088. Does context matter? Vocabulary learning strategy use in second and foreign language contexts

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Abstract

Vocabulary is of great importance in language learning. Using Vocabulary Learning Strategies (VLS) surely promotes vocabulary learning. The aim of the present study is to examine the role of language learning context (EFL and ESL) in Turkish graduate learners' VLS use. A descriptive research design was employed in the study. The participants were recruited from two contexts, namely; ESL and EFL. The ESL participants were 49 Turkish graduate (masters or doctorate) learners in various 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'. Descriptive statistics, *t* test, analysis of variance (ANOVA) 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' 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 group while Consolidation-Social strategies were the least frequently used category in both groups. VLS instruction should be considered in both contexts. Also, further research into the reasons why VLS use differs in the ESL and EFL contexts is suggested.

Keywords: Vocabulary learning strategies, language learning context, second language, foreign language

Bağlam önemli midir? Sözcük öğrenme stratejilerinin ikinci dil ve yabancı dil bağlamlarında kullanımı

Öz

Sözcük bilgisi dil öğreniminin oldukça önemli bir parçasıdır. Sözcük Öğrenme Stratejilerinin (SÖS) kullanılması sözcük öğrenimini kuşkusuz olumlu etkiler. Bu çalışmanın amacı Türk lisansüstü öğrencilerin SÖS kullanımlarında dil öğrenme (ikinci dil ve yabancı dil) bağlamının rolünü incelemektir. Çalışmada betimsel araştırma yöntemi kullanılmıştır. Katılımcılar iki ayrı dil öğrenme (ikinci dil ve yabancı dil) bağlamında yer almaktadır. İkinci dil bağlamındaki katılımcıları, lisansüstü (yüksek lisans ya da doktora) eğitimlerine İngiltere'deki 21 farklı üniversitenin çeşitli bölümlerinde devam etmekte olan 49 Türk öğrenci; yabancı dil bağlamındaki katılımcıları da Türkiye'deki 27 farklı üniversitenin tamamen İngilizce eğimi veren çeşitli bölümlerinde eğitimlerine devam eden 79

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lisansüstü Türk öğrenci oluşturmaktadır. Çalışmanın verileri 'Sözcük Öğrenme Stratejileri Anketi' ile toplanmıştır. Veri analizinde betimsel istatistik, *t* testi, varyans analizi (ANOVA), çoklu varyans analizi (MANOVA) yöntemleri kullanılmıştır. Araştırmanın sonunda ikinci dil (İngiltere) ve yabancı dil (Türkiye) bağlamındaki öğrencilerin SÖS kullanımları arasında yabancı dil bağlamındaki öğrenciler lehine anlamlı fark bulunmuştur. Ancak öğrencilerin SÖS kullanımları üstünde cinsiyetlerinin ve bölümlerinin anlamlı bir etkisi olmadığı görülmüştür. Ayrıca, her iki bağlamda en sık kullanılan SÖS kategorisi Keşif-Belirleme stratejileri iken en az kullanılan kategori ise Pekiştirme-Sosyal stratejiler olarak bulunmuştur. Bulgular doğrultusunda, her iki bağlam için de strateji eğitimi verilmesi düşünülmelidir. Ayrıca, ikinci dil ve yabancı dil bağlamları arasındaki SÖS kullanım farklarının nedenine ilişkin daha çok çalışma yapılması önerilmektedir.

Anahtar kelimeler: Sözlük öğrenme stratejileri, dil öğrenme bağlamı, ikinci dil, yabancı dil

1. Introduction

Vocabulary has a vital role in language learning in general. It is accepted to be one of the factors that connect the four language skills - namely; speaking, listening, reading and writing – together. It is so important that without it "one cannot speak, understand, read or write a foreign language" (Rubin & Thompson, 1994, p. 79). 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 Vocabulary Learning Strategies (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). 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 culture (Catalan, 2003) and context (Gu, 2003) in which it is used.

It is possible to mention two contexts for the English language. The first one of these is "second language context", where English is the mother tongue, and the second one is "foreign language context", 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.

Strategies are valued more and more in language learning with each passing day. 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". Nevertheless, according to Gu (2003, p. 17), "Oxford (1996) underscores the importance strategy researchers are beginning to place on learning context". Gu (2003, 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 vocabulary learning strategies". This particular study aims to help fill this gap in the literature by investigating the VLSs used by language learners in each context.

