language learning contexts and vocabulary achievement. This piece of research yielded findings on three levels: (1) learners' frequency of VLS use, (2) their perceptions of VLS usefulness, and (3) VLS use patterns of the learners with high vocabulary levels. Information in each of these three levels has been discussed with relation to learners' language learning context (ESL vs. EFL), gender (female vs. male), and academic major (arts & humanities vs. science). The sub-questions of research and the findings regarding each of them have been discussed below in light of the literature.

5.1.1. The frequencies of learners' vocabulary learning strategy (VLS) use

The first three sub-questions of the research addressed learners' VLS use with regards to their (1) language learning context, (2) gender, and (3) academic major. Before moving on with the summary and discussion of the sub-questions of the research, the researcher finds it useful to give some information about the VLS use patterns by all the participants in the study. An analysis of the frequency of VLS use by all the participants (a total of 128 graduate learners) in the study revealed the rankings of the six strategy groups employed by the participants taking the factors of language learning context (as presented on Table 7), gender (Table 8) and academic major (Table 11 in Chapter IV) into account. Table 30 below reveals the rankings of VLS use.

Table 30

Rankings of VLS sub-categories in terms of use

Strategy type	Overall (n=128)	ESL (n=49)	EFL (n=79)	F (n=70)	M (n=58)	A&H (n=83)	Science (n=45)
D-Determination	1	1	1	1	1	1	1
D-Social	4	3	4	4	4	4	3
C-Social	6	6	6	6	6	5	5
C-Memory	3	4	3	3	3	3	3
C-Cognitive	5	5	5	5	5	4	4
C-Metacognitive	2	2	2	2	2	2	2

(D and C stand for Discovery and Consolidation strategies, respectively; F stands for female and M stands for male participants; A&H stands for arts & humanities major participants)

According to Table 30, column two, discovery-determination strategies, which are used to determine the meaning of a word when one meets it for the first time, stood out among other strategy groups as the strategy category that was most frequently used by graduate learners. Learners pursuing their masters or doctorates in a variety of departments surely face a number of new words in the course of their academic life, and thus it is normal that they make use of determination strategies such as analysing affixes, part of speech, and using context or imagery to discover the word's meaning on their own. This finding is in line with that of Amiran and Heshmatifar (2013), who investigated VLS use by 74 EFL university students and found that determination strategies were the most frequently used category.

Discovery-determination strategies were followed by consolidation-metacognitive strategies, which “involve a deeper processing of the information and require planning, monitoring and evaluating” (Schmitt, 1997, p. 203), as the second most frequently used VLSs by graduate learners. In this respect, metacognitive strategies are tailor-cut for graduate learners, who are autonomous learners capable of directing their own learning. Many studies in the literature concluded that metacognitive strategies were the most commonly used strategy group by learners (Ehrman & Oxford, 1995; Ellis & Shintani, 2014; Kayacioğlu, 2013; Nazri, Yunus, & Nazri, 2016). Similarly, metacognitive strategies come second in the ranking out of six VLS sub-categories according to the findings of the present study, which shows the findings of this study are more or less in line with the literature.

Next in the ranking of the most frequently used VLSs came consolidation-memory and discovery-social strategies. “Memory strategies are strategies related to repetition and use of mechanical means” and “discovery-social strategies refer to consulting another

person's expertise to discover a new word's meaning" (Schmitt, 1997, p. 203). Fifth in the ranking of VLS use came consolidation-cognitive strategies, which include strategies that require associating, linking with prior knowledge and using imagery.

The least frequently used VLS category, on the other hand, was consolidation-social strategies. This is in parallel with the findings of some studies in the literature (Amiran & Heshmatifar, 2013; Hismanoglu & Turan, 2019; Kafipour, Yazdi, Soori, & Shokrpour, 2011; Komol & Sripetpun, 2014; Şener, 2003) which also reported social strategies to be the least frequently used VLS category. The three social strategies used to consolidate meaning according to Schmitt's (1997: 205-206) taxonomy of VLSs are "study and practice meaning in a group", "interact with native speakers (to consolidate word meaning)", and "teacher checks students' flashcards or wordlists for accuracy". Graduate learners pursuing their masters and doctorates, on the other hand, tend to be more autonomous in their learning, which adds to the individualistic way of study vocabulary learning requires. Graduate learners recruited for this study seem to use social strategies to determine word meaning rather than to consolidate it, ranking them the fourth most frequently used category out of the six categories.

1st sub-question of the research

The first sub-question of the research dealt with the VLS use frequencies regarding the VLSs used by Turkish graduate learners *(a) in the ESL context, (b) in the EFL context, and (c) the differences in VLS use between the two contexts*. Both Table 7 in Chapter IV and Table 30 (columns three & four) above show that the rankings for the use of the total six VLS categories were exactly the same in the ESL and EFL contexts except for the ones with the 3rd and 4th (two of the) rankings. That is, the VLS sub-categories that were used the most (1st ranking) and the least (6th) frequently, as well as the ones with the 2nd and 5th rankings, were shared in the ESL and EFL contexts.

To start with, the most frequently used VLSs by the Turkish graduate learners both in the ESL and EFL contexts were discovery-determination strategies. This category of VLSs is used to determine the meaning of a word when one meets it for the first time. As part of their academic studies, graduate students meet new words almost on a daily basis and thus, it is normal that they use strategies to make out the meaning of those words by using determination strategies such as word-part or part of speech (noun, verb, etc.) analysis, dictionary and guessing strategies.

The second most frequently used VLSs in both the ESL and EFL contexts were consolidation-metacognitive strategies, which “involve a deeper processing of the information and require planning, monitoring and evaluating” (Schmitt, 1997, p. 203). While discovery-social and consolidation-memory strategies were used in the ESL context with the top third and fourth rankings, respectively, the order of the rankings were exchanged in the EFL context (with consolidation-memory strategies being more frequently used than discovery-social strategies) by the EFL learners. The reason why there was such a difference in the rankings of discovery-social and consolidation-memory strategies between the two contexts might be that Turkish graduate learners in the ESL context, surrounded by the advantages of a context with English as the main language, preferred to socially discover the meanings of some words by asking their teachers, classmates or people around them (either native speakers of English or not). On the other hand, their counterparts in the EFL context in Turkey seem to rely more on themselves and their self-study skills, and thus they used memory strategies, which are “strategies related to repetition and use of mechanical means” (Schmitt, 1997, p. 203) rather than on other people’s expertise.

Fifth in the ranking of VLS use in both the ESL and EFL contexts came consolidation-cognitive strategies, which include strategies such as verbal and written repetition, word lists, taking notes in the class, etc. Lastly, the least frequently used VLS category, which was consolidation-social strategies, was also shared by the participants in both the ESL and EFL contexts. Similarly, social strategies have been reported to be the least frequently used VLS category by some studies (Kafipour, Yazdi, Soori, & Shokrpour; 2011; Komol & Sripetpun, 2014; Şener, 2003).

Another important finding regarding VLS use in the two contexts (as shown on Table 7 in Chapter 4) was that the difference in VLS use between the ESL and EFL participants was statistically significant in 5 of the total 6 VLS sub-categories (except for consolidation-social strategies, which is the least frequently used strategy group) as well as the difference between the general VLS use averages in favour of the EFL context. Even when the effect of learners’ different vocabulary levels was eliminated through the use of ANCOVA tests provided on Table 23, the difference (in favour of the EFL context) in VLS use between ESL and EFL contexts remained significant. This shows that learners in the EFL context try and compensate for the lack of input in the EFL context by employing more VLSs than their counterparts in the ESL context. Many scholars (Crookes, Davis, & LoCastro, 1994; Gu, 1996, 2003a; Riley & Harsh, 1999) have pointed out that the strategies learners need to employ in ESL and EFL contexts are different from each other. This is in

line with the findings of this present research. There is also some empirical evidence (Anderson, 2004; Fatemipour, 2013; Kojic-Sabo & Lightbown, 1999; Riley & Harsh, 1999) regarding the significance of language learning context on learners' strategy use in the literature.

2nd sub-question of the research

The second sub-question of the research dealt with *(a) female and (b) male learners' VLS use patterns in each of the ESL and EFL contexts* as well as *(c) the differences in VLS use between females and males*. Columns 5 and 6 on Table 30 above reveal the rankings for the VLS sub-categories as deployed by female and male participants in the study irrespective of the language learning contexts they came from. The results indicate that the rankings for the total six sub-categories of VLSs for female and male participants in the study were exactly the same with not even a minor difference between the two. To be more precise, the VLS sub-category with the top ranking was discovery-determination strategies. Next in the ranking came consolidation-metacognitive strategies and consolidation-memory strategies, respectively. Discovery-social strategies and consolidation-cognitive strategies were the fourth and fifth most frequently used strategies. The least frequently used category was consolidation-social strategies by both gender groups. This means, both female and male participants in the study seemed to use social strategies just to determine the meaning of new words rather than to consolidate words in the memory, which they most probably did on their own, autonomously.

Another important finding of the study is that the difference in VLS use between the two genders was not significant in any of the total six VLS sub-categories or the general averages for VLS use. In this respect, among the other studies in the literature with findings in line with the present study (those finding gender as a non-significant factor in strategy use) are the ones carried out by Abu Shmais (2003), Ahour & Abdi (2015), Sung (2011), and Tsai & Chang (2009). However, the effect of gender on strategy use has always been a controversial issue in the literature. There are also a number of studies that found a significant relationship between gender and strategy use, some in favour of females (Ehrman & Oxford, 1989; Green & Oxford, 1995), some others in favour of males (Tercanlioglu, 2004; Wharton, 2000).

3rd sub-question of the research

The third sub-question of the research deals with VLS use patterns by arts & humanities and science major learners in the *(a) ESL, (b) EFL contexts as well as (c) the*

differences in VLS use between the members of each academic major groups. The last two columns of Table 30 provide the rankings of the six VLS sub-categories for arts & humanities and science major learners. According to this, all the VLS rankings were the same for arts & humanities and science major learners except for the ones with the third and fourth rankings. In other words, the VLS with the first, second, fifth and sixth rankings for the arts & humanities and science major learners were shared.

The most frequently used VLS sub-category by both academic majors was discovery-determination strategies. Next in the ranking for both groups came consolidation-metacognitive strategies. While the VLS sub-category with the third ranking was consolidation-memory for the arts & humanities major learners, consolidation-memory and discovery-social strategies both had the third ranking (with the same mean score) for science major learners. Similarly, while the VLS sub-category with the fourth ranking was consolidation-cognitive strategies for science major learners, consolidation-cognitive and discovery-social strategies both had the fourth ranking (with the same mean score) for the arts & humanities major learners. The VLS sub-category with the last ranking was consolidation-social strategies for both academic major groups.

Another notable finding of the research was that academic major did not make a significant effect on learners' VLS use (as already shown on Table 11 in Chapter IV). This finding is parallel with the findings of Gu's (2002) and Meshkat and Khanjani's (2014), who also concluded that the relationship between academic major and strategy use was not significant. However, just like gender, the relationship between learners' academic majors and their strategy use is also a controversial issue which has long been investigated and discussed in the literature, and research findings proving the relationship as significant are also abundant in the literature (Bernardo and Gonzales, 2009; Boonkongsan & Intaraprasert, 2014; Chiang, 2004; Liao, 2004; Mingsakoon, 2002; Mochizuki, 1999, Muniandy & Shuib, 2016; Peacock & Ho, 2003; Zhang, 2009).

