The Relationship between Vocabulary Learning Strategies and Vocabulary of Learners of Turkish as Foreign or Second Language

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Abstract

The aim of this study is to find out which vocabulary learning strategies learners of Turkish in Turkey and abroad use, to compare and contrast vocabulary learning strategies used by these two group of learners, to determine whether learners' use of vocabulary learning strategies are influenced by a set of variables including age, gender, language level, and another foreign language learnt, and to identify the relationship, if any, between vocabulary and the use of vocabulary learning strategies. This study used a relational screening model that allows drawing comparisons and correlations. The data were collected in 2017-2018 using the Foreign Language Vocabulary Learning Strategies Scale developed by Kocaman and Kızılkaya-Cumaoğlu (2014) and vocabulary tests designed by the researcher considering different language levels. The sample consisted of 182 learners of Turkish in Turkey and abroad. In the analysis of the data, parametric and nonparametric tests were used together on the basis of the normality distribution of the data. The data were analyzed using the t-test, one-way analysis of variance (ANOVA), the Tukey's test, the Mann-Whitney U test, and correlation analysis. The analysis results showed that the mean frequency of strategy use was *medium*, the type and frequency of strategies used by the learners varied according to language levels, gender and the place of learning Turkish (in Turkey or abroad) had a limited and statistically insignificant effect on the use of strategies, previous learning of another foreign or second language has an effect on the use of vocabulary learning strategy, the place of learning led to a significant variation in vocabulary achievement, and there was a strong, positive and significant correlation between the use of vocabulary learning strategies and vocabulary.

Keywords: Vocabulary learning strategies, vocabulary, teaching Turkish as a foreign or second language.

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Introduction

Foreign language education today aims to help learners to equally develop the four basic language skills of the target language and effectively use these skills. For this to be achieved, there are two factors that learners need in order to master all the skills and become competent users of the target language. These are the grammar rules and vocabulary of the target language. The effective use of language skills, which is the main objective of language learning, cannot be achieved unless learners of a foreign or second language learn the set of vocabulary and grammar rules required for each level and acquire a certain level of proficiency in these two aspects of language. Comparing these two factors that play a decisive role in improving language skills, vocabulary far outweighs grammar rules and forms the base of all learning. In fact, comprehensible inputs need to be received first in order to activate the mind and start the learning activity. Words are the conveyer of inputs that the brain can understand. If one wants to learn grammar and effectively use language skills through these grammar rules in order to communicate in the target language, he or she first needs to prepare the basic groundwork, that is, necessary vocabulary. Thus, words are key to understanding, explaining and communicating and of high priority in for foreign language learning.

There is a general consensus among every stakeholder of the foreign language learning process about the necessity of enriching vocabulary in the target language. The enrichment of vocabulary is, directly and indirectly, a part of developing language skills in that it fundamentally forms the basis for language learning. Vocabulary thereby facilitates the effective use of language skills and serves a bridge between these skills. Therefore, vocabulary teaching is an essential requirement for foreign or second language learning. The literature involves a variety of views and approaches regarding how to teach vocabulary. These can be gathered into three groups including those who favour direct vocabulary instruction (Coady, 1993; Ellis, 1994; Graves; 2006; Harmer, 1991), those who support indirect vocabulary instruction (Hermann, 2003; Hulstijn, 2003; Nagy, 1997; Wode, 1999), and those who urge a mixed model of direct and indirect vocabulary instruction (Nation, 2001; Schmitt, 2007). Although foreign language learning and teaching span a long period of time, the diversity, multiplicity and complexity of vocabulary, subject, rules and learning outcomes to be achieved can be burdensome. Additionally, considering that the period of study and resources available are limited, it seems that a balanced combination of direct and indirect methods of vocabulary instruction will provide the optimum learning success. In fact, a mixed model of direct and indirect vocabulary instruction ensures the elimination of any possible failure that may arise from the nature of the separate methods.

The limited time allocated for the language teaching process, the number of words that can fit into this time period, the capacity of the brain to learn words in a certain period of time, and most importantly learning being entirely an internal process, regardless of whether direct or indirect

vocabulary instruction is used, make it necessary for learners to use strategies that help to organize their in-class and out-of-class vocabulary learning. Strategies that can be employed while learning vocabulary are actually a sub-dimension of language learning strategies. The literature argues that vocabulary learning strategies have an important place in vocabulary learning and should be considered a part of the entire process (Nation, 1990; Hedge, 2000). Vocabulary learning strategies have been variously classified by scholars taking into account the dimensions of cognitive and social psychology (Gu & Johnson, 1996; Schmitt, 1997; Oxford, 1990). However, these classifications are very similar to each other. Oxford (1990), for example, proposed direct and indirect learning strategies which are further divided into six subcategories: cognitive, metacognitive, memory-related, compensatory, affective, and social. Schmitt (1997) distinguished between discovery and consolidation vocabulary learning strategies which include five subcategories: determination, social, memory, cognitive and metacognitive. All these strategies cover the types of activities learners can use during and after vocabulary learning. Memory strategies are strategies whereby learners commit words to memory by linking their learning of new words to their existing vocabulary. Cognitive strategies are strategies which are based on the refreshment of memory and involve taking notes and keeping vocabulary notebooks and words lists by frequently repeating them. Compensatory strategies involve substituting a word when it is not remembered, predicting the meaning of words using context clues, and making use of mother tongue and body language to avoid communication breakdowns. Metacognitive strategies are strategies whereby learners plan, organize and evaluate their own learning by collecting materials and identifying learning needs, studying method and studying speed. Affective strategies involve listening to music, relaxation, self-reward, self-encouragement, and controlling emotions, which all help learners to relieve learning anxiety and make learning attitudes more positive. Social strategies involve asking questions, asking for correction of mistakes, studying with classmates, and learning while helping classmates, which all help learners to communicate and cooperate in the target language (Oxford, 1990; Schmitt, 1997).