On the relationship between gender and strategy use, 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, with some (Catalan, 2003; Kaylani, 1996; Mochizuki, 1999) finding gender as a significantly important factor in strategy use while some others (Abu Shmais, 2003; Ahour & Abdi, 2015; Okyar, 2021; 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 (Nia, Roohani, & Hashemian, 2022; Tercanlioğlu, 2004; Wharton, 2000) concluded vice versa (male predominance over females).

Still another variable that might potentially affect strategy use is learners' academic majors, which can also be referred to as academic orientation, field of study, discipline, etc. Although all language learners use VLSs of all kinds of strategy groups, they tend to use them with varying frequencies (Dreyer & Oxford, 1996; Gu, 2002; Kayad, 1999). Whether learners' academic orientation affects their strategy use remains to be a controversial issue. Some studies (Bernardo & Gonzales, 2009; Boonkongsaen & Intaraprasert, 2014; Chiang, 2004; Liao, 2004; Mingsakoon, 2002; Mochizuki, 1999, Muniandy & Shuib, 2016; Peacock & Ho, 2003; Zhang, 2009) find it as a significant factor, but some others (Gu, 2002; Meshkat & Khanjani, 2014) conclude that the relationship between academic major and strategy use is not significant. Most of the studies finding a significant relationship (Peacock & Ho, 2003; Rao & Liu, 2011; Rong, 1999) conclude that Social Science and Arts major learners use more varied strategies more frequently than their Science major counterparts.

Controversial findings in the literature regarding the relationship between strategy use and gender and academic orientation prompts the need for more research into the field. In this respect, this study aims to gain an understanding of the relationship between VLS use and factors such as language learning context, gender, and academic major. In other words, the goal of this research is to examine the role of language learning context (EFL or ESL) in the use of VLS by graduate Turkish students. The research also aims to discover the differences in VLS use between learners with different genders and academic majors. The following research questions were posed to achieve this purpose:

RQ 1: Is there a significant difference in VLS use between ESL and EFL contexts?

RQ 2: Is there a significant difference in VLS use between female and male learners?

RQ 3: Is there a significant difference in VLS use between Arts & Humanities major and Science major learners?

The researchers aim to get an insight about the factors affecting learners' VLS use, discover the popular VLSs among Turkish graduate learners, and propose generalizations regarding VLS use patterns in each context (by different genders and academic majors). This could have implications for language teaching / learning in each context.

2. Method

2.1. Research model

In this study, a descriptive research design was adopted as the aim of the study was to describe a given situation as precisely and carefully as possible (Büyüköztürk et al., 2010). The study was conducted to identify any possible differences in VLS use by Turkish graduate learners between the ESL and EFL contexts.

2.2. Research sample

The participants of the study were recruited from two contexts; namely, ESL and EFL. Participants from the ESL context consisted of 49 Turkish students pursuing their graduate education in a number of departments at 21 universities in the UK. The EFL context was represented by 79 graduate students attending all-English departments at 27 Turkish universities. Thus, a total of 128 graduate students constituted the sample group of the research. The participants of the study were determined via the random cluster sampling method among the probability sampling techniques (Simkus, 2022). Table 1 presents demographic distribution of the participants.

Table 1. Demographic distribution of the participants in the ESL and EFL contexts

		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 1 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 55% (70) of all the participants were females while the remaining 45% (58) were males. As for the participants' educational levels, only 31% (15) of those in the ESL context were master level students while the rest (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 79 (62%) to 49 (38%). Lastly, 61% (30) of the participants from the ESL context were Arts and Humanities students while the remaining 39% (19) were Science major. The ratio of Arts and 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 students were Arts and Humanities major while the rest (35%, 45) were Science majors.

2.3. Data collection tools and procedure

The data of the study were collected via 'Vocabulary Learning Strategies Questionnaire' (VLSQ). The VLSQ has been developed by the researchers in line with Schmitt's (1997) taxonomy of VLSs as part of a doctoral dissertation. The 54-item questionnaire is in 5-point Likert format. It consists of two main subcategories, namely; 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 are defined 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.

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). 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".

The data of the study were collected from each of the ESL (the UK) and EFL (Turkey) contexts in 2014-2015 academic year. The Cronbach Alpha coefficient for reliability of the questionnaire was .84 and .94 for its main parts, namely; Discovery and Consolidation strategies, with an overall Cronbach Alpha coefficient of .95. Also, some personal data such as participants' gender, age, and academic major were collected via a 'Personal Information Form'.