5.1.2. Learners' perceptions of vocabulary learning strategy (VLS) usefulness

The fourth, fifth, and sixth sub-questions of the research addressed learners' perceptions regarding how useful VLSs are. The analyses were carried out with relation to language learning context (4th), gender (5th), and academic major (6th).

Before moving on with the summary and discussion of the fourth sub-question of the research, the researcher finds it useful to give some information about the overall perceptions of VLS usefulness by all the participants in the study. An analysis of the usefulness of VLSs

by all the participants (a total of 128 graduate learners) in the study revealed the rankings of the six strategy groups as perceived by the participants in the study taking the factors of language learning context (as presented on Table 14), gender (Table 15) and academic major (Table 18 in Chapter IV) into account. Table 31 below reveals the rankings of VLS sub-categories in terms of perceptions of usefulness.

Table 31

Rankings of VLS sub-categories in terms of perceptions of usefulness

	Overall	ESL	EFL	F	M	A&H	Science
Strategy type	(n=128)	(n=49)	(n=79)	(n=70)	(n=58)	(n=83)	(n=45)
D-Determination	2	2	2	2	2	2	2
D-Social	5	3	6	6	4	6	5
C-Social	4	5	5	4	5	5	4
C-Memory	3	4	3	3	3	3	3
C-Cognitive	5	6	4	5	6	4	6
C-Metacognitive	1	1	1	1	1	1	1

(D and C stand for Discovery and Consolidation strategies, respectively; F stands for female and M stands for male participants; A&H stands for arts & humanities major participants)

As shown on column 2 on Table 31, the VLS sub-category perceived as the most useful by a majority of the participants was consolidation-metacognitive strategies. VLS usefulness as perceived by language learners is not as popular a research interest as VLS use is in the literature. Yet, metacognitive strategies, which were perceived as the most useful VLS sub-category by the participants in this particular research, were found to be the most frequently used group of strategies by Ehrman and Oxford (1995), Ellis and Shintani (2014), Kayacioğlu (2013), and Nazri, Yunus, and Nazri (2016).

Next in the ranking of most useful VLSs as perceived by the whole group of participants came discovery-determination strategies. It is also striking that there was a difference between the most useful VLSs as perceived by learners (consolidation-metacognitive) and the ones most frequently used by them (discovery-determination). Consolidation-memory and consolidation-social strategies were perceived as the third and fourth most useful sub-category of VLSs, respectively. The least useful VLS sub-categories as perceived by all the participants were discovery-social and consolidation-cognitive strategies with a shared mean score, which is partly in line with learners VLS use patterns as they were used with the top fourth and fifth rankings as shown before on Table 30.

4th sub-question of the research

The fourth sub-question of the research dealt with VLS usefulness as perceived by Turkish graduate learners *(a) in the ESL context, (b) in the EFL context, and (c) the differences in VLS use between the two contexts*. Both Table 14 in Chapter IV and Table 31 (columns 3 & 4) above show that there were some differences between the ESL and EFL contexts in the rankings for the perceived usefulness of the total six VLS. That is, the VLS sub-categories that were perceived to be useful with the first (consolidation-metacognitive), second (discovery-determination) and fifth rankings (consolidation-social) were shared while there were differences with the rankings of third, fourth and, lastly, the least useful by the participants in the ESL and EFL contexts.

To be more precise, discovery-social and consolidation-memory strategies were perceived as the third and fourth most useful VLS sub-categories in the ESL context, respectively. The least useful VLS sub-category, as perceived by the participants in this context, was consolidation-cognitive strategies. As for the EFL context, on the other hand, the third and fourth most useful VLS sub-categories were consolidation-memory and consolidation-cognitive strategies, respectively. The least useful VLS sub-category as perceived by the participants in this context was discovery-social strategies. This difference in the rankings (of especially the least useful VLSs) might stem from the limited opportunities in the EFL context to socially discover the meaning of unknown words (by consulting other people's expertise).

Another important finding of the research (as shown on Table 14 in Chapter IV) was that the difference between the perceived usefulness of VLSs in the ESL and EFL contexts was significant for five out of the total six VLS sub-categories (all except for discovery-social) as well as the overall VLS usefulness averages. This shows that the significance in the difference in VLS use between the two contexts reflects on the perceived VLS usefulness.

5th sub-question of the research

The fifth sub-question of the research dealt with VLSs perceived as useful by *(a) female learners, (b) male learners, and (c) the difference in perceived VLS usefulness by female and male learners*. According to Table 15 in Chapter IV and Table 31, columns 5 and 6 above, the VLS sub-categories perceived as useful with the top three rankings; namely, consolidation-metacognitive (1st), discovery-determination (2nd), and consolidation-memory (3rd), were shared by female and male participants in the study. Female participants

perceived consolidation-social and consolidation-cognitive strategies as the fourth and fifth most useful VLSs, respectively. On the other hand, male participants perceived discovery-social and consolidation-social strategies as the fourth and fifth most useful VLSs, respectively. The VLSs perceived as the least useful by female participants in the study were discovery-social strategies while they were consolidation-cognitive strategies for male learners. However, despite these big differences in the rankings of the perceived usefulness of VLSs by female and male learners, the differences in the mean scores for these perceptions were significant in only two (discovery-determination and consolidation-metacognitive) out of the total six VLS sub-categories, and not significant for the general VLS perception of usefulness averages between the two genders. Yet, the mean scores of females were higher than those of males in all sub-categories; that is, female learners perceived all sub-categories of VLSs to be more useful than male participants did.

6th sub-question of the research

The sixth sub-question of the research dealt with VLSs perceived as useful by (a) *arts & humanities major learners*, (b) *science major learners*, and (c) *the difference in perceived VLS usefulness by the members of the two academic major groups*. The last two columns of Table 31 provide the rankings of the six VLS sub-categories for arts & humanities and science major learners. According to these, the rankings for the top three most useful VLS sub-categories; namely, consolidation-metacognitive (1st), discovery-determination (2nd), and consolidation-memory (3rd), were the same for arts & humanities and science major learners. Arts & humanities major participants perceived consolidation-cognitive and consolidation-social strategies as the fourth and fifth most useful VLSs, respectively. On the other hand, science major participants perceived consolidation-social and discovery-social strategies as the fourth and fifth most useful VLSs, respectively. The VLS sub-category perceived as the least useful by arts & humanities major learners was discovery-social strategies while it was consolidation-cognitive strategies for male learners (just like in the case of female and male perceptions of VLS usefulness discussed in the fourth sub-question of the research).

Despite the differences in the rankings of the perceived usefulness of VLSs by arts & humanities and science major learners, the differences in the mean scores for these perceptions were not significant for any of the six sub-categories of VLSs or the general VLS means scores of perceived usefulness. This is in parallel with the finding of this

research regarding the non-significant relationship between VLS use and academic orientation (as discussed above under the third sub-question of the research).

5.1.3. Vocabulary learning strategy (VLS) use and achievement

The seventh, eighth, and ninth sub-questions of the research addressed the relationship between learners' VLS use and achievement as determined by their vocabulary levels in the case of this research. One of the main questions this piece of research set out to answer was the effective VLSs learners use. To achieve this goal, VLS use patterns by learners with high vocabulary levels were examined with regards to language learning context (7th), gender (8th), and academic major (9th), all three of which including two alternatives. In this respect, each of the sub-questions of the research dealt with these two alternatives one by one first, and then with the differences in VLS use between the two.

Before moving on with the summary and discussion of the seventh sub-question of the research, the researcher finds it useful to give some information about the VLS use patterns by all the participants with high vocabulary levels. First of all, after a calculation of learners' scores on the five word-levels of the Vocabulary Levels Test (Schmitt, 1997), an average mean score for the overall VLT was calculated for each learner, and those with an average overall score of 24 and above were regarded as *learners with high vocabulary levels* (n=53). An analysis of the VLS use by all the participants with high vocabulary levels (a total of 53 graduate learners) revealed the rankings of the six strategy groups taking the factors of language learning context (as presented on Table 27), gender (Table 28) and academic major (Table 29 in Chapter IV) into account. Table 32 below reveals the rankings of VLS sub-categories in terms of use by learners with high vocabulary levels.

Table 32

Rankings of VLS sub-categories in terms of use by learners with high vocabulary levels

	Overall	ESL	EFL	F	M	A&H	Science
Strategy type	(n=53)	(n=30)	(n=23)	(n=31)	(n=22)	(n=83)	(n=45)
D-Determination	1	1	2	1	1	1	1
D-Social	4	4	4	4	4	4	4
C-Social	6	5	6	5	6	5	6
C-Memory	3	3	3	3	3	3	5
C-Cognitive	5	6	5	6	5	6	3
C-Metacognitive	2	2	1	2	2	2	2

(D and C stand for Discovery and Consolidation strategies, respectively; F stands for female and M stands for male participants; A&H stands for arts & humanities major participants)

As shown on Table 32, column 2, the most frequently used VLS sub-category by participants with high vocabulary levels was discovery-determination strategies. Consolidation-metacognitive and consolidation-memory strategies were the second and third most frequently employed VLS sub-categories by high-level learners. Next in the ranking came discovery-social (4th) and consolidation-cognitive strategies (5th). The least frequently used VLSs by these learners were consolidation social strategies. The rankings of VLSs as employed by learners with high-vocabulary levels are exactly the same as the VLSs as employed by all the participants (n=128) as presented on Table 30. Also, the number of each group of learners with high vocabulary levels strikes attention here. As shown on Table 32, 53 (41%) of the total 128 participants had high vocabulary levels.

7th sub-question of the research

The seventh sub-question of the research dealt with VLS use patterns of learners with high vocabulary levels *(a) in the ESL context, (b) in the EFL context, and (c) the difference in VLS use between the ESL and EFL contexts*. Both Table 27 in Chapter IV and Table 32 (columns 3 & 4) above show that the rankings for the use of the total six VLS categories by learners with high vocabulary levels were all different apart from the least frequently used VLS sub-category by them.

To start with, 30 (61%) of the total 49 participants from the ESL context had high vocabulary levels. The most frequently used VLSs by Turkish graduate learners with high vocabulary levels in the ESL context were discovery-determination strategies. Graduate learners in an ESL context (with limitless input) surely come across unknown words almost on a daily basis on and off campus, which makes them use strategies to determine meaning of words. Consolidation-metacognitive and consolidation-memory strategies came second and third in the ranking, respectively. Social strategies (with discovery-social strategies occupying the fourth and consolidation-social strategies occupying the fifth ranking) came next in the VLS use rankings. Lastly, the least frequently used VLSs in the ESL context were consolidation-cognitive strategies, which include strategies that require associating, linking with prior knowledge and using imagery.

As for the participants with high vocabulary levels in the EFL context, they constituted only 29% (23) of the total 79 participants in this context, which is a much lower ratio than in the ESL context. The most frequently used VLS sub-category by participants with high vocabulary levels in the EFL context was consolidation-metacognitive strategies. Graduate learners (with high vocabulary levels) pursuing their education in a language

(English, in this case) that is not their native language or the language spoken in the country they are studying in, surely need to focus more on consolidation-metacognitive strategies (such as using L2 media like songs, movies, etc., testing themselves with word tests, and continuing to study vocabulary over time) to increase their exposure to language as the EFL context only offers them a limited amount of input. Discovery-determination and consolidation-memory strategies came second and third in the ranking, respectively. The VLS sub-categories with the fourth and fifth rankings were discovery-social and consolidation-cognitive strategies. The least frequently used VLSs by the participants with high vocabulary levels in the EFL context were consolidation-social strategies.