A review of literature has shown that most national and international research on the use of vocabulary learning strategies considered to be a major part of teaching and learning vocabulary in foreign languages address learners of English, while there is a lack of research on vocabulary learning strategies used by learners of, for example, Turkish, German, French, Spanish, and Arabic. Considering this lack of research on learners of Turkish, the literature includes, to the best of the researcher's knowledge, five pieces of research on vocabulary learning strategies used by learners of Turkish. Among them, four were carried out with learners of Turkish as a second language (TSL) in Turkey, while one was carried out with learners of Turkish as a foreign language (TFL) in India. These pieces of research had a limited number of participants and did not compare the use of vocabulary learning strategies among learners of TSL and TFL. Only two analyzed the difference between language levels but did not cover all language levels. That being so, there is a substantial gap in the

existing literature. Additionally, there has been no research that investigates whether there is an association between the vocabulary of learners of Turkish and their use of vocabulary learning strategies. Thus, this study makes an important contribution to the relevant literature by addressing both learners of TSL and of TFL in a larger sample of learners of different language levels, investigating which vocabulary learning strategies they use and how often they use these strategies, determining whether the use of strategies is influenced by a set of variables (age, gender, language level, previous learning of another foreign language, the place of learning, and vocabulary achievement), and identifying whether there is a relationship between the use of vocabulary learning strategies and the vocabulary of learners.

Against this background, this study set out to investigate which vocabulary learning strategies learners of Turkish in Turkey and abroad use, to compare and contrast vocabulary learning strategies used by these two group of learners, to determine whether vocabulary learning strategies used by the learners are affected by a set of variables including age, gender, language level, and previous learning of another foreign language, and to identify the relationship, if any, the use of vocabulary learning strategies and the vocabulary of learners. To this end, the study sought answers to the following questions:

1. Which vocabulary learning strategies do the learners of Turkish in Turkey use?

1.1. What effect does gender have on the use of vocabulary learning strategies?

1.2. What effect does previous learning of another foreign language have on the use of vocabulary learning strategies?

2. Which vocabulary learning strategies do the overseas learners of Turkish use?

2.1. What effect does gender have on the use of vocabulary learning strategies?

2.2. What effect does previous learning of another foreign language have on the use of vocabulary learning strategies?

3. What effect does language level have on the use of vocabulary learning strategies?

4. Is there a significant difference between the learners of Turkish in Turkey and the overseas learners of Turkish in terms of the use of vocabulary learning strategies?

5. Is there a significant difference between the learners of Turkish in Turkey and the overseas learners of Turkish in terms of their vocabulary?

6. Is there a relationship between vocabulary and the use of vocabulary learning strategies?

Methods

Research Model

This study used a relational screening model that allows drawing comparisons and correlations. This model aims to identify the presence and/or degree of correlation between two or more variables (Creswell, 2012) and to describe a past or present situation as it is (Büyüköztürk, Çakmak, K., Akgün, Ö. E., Karadeniz, Ş. & Demirel, F., 2011; Karasar, 2016).

Population and Sample

The population of the study consisted of learners of TFL and TSL. The study recruited a convenience sample of 182 foreign students of different levels. Among them, 100 were learning Turkish in Turkey and 82 learn Turkish abroad. 95 (52.2%) were female and 85 (47.8%) were male. Considering language levels, 54 learners are at A1 level, 51 at A2 level, 50 at B1 level, and 27 at B2 level.

Data Collection Instruments

Vocabulary learning strategies used by learners of TSL and TFL were identified using the Foreign Language Vocabulary Learning Strategies Scale (FLVLSS) developed by Kocaman and Kızılkaya-Cumaoğlu (2014) drawing on Oxford's Strategy Inventory for Language Learning (1990). The FLVLSS is a 32-item, 5-point Likert scale consisting of 6 sub-scales: "Memory Strategies", "Cognitive Strategies", "Compensatory Strategies", "Metacognitive Strategies", "Affective Strategies", and "Social Strategies". The Cronbach's alpha coefficient of the scale is 0.89. The highest score that can be obtained on the FLVLSS is 160 and the lowest score is 32. To assess the frequency of strategy use, the mean score of each sub-scale is computed by dividing the sum of each sub-scale by the number of items in the relevant sub-scale. This procedure gives three levels of frequency: the range of 1.0 to 2.4 indicates a *low*-frequency strategy use, 2.5 to 3.4 indicates a *medium* frequency, and 3.5 to 5.0 indicates a *high* frequency.

Vocabulary knowledge of learners of TSL and TFL was identified using vocabulary achievement tests designed by the researcher. These tests aimed to determine whether the learners had learned the words they should have at their respective level rather than measuring their entire vocabulary. To this end, a pool of words was first generated using words in A1-, A2-, B1- and B2-level textbooks. A 25-question vocabulary test was prepared for each level and the tests were sent to experts for review. The final forms of tests established in line with expert recommendations were piloted with a group of 5 students for each level. On the basis of the results of the pilot study, 22 items in the tests were revised and the tests were administered to students of relevant levels to conduct an

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item analysis. According to the results of the item analysis, the test items were valid and reliable. Table 1 below presents the item difficulty, item discrimination and reliability of the tests.