2.4. Data analysis

Descriptive statistics (such as mean and standard deviation), *t* test, analysis of variance (ANOVA), and multivariate analysis of variance (MANOVA) analysis methods were utilized in data analysis using an SPSS package program.

2.5. Ethical

Ethical permission was obtained from University of Exeter Graduate School of Education Ethical Committee (with the reference number D/14/15/28) on 09/03/2015 and from Dokuz Eylul University Institute of Educational Sciences Ethical Committee (with the reference number 06) on 26/05/2016 (for the doctoral study the researcher was pursuing) before collecting the data.

3. Findings

In this section, the results obtained from the analysis of the collected data are presented in relation to the research questions.

Results concerning RQ 1: Is there a significant difference in VLS use between ESL and EFL contexts?

The first research question aimed to identify the differences between the ESL and EFL contexts regarding Turkish graduate learners' VLS use. Data on participants' VLS use were collected from each of the two contexts via the VLSQ. The table below shows the mean scores for the average frequency of use of the six subcategories of VLSs, 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 2.

Table 2. Overall and group-bound average frequencies of VLS use, and a comparison of ESL and EFL contexts

	Overall (n=128)		UK (n=49)		Turkey (n=79)		UK vs. Turkey		
Strategy type	m	SD	m	SD	m	SD	t	p	r
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

Table 2 reveals that the most frequently use VLS category was Discovery-Determination strategies while the least frequently used category of VLSs was Consolidation-Social strategies when both the overall and group-bound mean scores were taken into account. Also, the participants in the EFL context used all 6 sub-categories of VLSs more frequently than the participants in the ESL context. The difference in VLS use between the two contexts was found to be statistically significant ($p<.05$) in all but one of the subcategories, namely Consolidation-Social strategies. The difference in VLS use between the two contexts was statistically significant when the overall VLS use means were taken into account.

Results concerning RQ 2: Is there a significant difference in VLS use between female and male learners?

The second research question aimed to detect gender differences in VLS use by Turkish graduate learners. Table 3 shows the average frequencies of the use of VLSs according to gender, irrespective of which of the two language learning contexts students come from.

Table 3. VLS use in terms of gender (with no regard to context)

	Overall (n=128)						
	Female (n=70)		Male (n=58)		Female vs. Male		
Strategy type	Mean	SD	Mean	SD	*t*	p	*r*
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

As shown on Table 3, when the mean scores for each of the six subcategories of VLS use were concerned, female participants had higher scores in almost all categories (5/6). However, the difference between the two gender groups was not found to be significant in any of the subcategories. Table 4 provides the average frequencies of reported use of the six sub-categories and general average of VLSs in terms of gender in each context.

Table 4. VLS use in terms of gender in the ESL and EFL contexts

	UK (n=49)				Turkey (n=79)			
	Female (n=22)		Male (n=27)		Female (n=48)		Male (n=31)	
Strategy type	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

When Table 4 is examined, it is seen that although there are differences between genders in both contexts, and females seem to have higher mean scores in most of the VLS subcategories in both contexts, these differences in strategy use between male and female participants seem to be different in the two contexts. A Multivariate Analysis of Variances (MANOVA) test was carried out to get a clearer understanding of this, and see whether a significant relationship existed between VLS use on one hand, and gender and context on the other. Wilks' Lambda values were calculated. The findings have been shown on Table 5.

Table 5. The interaction between context and gender regarding VLS use

Effect	Value	F	p	$\eta 2$
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 discover the effect of context and gender on VLS use on Table 5 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 VLS use, which is already shown on Table 3. On the other hand, there was no statistically significant difference between the male and female students' VLS use. However, when context and gender were assessed together, the researchers found a statistically significant difference between participants. This means, although both language learning contexts have an effect on female and male participants, this effect is different in the UK from the way it is in Turkey; and the other way round. In addition, partial eta squared ($\eta 2$) values (effect sizes) were calculated to be .206 for context, .039 for gender, and .100 (out of 1) for context and gender together. Figure 1 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.