Another notable finding of the research (as shown on Table 27 in Chapter IV) was that the difference between the ESL and EFL contexts in VLS use by learners with high vocabulary levels was found to be significant in five out of the total six VLS sub-categories (all except consolidation-social strategies) as well as the general VLS use averages. This shows that language learning context stands out as a factor that effects learners' VLS use patterns (even when only higher-achiever learners are analysed).

8th sub-question of the research

The eighth sub-question of the research dealt with the VLS use patterns by (a) *female and (b) male learners with high vocabulary levels as well as (c) the difference in VLS use between these two gender groups with high vocabulary levels*. Table 28 in Chapter IV and the fifth and sixth columns of Table 32 above provide the information regarding rankings for VLS use by these learners. According to this information, the rankings for four out of the total six sub-categories of VLSs (all except the fifth and sixth) for female and male participants in the study were exactly the same. To be more precise, the VLS sub-category with the top ranking for both gender groups was discovery-determination strategies. Next in the ranking came consolidation-metacognitive strategies and consolidation-memory strategies for both groups of learners. Discovery-social strategies were the VLSs used with the fourth ranking by both gender groups. While consolidation-social and consolidation-cognitive strategies had the last two rankings as used by female participants with high vocabulary levels, respectively, the rankings for the male participants were the opposite. As for the significance of the difference in VLS use by higher-achieving female and male learners (as shown on Table 28 in Chapter IV), the difference in VLS use was significant in two (discovery-social and consolidation-memory) out of the total six VLS sub-categories as well as the general VLS use averages by the two groups.

A comparison of all the female and male participants' rankings for VLS use (as discussed under the second sub-question of research above) with those of the high-level females and males reveals that the rankings were exactly the same for male learners (22 male participants with high vocabulary levels and the total 58 males) while there is difference in the rankings for 2 out of the total six VLS sub-categories. As for the ratios of participants with high vocabulary levels in terms of gender, while 31 (44%) of the 70 female participants had high vocabulary levels, 22 (38%) of the total 58 male participants had high vocabulary levels.

9th sub-question of the research

The ninth and last sub-question of the research deals with VLS use patterns by arts & humanities and science major learners with high vocabulary levels in the *(a) ESL, (b) EFL contexts as well as (c) the differences in VLS use between the members of each academic major group*. The last two columns of Table 32 provide the rankings of the six VLS sub-categories for arts & humanities and science major learners with high vocabulary levels. According to this, three of the VLS rankings were the same for higher-achieving arts & humanities and science major learners. The most frequently used VLS sub-category by both higher-achiever academic majors was discovery-determination strategies. Next in the ranking for both groups came consolidation-metacognitive strategies. While the VLS sub-category with the third ranking was consolidation-memory for the arts & humanities major learners, consolidation-cognitive strategies had the third ranking for higher-achiever science major learners. The VLS subcategory with the fourth ranking as shared by both academic major groups was discovery-social strategies. The VLS sub-categories with the fifth and sixth ranking for higher-achiever arts & humanities major learners were consolidation-social and consolidation-cognitive strategies, respectively. Science major learners with high vocabulary levels, on the other hand, employed consolidation-memory and consolidation-social strategies with the fifth and sixth (last) rankings, respectively.

Despite the difference in the rankings, the difference in VLS use between academic majors did not make a significant effect on VLS use by learners with high vocabulary levels (as already shown on Table 28 in Chapter IV). This finding is parallel with the findings of Gu's (2002) and Meshkat and Khanjani's (2014), who also concluded that the relationship between academic major and strategy use was not significant. However, just like gender, the relationship between learners' academic majors and their strategy use is also a controversial issue which has long been investigated and discussed in the literature, and research findings

proving the relationship as significant are also abundant in the literature (Bernardo and Gonzales, 2009; Boonkongsaen & Intaraprasert, 2014; Chiang, 2004; Liao, 2004; Mingsakoon, 2002; Mochizuki, 1999, Muniandy & Shuib, 2016; Peacock & Ho, 2003; Zhang, 2009). With the achievement factor added into this complex net of relationships, the effect of academic orientation on learners VLS use gets even more fluid and, thus, more studies in the area are required.

5.2. Limitations of the Study

The study was limited to graduate students pursuing their master's or doctorate education at 21 universities in the UK and 27 universities in Turkey. The participants in the study were determined via the random cluster sampling method among the probability sampling techniques. Language context was first divided into two as ESL and EFL contexts, and then as many graduate students as possible from each context were recruited. In other words, the students recruited were convenience samples. The participants in the study included a total of 128 (49 EFL and 79 ESL) students, which was not a large sample. Thus, the findings of this descriptive study cannot be generalized to all ESL and EFL language learning contexts. Moreover, the data of the study were collected via the Vocabulary Learning Strategies Questionnaire (VLSQ) and the Vocabulary Levels Test (VLT), which only provided quantitative data. Gathering some qualitative data through think-aloud-protocols or follow-up interviews could well provide important data. However, it was almost impossible in the case of this study to collect this kind of data as the participants came from two countries and a total of 48 universities. To sum up, the limitations of this study involved the somewhat limited number of participants and the kind of data collected (only quantitative instead of both quantitative and qualitative).

5.3. Conclusion

This research aimed to compare the vocabulary learning strategies (VLSs) used by graduate level Turkish ESL learners pursuing their master's or doctorate education in the UK (ESL) and in Turkey (EFL), and to get an insight into the relationship between VLS use in the two language learning contexts and vocabulary achievement. The research yielded findings on three levels: (1) learners' frequency of VLS use, (2) their perceptions of VLS usefulness, and (3) VLS use patterns of the learners with high vocabulary levels. Information on each of these three levels has been discussed above in relation to learners' language

learning context (ESL vs. EFL), gender (female vs. male), and academic major (arts & humanities vs. science) in light of the literature.

To start with, the analyses conducted to discover graduate level learners' frequencies of VLS use yielded a significant difference between ESL and EFL learners' frequency of VLS use in favour of EFL learners. In other words, the learners in the EFL context deployed VLSs more frequently than their counterparts in the ESL context. The difference in VLS use was still significant when the effect of learners' vocabulary levels was eliminated by using special statistical techniques, indicating that it is the language learning context rather than other factors that actually cause the difference in strategy use in the two contexts. This shows that learners in the EFL context try to compensate for the lack of input in the EFL context by employing more VLSs than their counterparts in the ESL context, and to overcome the disadvantages of the EFL context as opposed to the advantages the ESL context provides its learners with. This finding is in line with the views of many scholars (Crookes, Davis, & LoCastro, 1994; Gu, 1996, 2003a; Riley & Harsh, 1999) who pointed out that the strategies learners need to employ in ESL and EFL contexts are different from each other. There is also some empirical evidence (Anderson, 2004; Fatemipour, 2013; Kojic-Sabo & Lightbown, 1999; Riley & Harsh, 1999) regarding the significance of language learning context on learners' strategy use in the literature.

The difference between female and male graduate learners' frequency of VLS use was not found to be significant. In this respect, this finding is in line with that of Abu Shmais (2003), Ahour & Abdi (2015), Sung (2011), and Tsai & Chang (2009), whose research also revealed gender to be a non-significant factor in strategy use. However, the effect of gender on strategy use has always been a controversial issue in the literature. There are also a number of studies that found a significant relationship between gender and strategy use, some in favour of females (Ehrman & Oxford, 1989; Green & Oxford, 1995), some others in favour of males (Tercanlioglu, 2004; Wharton, 2000). This prompts the need for further research on the relationship between gender and strategy use.

Another finding was that there was no significant difference between arts & humanities major and science major graduate learners' frequency of VLS use. In other words, academic major did not make a significant effect on learners' VLS use, which is in parallel with the findings of Gu's (2002) and Meshkat and Khanjani's (2014), who also concluded that the relationship between academic major and strategy use was not significant. However, just like gender, the relationship between learners' academic majors and their strategy use is also a controversial issue which has long been investigated and discussed in

the literature, and research findings proving the relationship as significant are also abundant in the literature (Bernardo and Gonzales, 2009; Boonkongsaen & Intaraprasert, 2014; Chiang, 2004; Liao, 2004; Mingsakoon, 2002; Mochizuki, 1999, Muniandy & Shuib, 2016; Peacock & Ho, 2003; Zhang, 2009). In conclusion, further research into the relationship between academic orientation and VLS use is necessary.

In regards to learners' perceptions of VLS usefulness, the findings of the study revealed that there was a significant difference between ESL and EFL learners' perceptions of VLS usefulness in favour of the EFL learners. This shows that the significance in the difference in VLS use between the two contexts reflects on the perceived VLS usefulness. That is, the participants in the EFL context most probably realised the disadvantages of their context in terms of lack of input, and depended more on VLSs to compensate for the disadvantages of their language learning context. This, in turn, seems to have reflected on EFL learners' perceptions of VLS usefulness, resulting in perceiving VLSs more useful than their ESL counterparts did.

The study revealed a significant difference between female and male graduate learners' perceptions of VLS usefulness in two of the six VLS sub-categories; namely, discovery-determination strategies and consolidation-metacognitive strategies. However, when the average means of the two groups were considered, the difference was not statistically significant. Since it is the difference between the general averages (non-significant in this case) that counts, we can say that gender did not make any significant difference in learners' perceptions of VLS usefulness, just like it did not in VLS use. Also, despite the differences in the rankings of the perceived usefulness of VLSs by arts & humanities and science major graduate learners, the differences in the mean scores for these perceptions were not significant. This is in parallel with the finding of this research regarding the non-significant relationship between VLS use and academic orientation.

Within the scope of the research, analyses for VLS use by learners with high vocabulary levels were also conducted besides the analyses on the whole sample. The results revealed that there was significant difference between frequency of VLS use by the ESL and EFL learners with a high level of vocabulary in almost all (5 out of the total 6) VLS sub-categories (all except consolidation-social strategies) as well as average means of the two groups in favour of EFL learners. This shows that language learning context stands out as a factor that effects learners' VLS use patterns even when only the higher-achiever learners are analysed.

The difference between frequency of VLS use of the female and male graduate learners with high vocabulary levels was significant in two of the six VLS sub-categories; namely, discovery-social strategies and consolidation-memory strategies, in favour of the female learners. The difference was also significant when the average means of the two groups were concerned. In other words, the female participants with high vocabulary levels had significantly higher mean scores than their male counterparts in two of the total six VLS sub-categories as well as the general average scores. This finding is interesting as the difference between the two gender groups was not significant when all the participants were included. This actually means either that the effect of the gender factor on VLS use is a controversial issue and more research in the field is required, or that VLS use research yields more reliable results when learners with similar vocabulary or proficiency levels are investigated. In any case, although the relationship between gender and VLS use remains to be a controversial issue in the literature, studies revealing female dominance over males in strategy use (Ehrman & Oxford, 1989; Green & Oxford, 1995, and many more) are more abundant than those concluding male dominance over females (Tercanlioglu, 2004; Wharton, 2000), or those revealing no significant difference between the two gender groups (Ahour & Abdi, 2015; Sung, 2011; Tsai & Chang, 2009).