Table 1. Statistics on Vocabulary Tests

Language Level	N	Arithmetic Mean	Mean Item Difficulty	Mean Item Discrimination	Kr-20
A1	49	14.825	0.46	0.641	0.897
A2	46	16.304	0.55	0.612	0.865
B1	37	17.710	0.59	0.588	0.849
B2	34	18.902	0.67	0.481	0.826

As seen in the table, the test items have a medium difficulty, an adequate discrimination, and a high reliability. Although the tests test whether learners know 25 words in each test, learners need to have other words in their vocabulary in order to give correct answers. In this regard, the A1-level test consists of 318 words, the A2-level test 379 words, the B1-level test 441 words, and the B2-level test 465 words. The word count includes repeated words, prepositions, and conjunctions.

Data Analysis

The collected data were coded, digitalized and then analysed using SPSS statistics software. First, the normality of the data distribution was checked to determine the statistical tests to be used in the analysis of the data. To this end, the coefficients of skewness and kurtosis were calculated and the Kolmogorov-Smirnov test was used on the basis of the sample size. In the skewness and kurtosis normality test, if values obtained by dividing the skewness and kurtosis coefficients by their standard errors fall within the range of -1.96 and +1.96, it is considered to be indicative of a normal distribution (Can, 2017, p. 85). In the Kolmogorov-Smirnov normality test, if the p-value is greater than α=.05, it is indicative of a normal distribution at this level of significance (Mertler & Vannatta, 2005). In this study, the results of the normality tests showed that scores on the FLVLSS were normally distributed in terms of the place of learning Turkish, previous learning of another foreign language, and gender, while scores on the vocabulary tests were not normally distributed in terms of the place of learning Turkish. Thus, parametric tests were used to test the normally distributed data and non-parametric tests to test the non-normally distributed data.

The frequency of the use of vocabulary learning strategies was analyzed using descriptive statistics and the arithmetic mean. The independent samples t-test was used to find out whether gender, previous learning of another foreign language, the place of learning Turkish had an effect on the use of strategies. The t-test assesses whether the mean value of a group differs from the predetermined value in terms of a variable, whether there is a difference between two independent groups, and whether reactions of a group vary under different conditions (Yazıcıoğlu & Erdoğan, 2014, p. 254).

The Mann-Whitney U test was used to determine whether learning Turkish in Turkey or abroad has an effect on vocabulary. The Mann-Whitney U test tests whether two sample means significantly differ, that is, whether two independent samples that come from the same population have the same distribution in terms of a variable (Büyüköztürk, 2017, p. 165). This test is a non-parametric alternative to the independent samples t-test and compares medians rather than means, as opposed to parametric tests (Pallant, 2016, p. 249).

One-way analysis of variance (ANOVA) was used to test whether learners' language levels had an effect on the use of vocabulary learning strategies. The Tukey's post-hoc test was used to detect significant differences between language levels. One-way ANOVA tests whether the difference between the means of two or more independent samples is significantly different from zero (Büyüköztürk, 2017, p. 48). Analysis of variance compares the variability within each of the groups (believed to result from chance) with the variance between the different groups (believed to be caused by the independent variable) (Pallant, 2016, p. 277).

Finally, correlation analysis was used to find the relationship between the use of vocabulary learning strategies and vocabulary achievement. Correlation analysis determines whether there is a relatedness between two variables measured at the interval or ratio level and to describe the strength and direction of the linear relationship (Yazıcıoğlu & Erdoğan, 2017, p. 335; Pallant, 2016, p. 144).

Data Collection

The data were collected from the learners of Turkish in Turkey and abroad in 2017 and 2018. Before the learners were given the FLVLSS and vocabulary tests, teachers administering the scale and tests were met to agree on what to do during the application. In this regard, the learners were informed about the purpose of the research before the application. The learners were then given the scale in both Turkish and English versions. The scale items were read aloud and explained by teachers. The learners later chose the most appropriate option for each item. By doing so, it was ensured that all learners of different levels completely understood the items.

The vocabulary tests were administered one day after the FLVLSS was administered. The learners were informed that this test was not meant to be an exam but carried out only for a scientific purpose. The learners were given 40 minutes for 25 questions. The test was completed within a course hour. The learners were given the answers next class.

Results

The results of analysis were discussed considering the questions of this study aiming to investigate which vocabulary learning strategies the learners of Turkish in Turkey and abroad use, to compare and contrast vocabulary learning strategies used by these two group of learners, to determine

whether vocabulary learning strategies used by the learners are affected by a set of variables including age, gender, language level, and previous learning of another foreign language, and to identify the relationship, if any, the use of vocabulary learning strategies and the vocabulary of learners.

Table 2 presents the results of the descriptive analysis run to identify which vocabulary learning strategies the learners of Turkish in Turkey use in line with the question *"Which vocabulary learning strategies the learners of Turkish in Turkey use?"*.

Table 2. Results on Vocabulary Learning Strategies Used by the Learners of Turkish in Turkey

| Language Level	N	Memory $\overline{X}$	Cognitive $\overline{X}$	Compensator $\overline{X}$	Metacognitive $\overline{X}$	Affective $\overline{X}$	Social $\overline{X}$	All Strategies $\overline{\overline{X}}$
A1	30	3.94	3.85	3.52	3.72	3.59	3.75	3.75
A2	28	3.72	3.54	3.43	3.56	3.46	3.52	3.55
B1	27	3.41	3.21	3.11	3.34	3.16	3.25	3.26
B2	15	3.02	2.95	2.65	3.18	2.59	2.98	2.89
Total	100	3.52	3.39	3.18	3.45	3.20	3.37	3.36

Considering the data in Table 2, among the learners of Turkish in Turkey, A1-level learners had a *high* frequency of strategy use. Ranked from the most to the least frequently used, the strategies used by A1-level learners were *memory, cognitive, social, metacognitive*, *affective,* and *compensatory*. Like A1-level learners, A2-level learners had a *high* frequency of strategy use. Ranked from the most to the least frequently used, the strategies used by A2-level learners were *memory, cognitive, metacognitive, social, affective,* and *compensatory*. For A1- and A2-level learners, the most frequently used memory strategy was *"I constantly repeat the Turkish words I learned so that I can remember them"*, while the least frequently used compensatory strategy was *"I learn how to pronounce a Turkish word by listening to it a few times through technology"*.

