



## Vocabulary Learning Strategies of Turkish EFL Learners at a University Preparatory School

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### Abstract

This study aimed to investigate the vocabulary learning strategies employed by Turkish EFL learners studying at KTO Karatay University Preparatory School. More specifically, the study examined the strategies students used while learning vocabulary and explored the effectiveness of association strategies in vocabulary development. The participants of the study consisted of 61 Turkish EFL students enrolled in intermediate and upper-intermediate level English courses during the 2015–2016 academic year. The participants were randomly assigned to an experimental group and a control group. The study adopted a quantitative research design and utilized a vocabulary learning strategies questionnaire adapted from Fan (2003). In addition, pre-tests and post-tests were administered to both groups in order to measure students' vocabulary achievement. The instructional treatment lasted six weeks. During this process, the experimental group received vocabulary instruction based on association strategies, whereas the control group continued with traditional vocabulary learning practices. The collected data were analyzed using SPSS 21.0. The findings revealed that the students in the experimental group demonstrated significantly higher post-test scores compared to the control group. The results indicated that association strategies contributed positively to students' vocabulary achievement and supported vocabulary retention more effectively than traditional vocabulary instruction. Furthermore, students expressed generally positive attitudes toward the use of association strategies in vocabulary learning.

Keywords: EFL learners, vocabulary learning strategies, association strategy, vocabulary achievement, vocabulary instruction

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## 1. INTRODUCTION

Vocabulary plays a fundamental role in second and foreign language learning. As Wilkins (1972) famously stated, “without grammar very little can be conveyed; without vocabulary nothing can be conveyed.” This statement highlights the essential role of vocabulary knowledge in effective communication and language proficiency. In English as a Foreign Language (EFL) contexts, learners often experience difficulties in acquiring, retaining, and using new vocabulary items effectively. Therefore, identifying effective vocabulary learning strategies has become an important area of research in language education.

Over the years, researchers have examined various vocabulary learning strategies and their effects on language development. These strategies are considered valuable tools that support learner autonomy and improve vocabulary retention. Oxford (1990) categorized language learning strategies into two broad groups: direct and indirect strategies. Similarly, O’Malley and Chamot (1990) classified learning strategies into cognitive, metacognitive, and social/affective categories.

In EFL classrooms, vocabulary instruction has traditionally relied on memorization and translation-based methods. However, recent studies have emphasized the importance of strategy-based vocabulary instruction in enhancing learners’ active engagement and long-term retention. Previous research has demonstrated that vocabulary learning strategies contribute positively to vocabulary acquisition and language achievement (Cohen & Aphek, 1981; Brown & Perry, 1991; Ellis & Beaton, 1993; Gu & Johnson, 1996; Schmitt, 1997; Fan, 2003). Among these strategies, association techniques have attracted considerable attention due to their potential to facilitate meaningful vocabulary learning.

Vocabulary learning strategies enable learners to become more independent and effective in the language learning process. These strategies help students store, retrieve, and use vocabulary more efficiently while also increasing learner motivation and participation in classroom activities. Therefore, examining the effectiveness of vocabulary learning strategies may provide valuable insights for both language teachers and learners in EFL settings.

### 1.1. Purpose of the Study

The primary aim of this study is to investigate the vocabulary learning strategies employed by Turkish EFL learners studying at KTO Karatay University Preparatory School. More specifically, the study seeks to identify the most frequently used vocabulary learning strategies and examine students’ perceptions regarding the usefulness of these strategies. In addition, the study aims to explore the effectiveness of association strategies in improving students’ vocabulary achievement through a six-week instructional treatment.

The study also attempts to determine whether there is a statistically significant difference between the pre-test and post-test scores of the experimental and control groups.

Furthermore, students' attitudes toward the association strategy are examined in order to better understand the role of strategy-based instruction in vocabulary learning. The findings, determined by the results of the questionnaire, are presented in the following tables and are discussed in detail. This study addresses the following research questions:

1. What are preparatory school Turkish EFL students' perceptions of vocabulary learning strategies?
2. What is the most popular vocabulary learning strategy learned by the Turkish preparatory school EFL students?
3. Do Turkish EFL teachers in preparatory schools instruct Vocabulary Learning Strategies that they believe useful in their teaching practices?
4. Is there a meaningful difference in the pre-tests and post-tests of the experimental group and the control group?
5. Will the students' feelings be positive about the procedure?
6. Is there a significant difference of the learners who practice with Association Strategy and the achievement on vocabulary learning of the learner's activities?
7. "What are the learners' attitudes towards Association strategy?"

## **2. LITERATURE REVIEW**

### **2.1. Vocabulary Learning Strategies**

Vocabulary is a crucial component of any language and is indispensable for effective communication and reading comprehension. It is an integral part of language learning and is essential for conveying meaning in any context. The text provided by McCarten (2007) suggests that learners perceive vocabulary as a daunting challenge to master, which encompasses various types of vocabulary, such as collocations, words, phrases, target vocabulary, idioms, grammatical structures, and expressions. From the learners' perspective, vocabulary tasks are of utmost importance in language learning. According to Nation and Waring (1997, cited in Kafipour, Yazdi and Shokrpour, 2011), a minimum of 3000 to 5000 words is necessary for comprehension, while only 2000 to 3000 words are required for productive goals. Consequently, it is recommended to focus on preliminary vocabulary acquisition before advancing to other areas of language learning.