The study revealed no significant difference between arts & humanities major and science major graduate learners' frequency of VLS use. In other words, academic major did not have a significant effect on VLS use by learners with high vocabulary levels, which is parallel with the findings of Gu's (2002) and Meshkat and Khanjani's (2014). However, just like gender, the relationship between learners' academic majors and their strategy use is also a controversial issue which has long been investigated and discussed in the literature, and research findings proving the relationship as significant are also abundant in the literature (Bernardo and Gonzales, 2009; Boonkongsaen & Intaraprasert, 2014; Chiang, 2004; Liao, 2004; Mingsakoon, 2002; Mochizuki, 1999, Muniandy & Shuib, 2016; Peacock & Ho, 2003; Zhang, 2009). With the achievement factor added into this complex net of relationships, the effect of academic orientation on learners VLS use gets even more fluid and, thus, more studies in the area are required.

Lastly, as a general observation, Turkish graduate learners (both when the overall group of participants and where only learners with high vocabulary levels are concerned) seem to underrate the importance of social strategies in vocabulary learning. They use (discovery and consolidation) social strategies with no higher ranking than fourth (out of the total six) at best, and fifth and sixth in most cases. These low rankings of use reflect on the

perceptions of usefulness as well. This finding is in tune with some other studies which were carried out in and out of Turkey (Amiran & Heshmatifar, 2013; Hismanoglu & Turan, 2019; Kafipour, Yazdi, Soori, & Shokrpour, 2011; Komol & Sripetpun, 2014; Şener, 2003), and which also reported social strategies to be the least frequently used VLS category.

Just as Catalan (2003) suggests, there is a link between culture and strategy use. Underrating the importance of social strategies seems to be a cultural tendency for the Turkish graduate learners recruited for this study. The reason behind this might be the educational system in Turkey regarding language education and standard (national) foreign language exams in Turkey. To be more precise, learners are not asked to display communicative (productive) skills such as listening and speaking, but are just required to comprehend written texts and choose from multiple options. This is the case in many standard English language exams in Turkey (such as YÖKDİL and YDS) as well as the exams given at schools at all educational levels. However, as Demirpolat (2015) states, this is not in line with the nature of language learning. Thus, Turkish learners of the English language *learn to ignore* the communicative purposes of the English language, and focus on comprehension of written texts. This tendency also reflects on vocabulary learning and Turkish learners, especially in the EFL context, learn and use words, at best, to comprehend written texts or for writing purposes rather than to productively use it for communicative purposes. Over the years, this seems to be part of the Turkish way of learning foreign languages affecting Turkish learners no matter whether they are in an EFL or ESL context. This *learnt reluctance* to use the language for communicative purposes is attributed by learners themselves to some *external factors* such as the Turkish education system, and the quality of teachers, and *internal factors* such as anxiety and poor motivation, but rarely to students themselves (Çelik & Bayraktar Çepni, 2020).

5.4. Pedagogical Implications and Suggestions

The current study investigated the vocabulary learning strategies (VLSs) used by Turkish graduate learners in two language learning contexts; namely, ESL (the UK) and EFL (Turkey). Besides a comparison of the VLSs used by learners in each context, a comparison of VLS use according to gender (female versus male) and academic major (arts & humanities versus science major learners) has been provided. The results yielded a significant difference between the two language learning contexts while a non-significant difference between the two gender groups or the two academic majors was noted. In light of

the research findings, the following pedagogical suggestions regarding vocabulary learning and instruction have been put forward:

First of all, integration of VLS instruction in coursebooks designed for graduate learners or in graduate school curriculums is highly recommended. In this respect, curriculum designers and coursebook writers should make VLS instruction a part of graduate programs. Language learners need to have the opportunity to explore and use the strategies that are found to be helpful and, in this respect, this study provides an overall understanding as to which strategies should be accentuated in VLS instruction. The findings of this study revealed that the most frequently used VLS sub-category by all the graduate learners (irrespective of the contextual differences in strategy use) was discovery-determination strategies. Discovery-determination strategies are used to determine the meaning of an unknown word at first encounter, and include mostly guessing strategies as well as dictionary strategies (Schmitt, 1997). On the other hand, the least frequently used VLSs were social strategies, most probably because graduate learners are more autonomous in vocabulary learning, and because most of their vocabulary learning takes place outside the classroom. However, equipping these students with a wide spectrum of VLSs and letting them test and discover the ones that work best for them is suggested. Many studies in the literature (Dreyer & Oxford, 1996; Gu, 2002; Kayad, 1999) show that almost all learners use strategies from all of the six strategy groups in Schmitt's (1997) classification in their learning process, though at different frequency levels.

Secondly, the differences in VLS use between the ESL and EFL contexts indicate that strategy instruction should be geared towards learners' individual or group needs just like it has been suggested by a number of studies in the literature (Field, 2000; Grenfell & Harris, 2002; Takeuchi, Griffiths, & Coyle, 2007). More frequent use of VLSs of all kinds in the EFL context, as compared to the ESL context (both by all learners and learners with high vocabulary levels), prompts the need to focus more on VLS instruction in the EFL context over the ESL context. In this respect, it is suggested that language teachers equip language learners, especially in the EFL context, with a wide range of VLSs to choose from according to their personal needs. Studies in the literature on VLSs used in ESL and EFL contexts have indicated that language learners differ in the range of strategies they use and the effectiveness with which they employ them (Gu & Johnson, 1996; Lawson & Hogben, 1996; Moir & Nation, 2002; Schmitt, 1997). Language learners can surely benefit from VLS instruction. Also, authenticating vocabulary teaching in the EFL context as much as possible to get rid of (at least) some of the disadvantages of the EFL context, as opposed to the ESL

context, can contribute to learner success. Creating English-medium zones in schools where all communication is carried out in the English language is one option. In this respect, school administrators as well as language teachers should take the initiative to enrich EFL learners' physical environment.

Moreover, due to the different rankings of the VLS sub-categories in the ESL and EFL contexts, different VLS sub-categories can be emphasized in each context. Discovery-determination strategies, which are used to determine the meaning of an unknown word at first encounter, include mostly guessing strategies as well as dictionary strategies (Schmitt, 1997). Apparently, these types of strategies are the handiest strategy category for ESL learners, who meet new words on a daily basis. ESL learners also make use of social strategies due to the nature of their language learning context. On the other hand, EFL learners used consolidation-metacognitive strategies, which “involve a deeper processing of the information and require planning, monitoring and evaluating” (Schmitt, 1997, p. 203) most frequently, most probably to increase their chances of word retention, knowing that the context would not provide them with this opportunity. Metacognitive strategies would include strategies such as *using LS media*, *using spaced word practice*, and *continuing to study the new word over time* to consolidate the word meaning in the memory

Another recommendation is that Turkish learners of the English language from all educational levels learn to value and use social strategies more frequently. The fact that Turkish learners deploy social VLSs less frequently, as also stated by Hismanoglu & Turan (2019) and Şener (2003), and perceive them to be less useful than other VLSs sub-categories does not necessarily mean that they are of less value. This only shows Turkish learners' cultural approach to learning vocabulary and foreign languages in general since not only the participants with high vocabulary levels but all the participants in the study also report less use of social strategies than other VLS sub-categories.

The fact that there was no significant difference in VLS use between the two genders or members of the two academic majors; namely, arts & humanities and science majors, indicates that gender and academic major differences among learners can be disregarded in VLS instruction. However, there might be factors other than the ones investigated within the scope of this particular study that affect graduate learners' VLS use. In this respect, equipping graduate learners with a wide range of VLSs to choose from according to their personal needs is suggested.

Lastly, the literature of VLSs suggests that there is a strong relationship between one's vocabulary level and the VLSs they use, and that overall strategy use by learners at

higher proficiency levels tends to be more frequent and at a much wider range (than those at lower proficiency levels) (Halbach, 2000; Jeon, 2007; Jurkovic, 2006; Park, 2001; Schmitt, 1997). It is a mystery which one leads to which, though. In other words, it is not certain whether learners use VLSs more frequently because they are at a higher proficiency level, or whether they are at a higher proficiency level due to their more frequent use of VLSs. In this respect, whatever the case is, language teachers are advised to instruct learners in VLS use and provide learners with the opportunity to explore different VLSs. Hence, this study has pedagogical importance in terms of language learners, teachers and school administrators as well as for curriculum designers and coursebook writers.

5.5. Suggestions for Further Research

In light of the research findings, more research on the differences between other ESL (such as the USA, Canada, etc.) and EFL contexts (any country where another language other than English is the native language, and English is taught as a foreign language) in terms of VLS use is suggested. However, researchers should keep in mind that recruiting learners with the same cultural/ethnic background will probably yield more reliable results due to the possible relationship between culture and strategy use as Catalan (2003) points out. In addition to culture, the VLS literature suggests that another factor that plays a role in the employment of VLSs is learners' language proficiency or vocabulary level. Learners of the same vocabulary or proficiency level tend to use similar VLSs. Language learners with higher proficiency levels employ VLSs more frequently and at a much wider range as compared to their counterparts at lower proficiency levels (Halbach, 2000; Jeon, 2007; Jurkovic, 2006; Park, 2001; Schmitt, 1997). In this respect, researchers are suggested to either recruit learners of the same vocabulary or proficiency levels, or compare and contrast VLS use by learners of different levels.

Although learning about what the higher-achieving learner does can help us a great deal to pinpoint the effective VLSs, exploring what the weak learner does could well improve our understanding of the way strategies work. In this respect, it is advocated that researchers in the field investigate the differences in VLS use between lower-achiever learners and higher-achievers in order to determine the effective strategies. Moreover, this piece of research investigated graduate (master's and doctorate) level learners' VLS use patterns. A similar study with learners from different educational levels (such as high school or under-graduate learners) could also be conducted to evaluate the effect of language learning context on VLS use of learners from a different educational level.

Also, this piece of research carried out categorical analysis of VLSs like many other studies in the literature did (Ellis & Shintani, 2014; Kayacıoğlu, 2013; etc.). Analysis of micro strategy use by graduate learners (and also learners from different educational levels) is also advised to get a deeper insight into the way VLSs work as well as exploring effective VLSs as used by learners with high vocabulary levels. In addition to collecting quantitative data from the participants (using questionnaires and tests), qualitative data could be collected via interviews or think-aloud protocols to gain a more comprehensive understanding of the results. That is why further research into this topic is recommended.

Taking the present situation of the Turkish educational system into account (with many Syrian immigrant students added to the equation), teachers and school administrators are struggling with the difficulties of a multi-cultural and multi-lingual school atmosphere. For the language teacher, instructing learners with VLSs that are strongly linked to culture, as Catalan (2003) points out, is a true challenge. Moreover, pre-service teacher education falls short in preparing teacher candidates for diversity in the classroom and for class situations like multi-culturalism and multi-lingualism, which result in novice teachers' being left on their own to solve these problems. In this respect, it is put forward that premium care is given to vocabulary, which is a such a crucial part of language that without it "one cannot speak, understand, read or write a foreign language" (Rubin & Thompson, 1994, p. 79) and its instruction, starting from the first levels of the educational system by policy makers, curriculum designers, coursebook writers, school administrators and language teachers. VLS instruction should be a part of the language education for students as early as possible and they should be equipped with a variety of strategies to choose from according to their personal or group needs. In this respect, strategy instruction in each context should be tailor-made in line with learner needs. Language teachers, course book writers and curriculum designers should take this into account. It is hoped that these research findings contribute to the field of English vocabulary teaching and learning.