B1-level learners had a *medium* frequency of strategy use. They used, in order of frequency, *memory, metacognitive, social, cognitive, affective,* and *compensatory*. For B1-level learners, the most frequently used strategy was *"I relate new Turkish words with those I already know"*, while the least frequently used strategy was *"I prefer to learn words required for my course through videos"*.

B2-level learners also had a *medium* frequency of strategy use. They used, in order of frequency, *metacognitive, memory, social, cognitive, compensatory,* and *affective*. They most frequently used the strategy *"While learning Turkish words, I try to learn their pronunciation along with their meaning"*. They least frequently used the strategy *"Listening to music in the background while learning Turkish words soothes me"*.

Considering the learners of Turkish in Turkey as a group regardless of their language level, they had a *medium* frequency of strategy use. They preferred to use, in order of frequency, *memory,*

metacognitive, cognitive, social, affective, and *compensatory*. The graph below shows the frequency of strategy use on the basis of language levels of the learners.
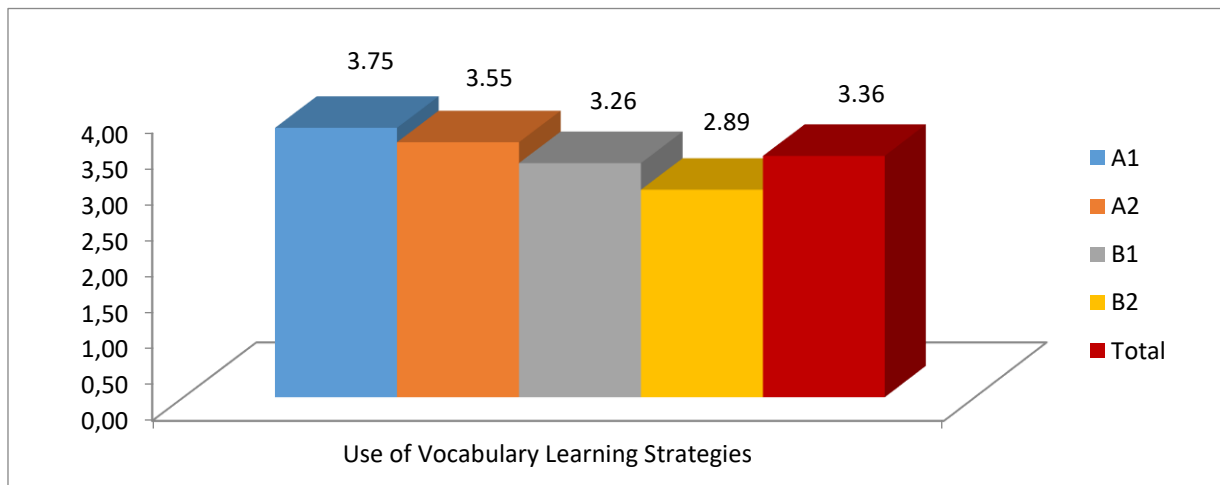
Graph 1. The Frequency of Strategy Use among the Learners of Turkish in Turkey according to Their Levels

Considering the data in Table 2 and Graph 1, A1-level learners had the highest frequency of strategy use, while B2-level had the lowest frequency of strategy use. Accordingly, it seems that the frequency of strategy use steadily declined, moving from A1 to B2 level.

The independent samples t-test was run to find out whether gender had an effect on vocabulary learning strategies preferred by the learners of Turkish in Turkey in line with the question *"What effect does gender have on the use of vocabulary learning strategies?"*. Table 3 below shows the results of the t-test.

Table 3. The T-test Results on the Effect of Gender on the Use of Vocabulary Learning Strategies

Language Level	Gender	N	$\bar{X}$	SD	$\bar{X}f$	df	t	p*
All levels	Female	46	112.89	29.94	5.71	98	.974	.333
	Male	54	107.18	28.58				

* Significant at p<.05

As seen in Table 3, there was a difference of 5.71 between the mean total scores of female and male learners in favour of female learners in terms of the frequency of strategy use; however, this difference was not statistically significant ($t_{(98)}$=0.974, p= 0.33).

Table 4 shows the results of the t-test run to find out whether previous learning of another language had an effect on vocabulary learning strategies preferred by the learners of Turkish in Turkey in line with the question *"What effect does previous learning of another foreign language have on the use of vocabulary learning strategies?"*.

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Table 4. The T-test Results on the Effect of Previous Learning of another Language on the Use of Vocabulary Learning Strategies

Language Level	Learning another language	N	$\bar{X}$	SD	$\bar{X}f$	df	t	p*
All levels	Yes	61	126.36	20.85	42.44	98	10.049	.000
	No	39	83.92	20.19				

* Significant at p<.05

As seen in Table 4, among the learners of Turkish in Turkey, those who had previously learned another language used vocabulary learning strategies more frequently compared to those who had not learned. There was a difference of 42.44 between the mean total scores of the two groups. According to the results of the t-test, this difference was statistically significant ($t_{(98)}$=10.049, p= 0.00).

Table 5 presents the results of the descriptive analysis run to identify which vocabulary learning strategies the overseas learners of Turkish use in line with the question *"Which vocabulary learning strategies do the overseas learners of Turkish use?"*.