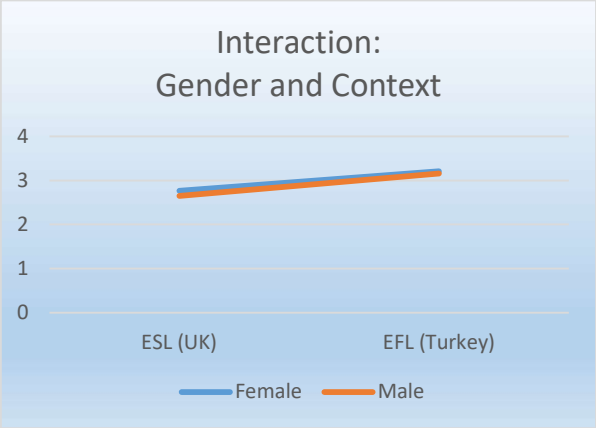

Figure 1. The interaction between gender and context in terms of their relationship with VLS use

Figure 1 gives a clearer presentation of what the MANOVA test on Table 5 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 1 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 1 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.

Results concerning RQ 3: Is there a significant difference in VLS use between Science major and Arts & Humanities major learners?

The third research question of the study aimed to identify the differences between Arts & Humanities major and Science major participants' VLS use. To this end, average VLS frequencies according to academic major (without paying any attention to which of the two language learning contexts students come from) have been provided on Table 6.

Table 6. VLS use by academic majors (with no regard to context)

Overall (n=128)							
Strategy type	Arts & Humanities (n=83)		Science (n=45)		Arts & Humanities vs. Science		
	Mean	SD	Mean	SD	*t*	p	*r*
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)

As shown on Table 6, although there is a difference among the mean scores, the rankings for the frequency of VLS use by Arts & Humanities and Science major participants were similar. A *t* test was carried out to find out whether the difference between Arts & Humanities and Science major learners' VLS use was statistically significant or not. The results revealed that the difference 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, which means the difference in strategy use between the majors is

most explicit in this category though not significant. The difference between Arts & Humanities and Science major participants regarding their general VLS use was not statistically significant either (p>.05). Table 7 aims to give the average frequencies of VLS use according to academic major in the two language learning contexts (ESL and EFL).

Table 7. VLS use by academic majors in the ESL and EFL contexts

Strategy type	UK (n=49)				Turkey (n=79)			
	Arts & Hum. (n=30)		Science (n=19)		Arts & Hum. (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) (Hum stands for Humanities)

An examination of Table 7 reveals that there are differences in VLS use of Arts and Humanities majors and Science majors in both contexts. However, while Science majors have higher mean scores in almost all (5 out of the 6) of the VLS subcategories in the ESL context, Arts and Humanities majors have higher mean scores in all of the VLS subcategories in the EFL context. Yet, as Table 6 revealed previously, the difference in VLS use between the majors is not significant in any of the VLS subcategories.) In order to get a clearer understanding of this, and a Multivariate Analysis of Variances (MANOVA) test was conducted to find out whether there was a significant relationship between the frequencies of VLS use on one hand and academic major and context on the other. Wilks' Lambda values were taken into account. Table 8 presents the results.

Table 8. The interaction between context and academic major regarding VLS use

Effect	Value	F	p	$\eta 2$
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)

Table 8 shows the MANOVA test conducted to discover the effects of context and academic major on the VLS use. The results revealed a statistically 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 3. 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 6. 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 2 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.

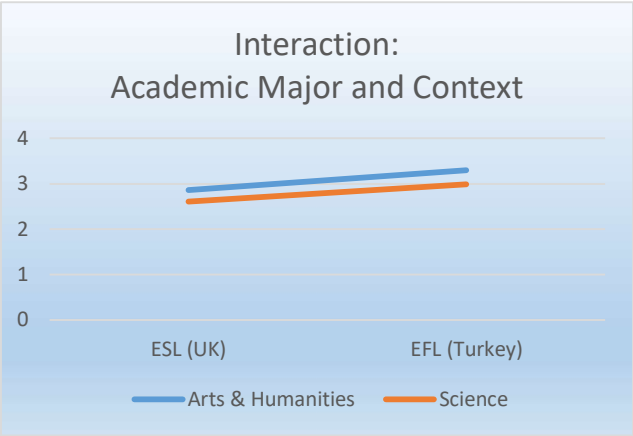

Figure 2. The interaction between academic major and context in terms of their relationship with VLS use

Figure 2 gives a clearer presentation of what the MANOVA test on Table 8 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 2 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 use of VLSs. This means, the effect of context on Arts & Humanities majors and Science majors is similar.