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APPENDICES

APPENDIX 1.

ACADEMIC C.V. OF THE RESEARCHER

Personal Information			
Name - Surname	Vesile GÜL YILMAZ		
Email address / Web Page	_____		
Language	English, German		
Specialization	English Language Teaching, Methodology, Vocabulary		
Educational Information			
	University	Department	Year
Bachelor's Degree	Dokuz Eylul University	English Language Teaching	2004
Master's Degree	Dokuz Eylul University	English Language Teaching	2008
MA Thesis Title	Boş Zaman Etkinliklerinin Okuduğunu Anlama ve Okumaya Yönelik Tutumlar Üzerindeki Etkililiği		
MA Thesis Supervisor	Yrd. Doç. Dr. Kadim ÖZTÜRK		
Academic Studies			
ARTICLES *1) Çöker, B., & Yılmaz, V. G. (2020). Vocabulary learning strategies of the 'good' learner. <i>Turkish Studies</i>, 15(5), 2281-2295. https://dx.doi.org/10.7827/TurkishStudies.45174 2) Yılmaz, V. G., & Çöker, B. (2020). Üniversite hazırlık programı öğrencilerinin İngilizce okumaya yönelik tutumlarının incelenmesi. <i>Turkish Studies – Educational Sciences</i>, 15(5), 3375-3386. https://dx.doi.org/10.47423/TurkishStudies.45510 *3) Gül Yılmaz, V., & Çöker, B. (2021). Effective VLSs in language learning: An analysis of micro strategy use. <i>Turkish Studies</i>, 16(1), 219-235 https://dx.doi.org/10.7827/TurkishStudies.48622			
Membership to Scientific Societies			
None			
Awards			
None			

APPENDIX 2. KİŞİSEL BİLGİ FORMU

“İngilizceyi Türkiye’de “Yabancı Dil” ve İngiltere’de “İkinci Dil” Olarak Öğrenen Türk Öğrencilerin Kullandıkları Sözcük Öğrenme Stratejilerinin Karşılaştırılması”

Vesile GÜL YILMAZ

Exeter Üniversitesi, Sosyal ve Uluslararası Çalışmalar Bölümü

Bu form, yüksek lisans ya da doktora eğitimini İngiltere’de almakta olan Türk öğrenciler ile bu eğitimi Dokuz Eylül Üniversitesi’nde almakta olan öğrencilerin kullandıkları İngilizce sözcük öğrenme stratejilerini tespit etmek üzere yapılan çalışmanın bir parçasıdır. Aşağıda belirtilen soruları özenle cevaplamanız çalışma için oldukça önemlidir. Vereceğiniz bilgiler yalnızca bu çalışma için kullanılacaktır.

1. Adınız Soyadınız:
2. Cinsiyetiniz:
3. Yaşınız:
4. Okumakta olduğunuz üniversite:
5. Bölümünüz:
6. Eğitim düzeyiniz: a) Yüksek Lisans b) Doktora

APPENDIX 3. PERSONAL DATA FORM

“A Comparative Study on the Use of Vocabulary Strategies by Turkish ESL Learners in the UK and EFL Learners in Turkey”

Vesile GÜL YILMAZ

University of Exeter, Social and International Studies

This form is a part of a study carried out to investigate the vocabulary learning strategies used by graduate level Turkish students attending a Turkish or a UK university. It is of great importance for the study that you sincerely respond to the questions below. The data you are going to provide will only be used for this particular study.

1. Full name:

2. Gender:

3. Age:

4. Name of the university you are attending:

5. Department:

6. Educational Level: a) Masters b) Doctorate

		Never	Seldom	Sometimes	Often	Very often	Not at all useful	Not very useful	Not sure	Somewhat useful	Very useful
C-MEM	27. I try to retrieve a word by its physical location on the page (of the book or notebook).										
C-MEM	28. I revise vocabulary in context (e.g. in a sentence).										
C-MEM	29. I learn words by making up a story with them.										
C-MEM	30. I learn the word together with its spelling.										
C-MEM	31. I learn how to pronounce the word correctly.										
C-MEM	32. I read the words aloud as I am studying them.										
C-MEM	33. As I am studying a word, I try to visualize its spelling in my mind.										
C-MEM	34. I study a word by underlining its initial letter.										
C-MEM	35. I try to learn the words that fall into my field of interest even when they are not included in the textbooks.										

		Never	Seldom	Sometimes	Often	Very often	Not at all useful	Not very useful	Not sure	Somewhat useful	Very useful
C-MET	51. I study words using my vocabulary notebook that I keep for new words I learn.										
C-MET	52. I learn the meaning of the English words that I come across with in my daily life (e.g. in the name of a cafe, on the poster of a film, in a song).										
C-MET	53. I rehearse vocabulary by solving vocabulary tests.										
C-MET	54. I rehearse vocabulary in an organised way with certain time intervals (such as, right after class, a day, a week, and/or a month later).										

APPENDIX 6. SCHMITT'S VLS CATEGORIES AND PRESENT VLSQ ITEMS

A. Strategies for discovering a word

a. Determination Strategies

- Analyse part of speech
- D-DET 1 *(Item 1) Kelimenin anlamını, sözcük türünü (örneğin; isim, fiil, sıfat, vb.) inceleyerek tahmin etmeye çalışırım.*
- Affixes and roots
- D-DET 2 *(Item 2) Kelimenin anlamını ön ek, son ek ve kökünü inceleyerek tahmin etmeye çalışırım (örneğin; 'help' kelimesinden 'unhelpful' kelimesinin anlamını tahmin etme).*
- Check for L1 cognate
- D-DET 3 *(Item 3) Kelimenin anlamını varsa Türkçede aynı kökten gelen ve benzer anlamı olan bir başka kelimeyi düşünerek tahmin etmeye çalışırım (örneğin; 'action – aksiyon', 'decoration – dekorasyon vb.).*
- Analyse pictures and gestures
- D-DET 4 *(Item 4) Kelimenin anlamını, kullanıldığı yerde bulunan mevcut resim, şekil ve hareketleri inceleyerek tahmin etmeye çalışırım.*
- Guess from textual context
- D-DET 5 *(Item 5) Kelimenin anlamını metin içerisinde (örneğin; etrafındaki diğer kelime ve cümlelerden) tahmin etmeye çalışırım.*
- Bilingual dictionary
- D-DET 6 *(Item 6) Kelimenin anlamına İngilizce-Türkçe / Türkçe- İngilizce sözlüklerden bakarım.*
- Monolingual dictionary
- D-DET 7 *(Item 7) Kelimenin anlamına İngilizce-İngilizce sözlüklerden bakarım.*
- Word lists
- D-DET 8 **NO ITEM** (See C-COG 47: word lists - repetition)
- Flash cards
- D-DET 9 **NO ITEM** (See C-COG 48: flash cards - repetition)

b. Social strategies

- Ask teacher for L1 translation
- D-SOC 10 *(Item 8) Dersin hocasından kelimeyi Türkçeye çevirmesini isterim.*

- Ask teacher for paraphrase or synonym of new word
 (Item 9) Dersin hocasına kelimenin İngilizce eş/zıt anlamını sorarım.
 (Item 10) Dersin hocasından kelimeyi İngilizce olarak açıklamasını ya da tanımlamasını isterim.
- Ask teacher for a sentence including new word
 (Item 11) Dersin hocasından kelimeyi (İngilizce) cümle içinde kullanmasını isterim.
- Ask classmates for meaning
 (Item 12) Kelimenin anlamını (sınıf) arkadaşlarıma sorarım. [11]
 (Item 14) Karşılıklı konuşma sırasında, bilmediğim bir İngilizce kelimenin anlamını karşılıklı konuştuğum kişiye sorarım.
- Discover new meaning through group work activity
 (Item 13) Kelimenin anlamını (sınıf içi) grup çalışmaları yaparken keşfetmeye çalışırım.

B. Strategies for consolidating a word once it has been encountered

a. Social strategies

- C-SOC 15 Study and practice meaning in a group
 (Item 15) Öğrendiğim kelimeleri okuldan arkadaşlarımla çalışır ve pratik yaparım.
- C-SOC 16 Teacher checks students' flashcards or word lists for accuracy
 (Item 16) Hazırladığım kelime defterleri, listeleri ya da küçük kelime kartlarının doğruluğunu dersin hocasına kontrol ettiririm.
- C-SOC 17 Interact with native speakers
 (Item 17) Yeni öğrendiğim kelimeleri anadili İngilizce olan kişilerle ya da yabancılarla yüz yüze iletişim kurarken kullanmaya çalışırım.
 (Item 18) Yeni öğrendiğim kelimeleri anadili İngilizce olan kişilerle ya da yabancılarla yazışırken (e-posta, mektup, chat, mesaj, v.b.) kullanmaya çalışırım.

b. Memory strategies

- C-MEM 18 Study word with a pictorial representation of its meaning
 (Item 19) Yeni öğrendiğim bir kelimeyi, anlamını yansıtan resimle birlikte çalışırım.

- C-MEM 19 Image word's meaning
(Item 20) Kelimeleri kafamda oluşturduğum imgeler (hayali resimler) ile ilişkilendirerek çalışırım (örneğin; 'zirve' anlamındaki 'peak' kelimesi için zihninde 'zirvesi kar ile kaplı bir dağ resmi' canlandırma).
- C-MEM 20 Connect word to a personal experience
(Item 21) Kelimeyi kişisel deneyimlerim veya anılarımla (örneğin; 'tavşan' anlamındaki 'bunny' kelimesini 'çocukken izlediğim Bugs Bunny adlı çizgi film ile) ilişkilendirerek öğrenirim.
- C-MEM 21 Associate the word with its coordinates
(Item 22) Kelimeyi konu olarak bağlantılı, bildiğim diğer İngilizce kelimelerle ilişkilendirerek öğrenirim (örneğin; 'kız yeğen' anlamındaki 'niece' kelimesini 'uncle, aunt, daughter' gibi diğer akrabalık kelimeleriyle ilişkilendirme).
- C-MEM 22 Connect the word to its synonyms and antonyms
(Item 23) Kelimeyi, bildiğim İngilizce eş ve zıt anlamlarıyla eşleştirerek öğrenirim (örneğin; 'bright X dark', 'small=short, little').
- C-MEM 23 Use semantic maps
(Item 24) Konu ve anlam olarak bağlantılı kelimeleri zihnimde bir harita oluşturarak çalışırım (örneğin; 'ulaşım' anlamındaki 'transportation' sözcüğünü önce 'land', 'air' ve 'water' olmak üzere üçe, sonra her birini kendisiyle ilgili ulaşım araçlarını gösterir şekilde tekrar ayırarak zihinsel bir harita oluşturma).
- C-MEM 24 Use scales' for gradable adjectives
(Item 25) Derecelendirilebilen sıfatları derecelerine göre sıralayarak çalışırım (örneğin; çok soğuktan sıcaklığa doğru sıfatları 'freezing > cold > cool > warm > hot > burning' şeklinde sıralama).
- C-MEM 25 Pegword method
NO ITEM
- C-MEM 26 Loci method
NO ITEM
- C-MEM 27 Group words together
(Item 26) Kelimeleri gruplandırarak öğrenirim (örneğin; hava koşulları ile ilgili isimler 'wind, rain, snow', sıfatlar 'windy, rainy, snowy' gibi).
- C-MEM 28 To study them spatially on page
(Item 27) Kelimenin defterdeki ya da kitaptaki yerini hatırlayıp, kelimeyi hatırlamaya çalışırım.
- C-MEM 29 Use new word in sentences
(Item 28) Kelimeleri cümle içerisinde kullanarak çalışırım.