Table 5. Results on Vocabulary Learning Strategies Used by the Overseas Learners of Turkish

| Language Level	N	Memory $\bar{X}$	Cognitive $\bar{X}$	Compensatory $\bar{X}$	Metacognitive $\bar{X}$	Affective $\bar{X}$	Social $\bar{X}$	All Strategies $\bar{X}$
A1	24	3.58	3.52	3.41	3.52	3.44	3.62	3.52
A2	23	3.50	3.35	3.16	3.44	3.30	3.39	3.37
B1	23	3.12	3.02	2.77	3.09	2.95	3.08	3.02
B2	12	2.86	2.75	2.89	2.98	2.78	2.62	2.80
Total	82	3.26	3.16	3.06	3.26	3.12	3.18	3.18

Considering the data in Table 5, among the overseas learners of Turkish, A1-level learners had a *high* frequency of strategy use with a mean score of 3.52. Ranked from the most to the least frequently used, the strategies used by A1-level learners were *social, memory, cognitive, metacognitive, affective,* and *compensatory*. For A1-level learners, the most frequently used strategy was *"I need my teacher's help while learning Turkish words"*, while the least frequently used strategy was *"I prefer to learn words required for my course through videos"*.

A2-level learners had a *medium* frequency of strategy use with a mean score of 3.37. Ranked from the most to the least frequently used, the strategies used by A2-level learners were *memory, metacognitive, social, cognitive, affective,* and *compensatory*. They most frequently used the strategy *"I constantly repeat the Turkish words I learned so that I can remember them"*, while they least frequently used the strategy *"I learn how to pronounce a Turkish word by listening to it a few times through technology"*.

B1-level learners also had a *medium* frequency of strategy use with a mean score of 3.02. They used, in order of frequency, *memory, metacognitive, social, cognitive, affective*, and *compensatory*. They most frequently used the strategy *I relate new Turkish words with those I already know"*, while they least frequently used the strategy *"I learn how to pronounce a Turkish word by listening to it a few times through technology"*.

B2-level learners also had a *medium* frequency of strategy use with a mean score of 2.80. They used, in order of frequency, *metacognitive, compensatory, memory, affective, cognitive*, and *social*. For B2-level learners, the most frequently used strategy was *"I try to find the most appropriate method when learning Turkish words"*, while the least frequently used strategy was *"I ask my friends to correct me when I mispronounce Turkish words I learned"*.

Considering the overseas learners of Turkish as a group regardless of their language level, they had a *medium* frequency of strategy use with a mean score of 3.18. They preferred to use, in order of frequency, *memory, metacognitive, social, cognitive, affective,* and *compensatory*. The graph below shows the frequency of strategy use on the basis of language levels of the learners.
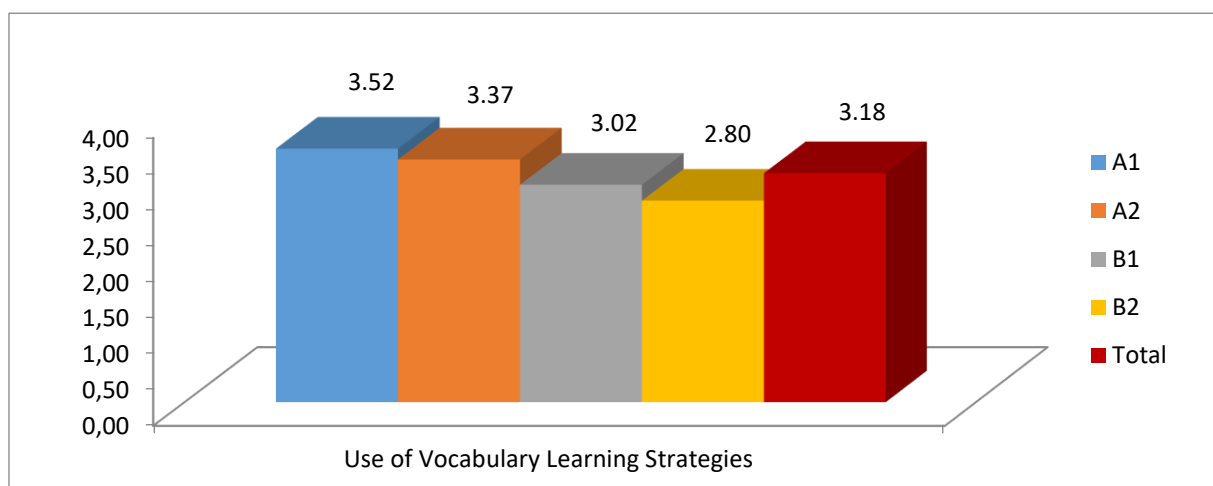
Graph 2. The Frequency of Strategy Use among the Overseas Learners of Turkish according to Their Levels

Considering the data in Table 5 and Graph 2, A1-level learners had the highest frequency of strategy use, while B2-level had the lowest frequency of strategy use. Accordingly, it seems that the frequency of strategy use steadily declined, moving from A1 to B2 level.

The independent samples t-test was run to determine whether gender had an effect on vocabulary learning strategies preferred by the overseas learners of Turkish in line with the question *"What effect does gender have on the use of vocabulary learning strategies?"*. Table 6 below shows the results of the t-test.

Table 6. The T-test Results on the Effect of Gender on the Use of Vocabulary Learning Strategies

Language Level	Gender	N	$\bar{X}$	SD	$\bar{X}$f	df	t	p*
All levels	Female	49	103.41	30.687	-0.13	80	-.021	.983
	Male	33	103.54	27.203				

* Significant at p<.05

As seen in Table 6, there was a slight difference of 0.13 between the mean total scores of female and male learners in favour of male learners in terms of the frequency of strategy use; however, according to the results of the t-test, this difference was not statistically significant ($t_{(80)}$=-0.21, p= 0.983).