4. Discussion and conclusion

This piece of research aimed to discover the role of language learning context (ESL and EFL) on Turkish graduate learners' Vocabulary Learning Strategy (VLS) use. The study also aimed to discover the effect of learners' genders and academic majors on their VLS use. The participants of the study were recruited from two language learning contexts, namely ESL and EFL. For the ESL context, 49 Turkish students attending masters and doctorate programmes at various departments at 21 different universities in the UK participated the study. The EFL participants were also masters and doctorate students at a variety of (all-English) departments at 27 different universities in Turkey. The study data were collected via Vocabulary Learning Strategies Questionnaire (VLSQ) developed by the researchers as part of a doctoral dissertation.

The study results revealed that language learning context affected VLS use significantly. In other words, the VLSs Turkish graduate learners employ in the two contexts, namely; ESL and EFL, differed significantly from each other, in favour of the EFL context. To give a more detailed account, learners in the EFL context used five out of the six subcategories of VLSs (as well as the overall VLSs) significantly more frequently than their counterparts in the ESL context. 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. These findings are in line with the research findings of Kojic-Sabo and Lightbown's (1999).

The research also revealed that learners' genders did not have a significant effect on their VLS use. This is in line with the findings of some studies in the literature (Abu Shmais, 2003; Ahour & Abdi, 2015; Okyar, 2021; Sung, 2011; Tsai & Chang, 2009) which found no significant relationship between gender and strategy use.

Regarding learners' academic majors, the last potential factor to affect VLS investigated within the scope of this study, the study revealed that there are differences in VLS use of Arts and Humanities majors and Science majors in both contexts. However, while Science majors have higher mean scores in almost all (5 out of the 6) of the VLS subcategories in the ESL context, Arts and Humanities majors have higher mean scores in all of the VLS subcategories in the EFL context. The reason to this might be that Science major learners in the UK universities tend to study in group, carrying out tasks / experiments together, and thus having to communicate with each other in the common language (English); which most probably urges them to use VLSs more frequently then their Arts & Humanities major counterparts, who mostly study on their own. Yet, despite the difference in the mean score of VLS use by the members of the two learners' academic major (fields of study) groups, the difference between their VLS use was not found to be statistically significant. Differently from a number of studies in the literature that found academic major to be a determinant factor in strategy use (Bernardo & Gonzales, 2009; Boonkongsaen & Intaraprasert, 2014; Chiang, 2004; Liao, 2004; Mingsakoon, 2002; Mochizuki, 1999; Muniandy & Shuib, 2016; Zhang, 2009), no significant relation between VLSs and academic major has been detected in this piece of research, which is line with Meshkat and Khanjani's (2014) findings.

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, 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), of Baskın, İşcan, Karagöz, and Birol (2017), and Linh (2022), all of whom found that Determination strategies were the most frequently used category.

Similarly, Social strategies were reported to be the least frequently used VLS category by some studies (Amiran & Heshmatifar, 2013; Hismanoglu & Turan, 2019; Kafipour, Yazdi, Soori, & Shokrpour, 2011; Komol & Sripetpun, 2014; Muminova, 2022; Şener, 2003) in the literature. 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 student' 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 in this study seem to use Social strategies to determine word meaning rather than consolidate it, ranking them the fourth most frequently used category out of the six categories.

The study examined the Vocabulary Learning Strategies (VLSs) used by graduate level Turkish ESL learners pursuing their masters or doctorates in the UK (ESL) and in Turkey (EFL) in relation to their gender and academic major. The finding revealed significant difference between the ESL and EFL contexts in VLS use, but no significant difference in VLs use with regards to gender and academic major. Another important finding of the study was that Discovery-Determination Strategies were the most frequently used VLS category while Consolidation-Social strategies were the least frequently used strategy category.

5. Recomendations

As a result of this study, it can be suggested that the difference between the ESL and EFL contexts in VLS use be taken into account in English language education and vocabulary teaching in both contexts. VLS instruction should be included in English language teaching curriculums for earlier steps of

education. As for future researchers, it is suggested that qualitative as well as quantitative studies be carried out in the field in order to get a deeper insight into the reasons why learners prefer one strategy or strategy category over the others. It is also suggested that research on higher achiever learners be carried out to pinpoint the effective strategies. It is hope that the study has a contribution to the field.

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