- C-MEM 30 Group words together within a storyline
(Item 29) Kelimeleri onlarla bir hikaye oluşturarak öğrenirim
- C-MEM 31 Study word spelling
(Item 30) *Kelimeyi yazılışıyla birlikte öğrenirim.*
- C-MEM 32 Study sound of word
(Item 31) *Kelimeyi doğru telaffuz etmeyi öğrenirim.*
- C-MEM 33 Say word aloud
(Item 32) *Kelimeyi çalışırken onu yüksek sesle söylerim.*
- C-MEM 34 Image of word form
(Item 33) *Kelimenin yazılış biçimini kafamda görselleştirerek gözümün önünde canlandırmaya çalışırım.*
- C-MEM 35 Underline initial letter
(Item 34) *Kelimeyi ilk harfinin altını çizerek çalışırım.*
- C-MEM 36 Configuration
(Item 35) *Kelimeleri sayfa üzerinde sütunlar yerine farklı şekillerde (örneğin; dikdörtgen, daire, üçgen, çapraz gibi) yazarak çalışırım.*
- C-MEM 37 Use keyword method
(Think of a L1 word that sounds similar to the new L2 word. Then make a single mental image combining the meanings of both words. When you hear the new L2 word, this linking image can be remembered, bringing with it a prompt for the L2 word's meaning)
(Item 36) *Kelimeyi anahtar kelime yöntemiyle hatırlarım (örneğin; 'sert, ağır' anlamındaki 'harsh' kelimesini, yazılış ve okunuşu benzer, anlamı farklı Türkçe 'harç' kelimesi ile eşleştirip zihnimde 'ağır öğrenci harçları' kavramı ile ilişkilendirme).*
- C-MEM 38 Affixes and roots (remembering)
(Item 37) *Kelimenin anlamını ön ek, son ek ve kökünden faydalanarak hatırlarım (örneğin; 'unhappiness' kelimesinin anlamını 'un-' olumsuzluk ve '-ness' isim yapma eklerinden yararlanarak hatırlama).*
- C-MEM 39 Parts of speech (remembering)
(Item 38) *Kelimeyi, sözcük türünden (örneğin; isim, fiil, sıfat, vb.) faydalanarak hatırlarım.*
- C-MEM 40 Paraphrase word meaning
(Item 39) *Kelimeyi farklı sözcüklerle ifade ederek pekiştiririm (örneğin; 'parents' kelimesini 'a person's father and mother' şeklinde ifade etme).*

- C-MEM 41 Use cognates in study
(Item 40) Kelimeyi (varsa) Türkçedeki bir kelimeye benzeterek çalışırım (örneğin; action-aksiyon, decoration-dekorasyon vb.).
- C-MEM 42 Learn words of an idiom together
(Item 41) Kelimeyi, içinde geçtiği ifade ya da cümle (örneğin; bir tekerleme, deyim, atasözü, şiir, şarkı sözü, film repliği vb.) ile birlikte çalışırım.
- C-MEM 43 Use physical action
(Item 42) Kelimeyi fiziksel hareketlerden faydalanarak öğrenirim (örneğin; 'push-itmek' fiilini öğrenirken 'itme' eylemi gerçekleştirme).
- C-MEM 44 Use semantic feature grids
(Item 43) Anlamca yakın olan kelimeleri anlamsal özellik tablolarından faydalanarak pekiştiririm. Örneğin;

	wrist	wall	table
'watch'	✓		
'clock'		✓	✓

c. Cognitive strategies

- C-COG 45 Verbal repetition
NO ITEM (See C-MEM 33: say word aloud)
- C-COG 46 Written repetition
(Item 44) Kelimeleri tekrar tekrar yazarak çalışırım.
- C-COG 47 Word lists
(Item 45) Kelime listeleri kullanarak kelime tekrarı yaparım.
- C-COG 48 Flash cards
(Item 46) Küçük kelime kartlarını kullanarak kelime tekrarı yaparım.
- C-COG 49 Note-taking
(Item 47) Kelimeleri ders esnasında aldığım notlardan çalışırım.
- C-COG 50 Use vocabulary section in textbooks
(Item 48) Kelimeleri ders kitaplarının kelimeyle ilgili bölümlerini (örneğin; sonundaki kelime bölümünü ya da içindeki CD/DVD'yi) kullanarak çalışırım.
- C-COG 51 Listen to tape of word lists
(Item 49) Kelime listelerini sesli olarak kaydedip tekrar tekrar dinleyerek çalışırım.
- C-COG 52 Put L2 labels on physical objects
(Item 50) Kelimeleri nesnelerin üzerine İngilizce karşılıklarını yazıp yapıştırarak çalışırım.

- C-COG 53 Keep vocabulary notebook
(Item 51) Kelimeleri yeni öğrendiğim kelimeler için ayrıca tuttuğum kelime defterinden çalışırım.

d. Metacognitive strategies

- C-MET 54 Use L2 media (songs, movies, newscasts, etc.)
(Item 52) Günlük yaşamımda (örneğin bir kafenin tabelasında, bir filmin afişinde, bir şarkıda) karşıma çıkan İngilizce kelimelerin anlamını araştırıp öğrenirim.
- C-MET 55 Testing oneself with word tests
(Item 53) Kelime testleri çözerek kelime tekrarı yaparım.
- C-MET 56 Use spaced word practice
NO ITEM
- C-MET 57 Skip/pass new word
NO ITEM
- C-MET 58 Continue to study word over time
(Item 54) Kelimeleri planlı bir şekilde ve belirli aralıklarla (örneğin; dersten hemen sonra, bir gün, bir hafta, bir ay sonra vs.) çalışarak öğrenirim.

APPENDIX 7. VOCABULARY LEVELS TEST

Bu ölçek, yüksek lisans ya da doktora eğitimini İngiltere’de almakta olan Türk öğrenciler ile bu eğitimi Türkiye’deki bir üniversitede almakta olan öğrencilerin İngilizce kelime düzeylerini belirlemeyi amaçlamaktadır. Bu testte sizden istenen verilen anlamların yanına o anlamı karşılayan kelimeyi bularak yerleştirmenizdir. Aşağıdaki örnek size yardımcı olacaktır.

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

Version 1 The 2,000 word-level

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

1 adopt
 2 climb _____ go up
 3 examine _____ look at closely
 4 pour _____ be on every side
 5 satisfy
 6 surround

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

1 bake
 2 connect _____ join together
 3 inquire _____ walk without purpose
 4 limit _____ keep within a certain size
 5 recognize
 6 wander

1 cap
 2 education _____ teaching and learning
 3 journey _____ numbers to measure with
 4 parent _____ going to a far place
 5 scale
 6 trick

1 burst
 2 concern _____ break open
 3 deliver _____ make better
 4 fold _____ take something to someone
 5 improve
 6 urge

1 attack
 2 charm _____ gold and silver
 3 lack _____ pleasing quality
 4 pen _____ not having something
 5 shadow
 6 treasure

1 original
 2 private _____ first
 3 royal _____ not public
 4 slow _____ all added together
 5 sorry
 6 total

1 cream
 2 factory _____ part of milk
 3 nail _____ a lot of money
 4 pupil _____ person who is studying
 5 sacrifice
 6 wealth

1 brave
 2 electric _____ commonly done
 3 firm _____ wanting food
 4 hungry _____ having no fear
 5 local
 6 usual

Version 1 The 3,000 word-level

- | | | | |
|--------------|--|---------------|-----------------------------|
| 1 belt | | 1 betray | |
| 2 climate | _____ idea | 2 dispose | _____ frighten |
| 3 executive | _____ inner surface of your hand | 3 embrace | _____ say publicly |
| 4 notion | _____ strip of leather worn around the waist | 4 injure | _____ hurt seriously |
| 5 palm | | 5 proclaim | |
| 6 victim | | 6 scare | |
| | | | |
| | | 1 encounter | |
| 1 acid | | 2 illustrate | _____ meet |
| 2 bishop | _____ cold feeling | 3 inspire | _____ beg for help |
| 3 chill | _____ farm animal | 4 plead | _____ close completely |
| 4 ox | _____ organization or framework | 5 seal | |
| 5 ridge | | 6 shift | |
| 6 structure | | | |
| | | 1 assist | |
| 1 bench | | 2 bother | _____ help |
| 2 charity | _____ long seat | 3 condemn | _____ cut neatly |
| 3 jar | _____ help to the poor | 4 erect | _____ spin around quickly |
| 4 mate | _____ part of a country | 5 trim | |
| 5 mirror | | 6 whirl | |
| 6 province | | | |
| | | 1 annual | |
| 1 boot | | 2 concealed | _____ wild |
| 2 device | _____ army officer | 3 definite | _____ clear and certain |
| 3 lieutenant | _____ a kind of stone | 4 mental | _____ happening once a year |
| 4 marble | _____ tube through which blood flows | 5 previous | |
| 5 phrase | | 6 savage | |
| 6 vein | | | |
| | | 1 dim | |
| | | 2 junior | _____ strange |
| | | 3 magnificent | _____ wonderful |
| | | 4 maternal | _____ not clearly lit |
| | | 5 odd | |
| | | 6 weary | |
| | | | |
| 1 apartment | | | |
| 2 candle | _____ a place to live | | |
| 3 draft | _____ chance of something happening | | |
| 4 horror | _____ first rough form of something written | | |
| 5 prospect | | | |
| 6 timber | | | |

Version 1 The 5,000 word-level

1 balloon		1 blend	
2 federation	_____ bucket	2 devise	_____ mix together
3 novelty	_____ unusual interesting thing	3 hug	_____ plan or invent
4 pail	_____ rubber bag that is filled	4 lease	_____ hold tightly in your arms
with air		5 plague	
5 veteran		6 reject	
6 ward			

1 alcohol		1 abolish	
2 apron	_____ stage of development	2 drip	_____ bring to an end by law
3 hip	_____ state of untidiness or dirtiness	3 insert	_____ guess about the future
4 lure	_____ cloth worn in front to protect your clothes	4 predict	_____ calm or comfort someone
5 mess		5 soothe	
6 phase		6 thrive	

1 apparatus		1 bleed	
2 compliment	_____ expression of admiration	2 collapse	_____ come before
3 ledge	_____ set of instruments or machinery	3 precede	_____ fall down suddenly
4 revenue	_____ money received by the Government	4 reject	_____ move with quick steps
5 scrap		and jumps	
6 tile		5 skip	
		6 tease	

1 bulb		1 casual	
2 document	_____ female horse	2 desolate	_____ sweet-smelling
3 legion	_____ large group of soldiers or people	3 fragrant	_____ only one of its kind
4 mare	_____ a paper that provides information	4 radical	_____ good for your health
5 pulse		5 unique	
6 tub		6 wholesome	