Table 7 shows the results of the t-test run to find out whether previous learning of another language had an effect on vocabulary learning strategies preferred by the overseas learners of Turkish in line with the question *"What effect does previous learning of another foreign language have on the use of vocabulary learning strategies?"*.

Table 7. The T-test Results on the Effect of Previous Learning of Another Language on the Use of Vocabulary Learning Strategies

Language Level	Learning another language	N	$\bar{X}$	SD	$\bar{X}$f	df	t	p*
All levels	Yes	48	119.17	22.371	37.88	80	7.524	.000
	No	34	81.29	22.573				

* Significant at p<.05

Considering the analysis results given in Table 7, among the overseas learners of Turkish, those who had previously learned another foreign or second language used vocabulary learning strategies more frequently compared to those who had not learned. There was a difference of 37.88 between the mean total scores of the two groups. According to the results of the t-test, this difference was statistically significant ($t_{(80)}$=7.524, p= 0.00).

Table 8 below shows the results of one-way ANOVA run to find out whether the current language levels of learners of Turkish in Turkey and abroad had an effect on their use of vocabulary learning strategies in line with the *question "What effect does language level have on the use of vocabulary learning strategies?"*.

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Table 8. The Results of One-way ANOVA on the Effect of Language Level on the Use of Vocabulary Learning Strategies

Language Level	N	$\bar{X}$	SD	Source of Variance	SS	df	MS	p*
A1	54	116.70	24.634	Between-groups	14538.606	3	4846.202	
A2	51	111.02	30.536					
B1	50	100.72	30.081					.001
B2	27	91.29	25.912	Within-groups	140583.949	178	789.797	
Total	182	106.95	29.275	Total	155122.555	181		

* Significant at p<.05

As seen in Table 8, A1-level learners had the highest frequency of strategy use with a mean score of 116.70, while B2-level learners had the lowest frequency of strategy use with a mean score of 91.29. Considering the frequency of strategy use, A2-level learners ranked second with a mean score of 111.02, while B1-level learners ranked third with a mean score of 100.72. According to the results of one-way ANOVA run to determine whether this difference between language levels was statistically significant, the current language level of the learners led to a significant variation in the frequency of strategy use. Table 9 presents the results of the Tukey's post-hoc test run to determine between which language levels significant differences occurred.

Table 9. The Results of the Tukey's Test on the Significance of Difference between Language Levels

Language Level	Language Level	Difference of Means	p*
A1	A2	5.68	.729
	B1	15.98*	.022
	B2	25.41*	.001
A2	B1	10.29	.257
	B2	19.72*	.019
B1	B2	9.42	.498

* Significant at p<.05

As seen in Table 9, the results of the Tukey's test showed a significant difference between the mean frequency of strategy use in A1 level and the mean frequency in B1 and B2 levels. They also showed a significant difference between the mean frequency of strategy use in A2 level and the mean frequency in B2 level. Accordingly, it seems that the current language levels of the learners had an effect on their use of vocabulary learning strategies. This effect means a decline in the frequency of strategy use as language level increases.

Whether the place of learning Turkish led to a significant variation in the use of vocabulary learning strategies was another variable analyzed in this study. Table 10 below presents the results of the independent samples t-test run to answer the question *"Is there a significant difference between the*

learners of Turkish in Turkey and the overseas learners of Turkish in terms of the use of vocabulary learning strategies?".

Table 10. The T-test Results on the Effect of the Place of Learning on the Use of Vocabulary Learning Strategies

Language Levels	Variable	N	$\bar{X}$	SD	$\bar{X}$f	df	t	p*
All levels	Turkey	100	109.81	29.202	6.35	180	1.460	.146
	Overseas	82	103.46	29.162				

* Significant at p<.05

As seen in Table 10, the mean score of the learners of Turkish in Turkey was 109.81 and that of the overseas learners of Turkish was 103.46. Accordingly, there was a difference of 6.35; however, this difference was not statistically significant. Thus, it is possible to state that learning Turkish in Turkey or abroad does not have a significant effect on the use of strategies.

The Mann-Whitney U test was used to determine whether the place of learning Turkish had an effect on vocabulary achievement, in line with the question *"Is there a significant difference between the learners of Turkish in Turkey and the overseas learners of Turkish in terms of their vocabulary?".* The analysis results are given in the table below.

Table 11. The Results of the Mann-Whitney U Test on the Effect of the Place of Learning on Vocabulary Achievement

Language Level	Variable	N	$\bar{X}$	MR	SR	U	z	p*
All levels	Turkey	100	17.46	100.01	10001.0	3249.00	-2.411	.016
	Overseas	82	15.65	81.12	6652.0			

* Significant at p<.05

Considering the mean achievement scores that the learners of all language levels had on the 25-question vocabulary test, the mean score was 17.46 for the learners in Turkey and 15.65 for the overseas learners. There was a difference of 1.81 between the mean scores of the two groups in favour of the learners in Turkey. The t-test results showed that this difference was statistically significant. This result indicates that learning Turkish in Turkey has a positive effect on vocabulary achievement.

The study lastly examined whether there was a relationship between the use of vocabulary learning strategies and the vocabulary achievement of the learners. Correlation analysis was run to identify the presence and direction of this linear relationship in line with the question *"Is there a relationship between vocabulary and the use of vocabulary learning strategies?".* The analysis results are given in the table below.