1 concrete		1 gloomy	
2 era	_____ circular shape	2 gross	_____ empty
3 fiber	_____ top of a mountain	3 infinite	_____ dark or sad
4 loop	_____ a long period of time	4 limp	_____ without end
5 plank		5 slim	
6 summit		6 vacant	

Version 1 The 10,000 word-level

1 antics		1 acquiesce	
2 batch	_____ foolish behavior	2 bask	_____ to accept without protest
3 connoisseur	_____ a group of things	3 crease	_____ sit or lie enjoying warmth
4 foreboding	_____ person with a good knowledge of art or music	4 demolish	_____ make a fold on cloth or paper
5 haunch		5 overhaul	
6 scaffold		6 rape	
1 auspices		1 blaspheme	
2 dregs	_____ confused mixture	2 endorse	_____ slip or slide
3 hostage	_____ natural liquid present in the mouth	3 nurture	_____ give care and food to
4 jumble	_____ worst and most useless parts of anything	4 skid	_____ speak badly about God
5 saliva		5 squint	
6 truce		6 straggle	
1 casualty		1 clinch	
2 flurry	_____ someone killed or injured	2 jot	_____ move very fast
3 froth	_____ being away from other people	3 mutilate	_____ injure or damage
4 revelry	_____ noisy and happy celebration	4 smolder	_____ burn slowly without flame
5 rut		5 topple	
6 seclusion		6 whiz	
1 apparition		1 auxiliary	
2 botany	_____ ghost	2 candid	_____ bad tempered
3 expulsion	_____ study of plants	3 luscious	_____ full of self importance
4 insolence	_____ small pool of water	4 morose	_____ helping, adding support
5 leash		5 pallid	
6 puddle		6 pompous	
1 arsenal		1 dubious	
2 barracks	_____ happiness	2 impudent	_____ rude
3 deacon	_____ difficult situation	3 languid	_____ very ancient
4 felicity	_____ minister in a church	4 motley	_____ of many different kinds
5 predicament		5 opaque	
6 spore		6 primeval	

Version 1 Academic Vocabulary

1 benefit		1 achieve	
2 labor	_____ work	2 conceive	_____ change
3 percent	_____ part of 100	3 grant	_____ connect together
4 principle	_____ general idea used to	4 link	_____ finish successfully
	guide one's actions	5 modify	
5 source		6 offset	
6 survey			
1 element		1 convert	
2 fund	_____ money for a special	2 design	_____ keep out
	purpose	3 exclude	_____ stay alive
3 layer	_____ skilled way of doing	4 facilitate	_____ change from one thing into
	something		another
4 philosophy	_____ study of the meaning of	5 indicate	
	life	6 survive	
5 proportion			
6 technique			
1 consent		1 anticipate	
2 enforcement	_____ total	2 compile	_____ control something skillfully
3 investigation	_____ agreement or permission	3 convince	_____ expect something will happen
4 parameter	_____ trying to find information	4 denote	_____ produce books and newspapers
	about something	5 manipulate	
5 sum		6 publish	
6 trend			
1 decade		1 equivalent	
2 fee	_____ 10 years	2 financial	_____ most important
3 file	_____ subject of a discussion	3 forthcoming	_____ concerning sight
4 incidence	_____ money paid for services	4 primary	_____ concerning money
5 perspective		5 random	
6 topic		6 visual	
1 colleague		1 alternative	
2 erosion	_____ action against the law	2 ambiguous	_____ last or most important
3 format	_____ wearing away gradually	3 empirical	_____ something different that can be
4 inclination	_____ shape or size of something		chosen
5 panel		4 ethnic	_____ concerning people from a
6 violation			certain nation
		5 mutual	
		6 ultimate	

APPENDIX 8. PERMISSION FROM NORBERT SCHMITT TO USE THE VLT

From: Gul Yilmaz, Vesile
Sent: Monday, October 05, 2015 3:02 PM
To:
Subject: Asking for your permission

Dear Professor Schmitt,

First of all, I would like to thank you for providing researchers from all over the world with the outcomes of your research and particularly your test: Vocabulary Levels Test.

I am a PhD student who is currently based in Exeter to do a project on vocabulary under the supervision of Dr Philip Durrant as part of my PhD. In the project I am using the Vocabulary Levels Test (2001) prepared by you, Diane Schmitt, and Caroline Clapham. I know you provide it on your website for researchers. But my school (Dokuz Eylul University in Izmir, Turkey) asks me to get a written permission from you.

I am kindly requesting that you reply to this e-mail of mine, as your positive reply will count as a written permission.

Thank you very much.

Kind regards,

Vesile GUL YILMAZ

University of Exeter
 &
 Dokuz Eylul University

Norbert Schmitt 

5 October 2015

To: Gul Yilmaz, Vesile
 Resent-From:
 RE: Asking for your permission



Hello,

You have permission to use the test for any non-commercial purposes.

Norbert

Norbert Schmitt
 Professor of Applied Linguistics
 School of English Studies
 University of Nottingham
 Nottingham NG7 2RD
 UK

APPENDIX 9. KATILIMCI İZİN FORMU ÖRNEĞİ



GRADUATE SCHOOL OF EDUCATION

Araştırma Projesinin Başlığı: İngilizceyi İngiltere’de ‘İkinci Dil’ ve ‘Türkiye’de ‘Yabancı Dil’ Olarak Öğrenen Türk Öğrencilerin Kullandıkları Sözcük Öğrenme Stratejilerinin Karşılaştırılması

Değerli Öğrenci,

Bu anket, sizlerin kullandığı kelime öğrenme stratejilerini ve bu stratejileri kullanma sıklığınızı tespit etmeyi amaçlamaktadır. Çalışmaya katılmayı kabul ettiğinizde, size ait bazı bilgiler vermenin yanı sıra kelime öğrenme stratejileri anketini yanıtlamayı kabul etmiş olacaksınız. Anket maddelerini lütfen dikkatlice okuyunuz ve verilenler arasında size uyan seçeneği işaretleyiniz.

Anket maddeleri için, strateji kullanım sıklığına göre en az kullanılan en çok kullanılan; stratejileri yararlı bulma durumunuza göre ise en az yararlı olandan en çok yararlı olana doğru beşer seçenek oluşturulmuştur.

Ankette neyi kastettiğini tam olarak anlayamadığınız maddelerin başındaki kutucuğu işaretleyiniz.

Elde edilecek veriler yalnızca bu çalışma için kullanılacaktır. Vereceğiniz yanıtların içtenliği araştırmayı olumlu yönde etkileyecektir.

Katkılarınız için şimdiden teşekkürler!

Vesile GÜL YILMAZ

ONAY FORMU

Çalışmanın kapsam ve amacı konusunda tam olarak bilgilendirildim.

Bu araştırma projesine katılmak zorunda olmadığımı; eğer katılmayı tercih edersem, çalışmanın herhangi bir aşamasında çalışmadan çekilme hakkım olduğu,

benimle ilgili herhangi bir bilginin yayınlanmamasını isteme hakkım olduğu, vereceğim tüm bilgi ve verilerin yalnızca bu projede ve bu proje sonucunda ortaya çıkacak yayınlarda kullanılacağı,

vereceğim tüm bilgilerin gizli tutulacağı ve

araştırmacının, benim kimliğimi gizli tutmak için elinden gelen çabayı göstereceği

konusunda bilgilendirildim.

.....

.....

(Katılımcının İmzası)

(Tarih)

.....

(Katılımcının Adı)

Vesile GÜL YILMAZ

(Araştırmacı)

Philip DURRANT p.l.durrant@exeter.ac.uk & **Berna ÇÖKER** berna.coker@deu.edu.tr

(Danışmanlar)

APPENDIX 10. CONSENT FORM SAMPLE



GRADUATE SCHOOL OF EDUCATION

Title of Research Project: **A Comparative Study on the Use of Vocabulary Strategies by Turkish ESL Learners in the UK and EFL Learners in Turkey**

Dear Student,

This research aims to find out about the strategies you use while you are learning new words in English and your success in a vocabulary test. If you decide to take part in this research, you will need to provide some data about your vocabulary level and your vocabulary learning strategy use through completing three instruments; Personal Data Form, Vocabulary Learning Strategies Questionnaire and Vocabulary Levels Test, the data from which will only be used for the purpose of this specific research. These will take approximately 45 minutes totally.

Thank you!

Vesile GUL YILMAZ

CONSENT FORM

I have been fully informed about the aims and purposes of the project.

I understand that:

there is no compulsion for me to participate in this research project and, if I do choose to participate, I may at any stage withdraw my participation and may also request that my data be destroyed

I have the right to refuse permission for the publication of any information about me

any information which I give will be used solely for the purposes of this research project, which may include publications or academic conference or seminar presentations

if applicable, the information, which I give, may be shared between any of the other researcher(s) participating in this project in an anonymised form

all information I give will be treated as confidential

the researcher(s) will make every effort to preserve my anonymity

.....

.....

(Signature of participant)

(Date)

.....

(Printed name of participant)

One copy of this form will be kept by the participant; a second copy will be kept by the researcher(s)

Contact phone number of researcher(s):

If you have any concerns about the project that you would like to discuss, please contact:

Vesile GÜL YILMAZ via

(Researcher) OR

Philip Durrant via p.l.durrant@exeter.ac.uk & Berna ÇÖKER via berna.coker@deu.edu.tr (Project supervisors)

* when research takes place in a school, the right to withdraw from the research does NOT usually mean that pupils or students may withdraw from lessons in which the research takes place

Data Protection Act: The University of Exeter is a data collector and is registered with the Office of the Data Protection Commissioner as required to do under the Data Protection Act 1998. The information you provide will be used for research purposes and will be processed in accordance with the University's registration and current data protection legislation. Data will be confidential to the researcher(s) and will not be disclosed to any unauthorised third parties without further agreement by the participant. Reports based on the data will be in anonymised form.

Revised March 2013

APPENDIX 11. ETHICAL PERMISSION (UNIVERSITY OF EXETER)

MSc, PhD, EdD & DEdPsych theses.



UNIVERSITY OF
EXETER

Graduate School of Education

Certificate of ethical research approval

MSc, PhD, EdD & DEdPsych theses

To activate this certificate you need to first sign it yourself, and then have it signed by your supervisor and finally by the Chair of the School's Ethics Committee.

For further information on ethical educational research access the guidelines on the BERA web site: <http://www.bera.ac.uk/publications> and view the School's Policy online.

READ THIS FORM CAREFULLY AND THEN COMPLETE IT ON YOUR COMPUTER (the form will expand to contain the text you enter). **DO NOT COMPLETE BY HAND**

Your name: Vesile GUL YILMAZ

Your student no: 640043173

Return address for this certificate: 6 Colleton Hill EX2 4AS Exeter, Devon , UK

Degree/Programme of Study: Doctoral Research / College of Social Sciences and International Studies

Project Supervisor(s): Dr. Philip Durrant

Your email address: _____

Tel: _____

I hereby certify that I will abide by the details given overleaf and that I undertake in my thesis to respect the dignity and privacy of those participating in this research.

I confirm that if my research should change radically, I will complete a further form.