Table 12. The Results of the Correlation Analysis on the Strategy and Vocabulary Scores

Language Level	Variables	N	r	p*
A1		54	.951	.00
A2		51	.972	.00
B1	Vocabulary Learning Strategies - Vocabulary	50	.976	.00
B2		27	.932	.00
All levels		182	.759	.00

* Significant at p<.05

According to the results of correlation analysis in Table 12, considering A1, A2, B1, and B2 separately and all levels together, there was a significant strong positive correlation between the use of vocabulary learning strategies and the vocabulary of the learners. This correlation indicates that there is a positive interaction between vocabulary and the use of vocabulary learning strategies, and the two variables are not independent. Accordingly, it is now possible to state that learners who highly frequently use vocabulary learning strategies are more successful in vocabulary. Thus, it seems that the more frequently strategies are used, the greater vocabulary achievement will be.

Discussion, Conclusion and Suggestions

This study using a relational screening model attempted to identify vocabulary learning strategies used by the learners of Turkish in Turkey and abroad and to reveal whether there was a relationship between strategy use and vocabulary. The results of the study are discussed below.

Among the learners of Turkish in Turkey, the most frequently used vocabulary learning strategies were *memory strategies* for A1-, A2- and B1-level learners, and *metacognitive strategies* for B2-level learners. The least frequently used strategies were *compensatory strategies* for A1-, A2-, and B1-level learners, and *affective strategies* for B2-level learners. Considering all the learners of Turkish in Turkey as a group regardless of their language level, they most frequently used *memory strategies*, while they least frequently used *compensatory strategies*. The results of this study are both consistent and inconsistent with previous four studies that examined the vocabulary learning strategies used by A1-, A2, B1-, and B2-level learners of Turkish in Turkey. Accordingly, in contrast to the present study, A1-level learners most frequently used *affective strategies* (Kocaman et al., 2018) and least frequently used *social strategies* (Kocaman et al., 2018) and *cognitive strategies* (Baskın et al., 2017). In the study of Kocaman et al. (2018), A2-level learners, unlike those in the present study, most frequently used *affective strategies* and least frequently used *social strategies*. In parallel to the present study, Biçer and Polatcan (2015) reported that B1-level learners most frequently used *memory strategies* and least frequently used *compensatory strategies*. In these previous studies, B2-level learners most frequently used *affective strategies* (Kocaman et al., 2018) and *social strategies* (Biçer & Polatcan 2015; Tok & Yığın, 2014), while they least frequently used *social strategies* (Kocaman et

al., 2018), *cognitive strategies* (Biçer & Polatcan 2015), and *memory strategies* (Tok & Yığın, 2014). Thus, the results on B2-level learners in the previous studies are not consistent with the present study.

The present study found that among the overseas learners of TFL, the most frequently used vocabulary learning strategies were *social strategies* for A1-level learners, *memory strategies* for A2- and B1-level learners, and *metacognitive strategies* for B2-level learners. The least frequently used strategies were *compensatory strategies* for A1-, A2-, and B1-level learners and *social strategies* for B2-level learners. Considering all the overseas learners of Turkish as a group regardless of their language level, they most frequently used *memory strategies* and least frequently used *compensatory strategies*, while they had a *medium* frequency of strategy use. Syed (2014) investigated vocabulary learning strategies used by overseas learners of Turkish in a sample of Indian students of different language levels and reported *memory strategies* as the most frequently used strategies, like the present study, and *metacognitive strategies* as the least frequently used strategies, unlike the present study. In agreement with the present study, the author also reported a *medium* frequency of strategy use.

Considering the results of the present study together, for all the participants, *memory strategies* were the most frequently used strategies, while *compensatory strategies* were the least frequently used. Considering the content of *memory* strategies, users of these strategies often tend to learn words mechanically and much prefer practices of memorisation. Considering the content of *compensatory* strategies, learners prefer learning words through technological applications, videos or games. This result can be triggered by two possible factors. First, learners do not consider such tools to be helpful or do not need them. Second, the number and quality of such tools that learners of Turkish can use are insufficient. Considering the younger generation who are willing and inclined to learn through technological tools, the latter seems to be more reasonable. Therefore, technological applications should be developed and be increased in number to satisfy the vocabulary learning needs of learners of Turkish.

Considering all vocabulary learning strategies together, A1- and A2-level learners had a *high* frequency of strategy use, while B1- and B2-level learners had a *medium* frequency. Considering the learners of all levels as a group, the mean frequency of strategy use was *medium*. The frequency of strategy was found in previous studies to be *high* (Kocaman et al., 2018) and *medium* (Baskın et al., 2017) among A1-level learners, *high* among A2-level learners (Kocaman et al., 2018), *medium* among B1-level learners (Biçer & Polatcan, 2015), and *high* (Biçer & Polatcan, 2015) and *medium* (Kocaman et al., 2018) among B2-level learners. Accordingly, the results of the present study are consistent with the previous study. Considering all these results together, it seems to be helpful to carry out strategy teaching and strategy awareness training practices to promote strategy use, which was found to be of *medium* frequency. As noted by Oxford (1990), the medium frequency of strategy use indicates that learners are aware of strategies but need to be encouraged to use them more frequently.

The present study also found that the use of vocabulary learning strategies did not differ by gender among the learners of Turkish both in Turkey and abroad. This result applies to all language levels. Accordingly, gender did not affect the frequency of strategy use among the learners of Turkish. This result runs in parallel to two previous studies. However, Kocaman et al. (2018) and Baskın et al. (2017) reported no statistically significant difference according to gender; however, the frequency of strategy use was slightly higher among male learners. Contrary to previous studies, the present study found that the frequency of strategy use was higher among female learners. However, as explained above, the difference did not affect the use of vocabulary learning strategies. Thus, it is now possible to state that gender does not predict the frequency of strategy use in foreign language learning.

The study identified a statistically significant difference between the learners who had previously learned another foreign language and those who had not learned in terms of the frequency of strategy use. Accordingly, among the learners of Turkish in Turkey and abroad, those had previously learned another language used vocabulary learning strategies more frequently. This is an expectable result since individuals with previous language learning experience are more likely to use their experiences while learning a new language. Additionally, this experience offers a clear advantage by helping learners to wisely decide what, where, and how to learn. Indeed, these learners know from experience which strategies are more appropriate and helpful for them and act accordingly.

The results of this study showed that the current language level of the learners of TSL and TFL had an effect on their use of strategies and the frequency of strategy use. Accordingly, the highest frequency of strategy used was found in A1 level and the lowest frequency was in B2 level. Thus, the frequency of strategy use was likely to decline in order of A1>A2>B1>B2. This difference between language levels was found to be statistically significant. A1-level learners had a significantly different frequency of strategy use compared to B1- and B2-level learners and it applies to A2-level learners compared to B2-level learners. These results indicate a steady decline in the frequency of strategy use as language level advanced. This situation can arise from the fact that learners feel more competent in Turkish and thus have a low-level motivation for learning vocabulary.

The results of this study showed that learning Turkish in Turkey or in a country where Turkish is not spoken as a first language had an effect on the use of vocabulary learning strategies; however, this effect was statistically insignificant. This is a reasonable result because the use of vocabulary learning strategies is quite related to interest in learning. Thus, the willingness to learn vocabulary in the target language and the tendency to use vocabulary learning strategies are independent of location.

Contrary to its insignificant effect on the frequency of strategy used, the place of learning led to a significant variation in vocabulary achievement. Accordingly, the learners of Turkish in Turkey were more advanced in terms of vocabulary compared to the overseas learners. Thus, the results on

vocabulary achievement were in favour of the learners in Turkey. This result can be explained by the fact that the learners in Turkey are more interested and motivated to learn Turkish because they have to communicate, they have the opportunity to have access to more resources of quality, they receive more meaningful and understandable linguistic inputs by using Turkish in their everyday life, and they more frequently communicate in Turkish by living in an atmosphere surrounded by Turkish.

The last result of this study is the significant strong positive relationship found between the use of vocabulary learning strategies and vocabulary achievement of the learners of TSL and TFL. Accordingly, as the frequency of strategy use and the number of strategies used increase, so does vocabulary achievement. This situation indicates an important positive interaction between strategy use and vocabulary. No previous study has investigated the relationship between strategy use and vocabulary in TSL or TFL teaching. However, the result of the present study is in agreement with previous studies investigating the relationship between strategy use and vocabulary in a sample of learners of English and Spanish (Gu, 1994; Gu & Johnson, 1996; Barcroft, 2009; Şener, 2003; Hamzah, Kafipour, & Abdullah, 2009; Waldvogel, 2013; Schmitt, 1997; Lee, 2007). Waldvogel (2013) found a positive correlation between vocabulary size and vocabulary learning strategies in a sample of 475 different-level learners of Spanish as a foreign language. The author reported that less experienced learners of Spanish as a foreign language may be less effective at managing their own vocabulary learning and are not always aware of the benefit of using vocabulary learning strategies. Previous studies on Korean (Lee, 2007), Indonesian (Munandar, Nurweni, & Mahpul, 2015), Thai (Nirattisai & Chiramanee, 2014; Komol & Sripetpun, 2011), Taiwanese (Chang, 2014), Algerian (Nacera, 2010), Iranian (Hamzah, Kafipour, Abdullah, 2009), Chinese (Gu, 1994), and Turkish (Şener, 2015; Bozgeyik, 2011; Tanyer & Öztürk, 2014, Alemdari, 2010) learners of English have reported that learners who are more proficient in vocabulary use vocabulary learning strategies more effectively and there is a significant positive relationship between strategy use and vocabulary.

Taken together, the results of studies on learners of English, Spanish and Turkish are in accord with the nature of language learning because learners who more frequently use vocabulary learning strategies will naturally learn more words than those who less frequently use strategies. Indeed, the use of vocabulary learning strategies and the frequency of strategy use, even alone, have the potential to point to interest, need and effort to learn vocabulary. However, the frequent use of vocabulary learning strategies does not necessarily guarantee that learners learn more words and have a larger vocabulary. For example, learners who need their teacher's help while learning vocabulary and continuously use this strategy may become dependent on their teachers. Likewise, learners who often ask friends how to pronounce words or to correct them when they mispronounce words may become dependent on friends. Using flashcards, posting flashcards somewhere visible, carrying flashcards in pockets, and keeping vocabulary books alone are not enough to ensure a rich vocabulary. These strategies should be

considered as supportive steps for vocabulary learning and as effective aids that learners can use while improving their vocabulary. Indeed, vocabulary learning is seen as a process that learners should carry out internally. Having said that, the choice of strategies based on skills-based gains and on the level, frequency and theme of words, the determination and implementation of teaching method(s) (direct or indirect) to be preferred in the teaching process, and the planning of activities to ensure the retention and skilful use of vocabulary are not something that learners can overcome by using vocabulary learning strategies. However, the use of vocabulary learning strategies should not be neglected on the basis of this rationale. On the contrary, while learning vocabulary in foreign languages, learners should be encouraged to use vocabulary learning strategies to support vocabulary teaching and they should be given awareness training. As a matter of fact, the time allocated to teaching vocabulary is limited because foreign language teaching involves developing many language skills learning along with teaching grammar. Thus, vocabulary learning strategies are important as solution tools that learners can use to minimize the negativity that may be caused by this limitation. However, vocabulary learning in a foreign language should not rely on only vocabulary learning strategies on the basis of the excuse of limited teaching time. The vocabulary learning process, by its very nature, requires a multidimensional and multicomponent approach. Among these components, vocabulary learning strategies should also be considered to be among factors effective in vocabulary learning in a foreign language.

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