Signed: Vesile GUL YILMAZ **date:** 18.12.2014

Chair of the School's Ethics Committee
updated: March 2013

Certificate of ethical research approval

TITLE OF YOUR PROJECT: A Comparative Study on the Use of Vocabulary Strategies by Turkish ESL Learners in the UK and EFL Learners in Turkey

1. Brief description of your research project:

The purpose of this research is to examine the role of context (EFL or ESL) on the use of Vocabulary Learning Strategies (VLS) of Turkish students. In other words, this research aims to answer the question whether there is a difference between the Vocabulary Learning Strategies deployed by Turkish ESL learners in the UK and EFL learners in Turkey. For the data collection process in Turkey, approval of Ethics Council of Dokuz Eylul University Institute of Educational Sciences will be received. The researcher is going to start the ethics procedures for the Turkey end of the study once data collection instruments are ready since the council asks them to be provided along with the application forms. It is planned by the researcher to collect the data from both ends of the study within this academic year, Turkey end being in early May. In this way, the researcher plans to complete a major part of the study within the given time. Students' frequency of use of VLS and their views on the usefulness of VLS are going to be taken into account in the study.

A descriptive research design in which both qualitative and quantitative methods are utilized will be employed in the study. For the ESL context, 40 Turkish students pursuing their graduate education in a variety of departments at the University of Exeter (along with some other universities in the UK) and for the EFL context, the same number of graduate students attending all-English departments of Dokuz Eylul University are going to constitute the sample group of the research will be selected from the as well as the study. Quantitative data will be collected via "Vocabulary Learning Strategies Questionnaire" and a "Vocabulary Levels Test" from all the sample group (40+40) while qualitative data will be gathered from 16 students from each context through self-reports of students such as interviews, think aloud protocols and learners' written records. Mean, standard deviation, *t* test, analysis of variance, Scheffé tests and qualitative data analysis methods will be utilized in data analysis.

Research results will show whether there is a significant difference between the Vocabulary Learning Strategies deployed by Turkish students in EFL learners in the UK and ESL learners at Dokuz Eylul University. Besides, learners' frequency of use of VLS and their views on the usefulness of VLS are going to be compared.

2. Give details of the participants in this research (giving ages of any children and/or young people involved):

The sample group of the research will be composed of two groups of learners representing "second language" (ESL) and "foreign language" (EFL) contexts. The first group will consist of Turkish postgraduate students attending a variety of departments of the University of Exeter (along with some other universities in the UK). And the second group will consist of postgraduate students attending a variety of all-English departments of Dokuz Eylul University. Sample group will consist of a

minimum of 80 postgraduate students, with 40 from each context. The participants, who will be pursuing their master's or doctoral programmes, will be no younger than 22 years of age.

Give details (with special reference to any children or those with special needs) regarding the ethical issues of:

3. informed consent: Where children in schools are involved this includes both headteachers and parents). Copy(ies) of your consent form(s) you will be using must accompany this document. a blank consent form can be downloaded from the GSE student access on-line documents: Each consent form **MUST** be personalised with your contact details.

Once the data collection instruments are ready, the researcher is going to inform potential participants about the research via some social networking group (such as Facebook groups "Turkish Society Exeter" and "EXE TR"). The potential participants will be told that the aim of the research is to examine the role of context (EFL or ESL) on the use of Vocabulary Learning Strategies (VLS) of Turkish students and that some data would be collected from them via "Vocabulary Learning Strategies Questionnaire", "Vocabulary Levels Test", an interview and some think aloud protocols should they volunteer to take part. Besides that, an information sheet including the name and purpose of the study as well as some information on the data collection instruments and on how long it would take them to complete the questionnaires and do the interview will be given to students. A copy of the personalized consent form including the researcher's contact details and the information that they have the right to withdraw from the research at any time of the research will also be given to the participants while another copy will be kept by the researcher.

4. anonymity and confidentiality

Anonymity of the identities of the participants of the study and confidentiality of the data that will be collected from them will be guaranteed via a set of precautions, most important ones being;

1. use of only the initials of the participants' names when it is necessary to refer to them throughout the study
2. storage of papers in a locked file
3. use of a password-protected computer
4. safe storage of recordings and their transcripts.

5. Give details of the methods to be used for data collection and analysis and how you would ensure they do not cause any harm, detriment or unreasonable stress:

Descriptive research design will be utilized in this research where qualitative and quantitative methods will be used together. Data of the research will be collected via (a) Vocabulary Learning Strategies Questionnaire (VLSQ), (b) Vocabulary Levels Test (VLT) and (c) interview with students (including think-aloud protocols and learners' written records).

Mean, standard deviation, *t* test, analysis of variance, Scheffé tests and qualitative data analysis methods will be utilized in data analysis.

Throughout the whole process of data collection and analysis, the researcher will abide by the promises enclosed in the consent form. The researcher will guarantee not causing any harm, detriment or unreasonable stress to the participants by;

- assuring the anonymity of the participants identity and confidentiality of the data to be collected from them
- providing the participants with a consent form, including the contact details of the researcher and the information that they can withdraw from the project whenever they wanted to
- predetermining the proper length of time for each data collection instrument to be collected
- arranging breaks between data collection instruments if necessary
- giving the participants enough time to fill in the questionnaires

6. Give details of any other ethical issues which may arise from this project - e.g. secure storage of videos/recorded interviews/photos/completed questionnaires, or

Recorded interviews and completed questionnaires will only be used by the researcher just for the purpose of the research and related publications. The researcher is responsible to preserve the anonymity of the participants. Anonymity of the identities of the participants of the study and confidentiality of the data that will be collected from them will be kept safe via a set of precautions, most important ones being; use of only the initials of the participants' names when it is necessary to refer to them throughout the study, storage of papers in a locked file, use of a password-protected computer and safe storage of recordings and their transcripts.

7. special arrangements made for participants with special needs etc.

None of the participants of the research is in need of special arrangements.

8. Give details of any exceptional factors, which may raise ethical issues (e.g. potential political or ideological conflicts which may pose danger or harm to participants):

No reference to political or ideological matters which may arise ethical issues is planned or included in the project or its data collection instruments.

This form should now be printed out, signed by you on the first page and sent to your supervisor to sign. Your supervisor will forward this document to the School's Research Support Office for the Chair of the School's Ethics Committee to countersign. A unique approval reference will be added and this certificate will be returned to you to be included at the back of your dissertation/thesis.

N.B. You should not start the fieldwork part of the project until you have the signature of your supervisor

This project has been approved for the period: 7/1/15 until: 31/9/15

By (above mentioned supervisor's signature): P. L. D.  date: 7/11/15

Chair of the School's Ethics Committee
updated: March 2013

N.B. To Supervisor: Please ensure that ethical issues are addressed annually in your report and if any changes in the research occur a further form is completed.

GSE unique approval reference: D/14/15/28

Signed: Jane Keale date: 9/3/15
Chair of the School's Ethics Committee



GRADUATE SCHOOL OF EDUCATION

Title of Research Project: **A Comparative Study on the Use of Vocabulary Strategies by Turkish ESL Learners in the UK and EFL Learners in Turkey**

CONSENT FORM

I have been fully informed about the aims and purposes of the project.

I understand that:

there is no compulsion for me to participate in this research project and, if I do choose to participate, I may at any stage withdraw my participation and may also request that my data be destroyed

I have the right to refuse permission for the publication of any information about me

any information which I give will be used solely for the purposes of this research project, which may include publications or academic conference or seminar presentations

if applicable, the information, which I give, may be shared between any of the other researcher(s) participating in this project in an anonymised form

all information I give will be treated as confidential

the researcher(s) will make every effort to preserve my anonymity

.....
(Signature of participant)

.....
(Date)

.....
(Printed name of participant)

One copy of this form will be kept by the participant; a second copy will be kept by the researcher(s)

Contact phone number of researcher(s):

If you have any concerns about the project that you would like to discuss, please contact:

Vesile GÜL YILMAZ

(Researcher)

OR

Philip Durrant via p.l.durrant@exeter.ac.uk (Project supervisor)

* when research takes place in a school, the right to withdraw from the research does NOT usually mean that pupils or students may withdraw from lessons in which the research takes place

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Revised March 2013

INFORMATION FOR PARTICIPANTS OF THE STUDY

Title of Research Project: A Comparative Study on the Use of Vocabulary Strategies by Turkish ESL Learners in the UK and EFL Learners in Turkey

Dear Participant,

The purpose of this research is to examine the role of context (EFL or ESL) on the use of Vocabulary Learning Strategies (VLS) of Turkish students. In other words, this research aims to answer the question whether there is a difference between the Vocabulary Learning Strategies deployed by Turkish ESL learners in the UK and EFL learners in Turkey.

Data collection instruments of the study you are volunteering to contribute to are;

1. "Vocabulary Learning Strategies Questionnaire" (Suggested duration: minutes)
2. "Vocabulary Levels Test" (Suggested duration: minutes)
3. an interview (Suggested duration: minutes) and
4. think aloud protocols (Suggested duration: minutes).

Thanks for your contribution to the project.

Vesile GUL YILMAZ (researcher)

E-mail:

GSM:



GRADUATE SCHOOL OF EDUCATION

Title of Research Project: A Comparative Study on the Use of Vocabulary Strategies by Turkish ESL Learners in the UK and EFL Learners in Turkey

Dear Student,

This research aims to find out about the strategies you use while you are learning new words in English and your success in a vocabulary test. If you decide to take part in this research, you will need to provide some data about your vocabulary level and your vocabulary learning strategy use through completing three instruments; Personal Data Form, Vocabulary Learning Strategies Questionnaire and Vocabulary Levels Test, the data from which will only be used for the purpose of this specific research. These will take approximately 45 minutes totally.

Thank you!

Vesile GÜL YILMAZ

CONSENT FORM

I have been fully informed about the aims and purposes of the project.

I understand that:

there is no compulsion for me to participate in this research project and, if I do choose to participate, I may at any stage withdraw my participation and may also request that my data be destroyed

I have the right to refuse permission for the publication of any information about me

any information which I give will be used solely for the purposes of this research project, which may include publications or academic conference or seminar presentations

if applicable, the information, which I give, may be shared between any of the other researcher(s) participating in this project in an anonymised form

all information I give will be treated as confidential

the researcher(s) will make every effort to preserve my anonymity

.....
(Signature of participant)

.....
(Date)

.....
(Printed name of participant)

One copy of this form will be kept by the participant; a second copy will be kept by the researcher(s)

Contact phone number of researcher(s):

If you have any concerns about the project that you would like to discuss, please contact:

Vesile GÜL YILMAZ

(Researcher)



GRADUATE SCHOOL OF EDUCATION

OR

Philip Durrant via p.l.durrant@exeter.ac.uk (Project supervisor)

* when research takes place in a school, the right to withdraw from the research does NOT usually mean that pupils or students may withdraw from lessons in which the research takes place

Data Protection Act: The University of Exeter is a data collector and is registered with the Office of the Data Protection Commissioner as required to do under the Data Protection Act 1998. The information you provide will be used for research purposes and will be processed in accordance with the University's registration and current data protection legislation. Data will be confidential to the researcher(s) and will not be disclosed to any unauthorised third parties without further agreement by the participant. Reports based on the data will be in anonymised form.

Revised March 2013

APPENDIX 12. ETHICAL PERMISSION (DOKUZ EYLUL UNIVERSITY)