There are a range of vocabulary acquisition techniques that have been identified by researchers and authors. According to Schmitt (2007), these strategies can be categorized into two groups: shallow techniques, which are commonly employed by novice learners, and

deeper techniques, which are preferred by more advanced learners. Shallow techniques involve fundamental practices such as memorization, repetition, and note-taking, while deeper techniques encompass more complex methods like imagery, inference, and the Keyword Method. In another study, Mokhtar, Rawian, Yahaya, Abdullah, and Mohamed (n.d.) identified seven distinct vocabulary learning strategies. These strategies include metacognitive processes, conjecture, dictionary tasks, notetaking approaches, rehearsal memory processes, encoding memory processes, and engaging strategies.

## **2.2. Memory Strategies**

Memory strategies, also known as mnemonics, are techniques that learners employ to facilitate the retention of unfamiliar words (Sanaoui, 1995). The most significant feature of these strategies is that they involve relating new information to already learned material, using symbolism, or grouping. Additionally, they require organizing information in a manner that makes it more memorable (Schmitt, 1997).

## **2.3. Using Pictures and Imagery**

In this method, students acquire the meaning of target words through visual representations rather than definitions. It is generally acknowledged that visual information can enhance the learning process, and this belief is grounded in the common principle of human learning, which posits that "we remember images better than words; hence, we remember words better if they are strongly associated with images" (Underwood, 1989:19). Al-Seghayer (2001) further asserts that the commitment of visual stimuli to vocabulary learning can be attributed to a specific process that aligns verbal control over human beings with their symbolic system, and this process is closely connected with the association of semantic capacity and symbolic system in our brains.

By examining previous theoretical explanations regarding why learning words through pictures promotes the learning process, we can conclude that it is deeply connected with the principles of human learning and the organization of the human mind with respect to its verbal and imagery systems.

## **2.4. Using Related Words**

In this Memory Strategy, new vocabulary is acquired by linking new words to existing words in the target language. This connection can be established through sense relationships, such as synonymy (two words with the same meaning, e.g., ill and sick), coordination (two words existing at the same level, e.g., squirrel and dove), hypernymy (one word is subordinate to the other, e.g., animal and dog), or antonymy (two words with opposite meanings, e.g., black and white).

When examining the vocabulary exercises in English course books, it is evident that a large

number of these exercises, such as finding the synonym of a word, are designed to reinforce these relationships in the learner's mind. The advantage of using related words may be linked to the association of mental lexicon. The findings of word association studies, which aim to provide a picture of the internal lexicon, support this argument. Based on the findings of Sheng et al. (2006), the internal lexicon of individuals becomes more paradigmatically organized (including sense relationships such as antonymy, synonymy, etc.) as they age, and the value of strategies that include related words may come from the fact that they align with the developmental pattern and the organization of the internal lexicon.

## **2.5. Semantic Mapping**

Stahl and Vancil (1986: 62) characterize this technique as follows: "In semantic mapping, an instructor selects a keyword and other target words from the material that students will read. The keyword is recorded on the board, and students are asked to suggest related terms related to the keyword. The instructor writes the suggested words on the board as the students propose them, thereby building a map. The relationships between the keyword and suggested words are then thoroughly discussed. Students are then asked to categorize each section of the map." As demonstrated above, semantic mapping is initiated by the instructor, but it is not entirely teacher directed. The active participation of language learners in suggesting related words and categorizing them is crucial to the success of this method. According to Oxford and Crookall (1990: 20), "semantic mapping visually represents how new words fit into a student's existing schemata," which supports Underwood's (1989) assertion about the significance of visual memory in human learning.

## **3. METHODS AND MATERIALS**

The following section presents the methodological approaches used in the study. Initially, it provides a clear explanation of the research design, participants, the questionnaire used, the technique followed, and the instrument utilised in the study. Next, it provides information on the data collecting device that was utilised for data gathering. Lastly, it outlines the data analytic methodologies employed in the research.

### **3.1. Research Design**

This study adopted a quantitative research design and utilized a survey model. The purpose of the study was to investigate the vocabulary learning strategies employed by preparatory school students learning English as a foreign language. Data were collected through a vocabulary learning strategies questionnaire and analyzed using SPSS 21.0. Statistical analyses were conducted at a 95% confidence interval ( $p < .05$ ).

In the body of literature, in spite of no consensus in terms of absolute value correlation coefficient interpretation. Correlation coefficient can be defined as absolute value between

0.70 and 1.00, high; between 0.70 and 0.30, medium; between 0.30 and 0.00 is low relationship (Büyüköztürk, 2011: 32).

### **3.2. Participants**

The study was conducted during the 2015–2016 academic year at KTO Karatay University Preparatory School in Konya, Türkiye. The participants consisted of 61 Turkish EFL students enrolled in intermediate and upper-intermediate level English courses. The participants were randomly assigned to two groups: an experimental group and a control group. The experimental group consisted of 31 students, whereas the control group included 30 students. The instructional treatment lasted six weeks. During this period, students in the experimental group received vocabulary instruction based on association strategies, while the control group continued with traditional vocabulary learning practices.

At the end of each instructional activity, students in the experimental group were asked to provide written reflections and feedback regarding the activities. The reflections were written either in Turkish or English.

### **3.3. Data Collection Instrument**

The instruments used in this study included a vocabulary learning strategies questionnaire, pre-tests, post-tests, and a six-week instructional treatment process. The questionnaire was adapted from Fan's (2003) vocabulary learning strategies questionnaire and consisted of sixty items designed to identify students' vocabulary learning strategy preferences.

The achievement tests included multiple-choice questions, matching activities, synonym and antonym tasks, fill-in-the-blank items, and vocabulary-based comprehension questions. The tests were developed in accordance with Bloom's Taxonomy in order to measure students' vocabulary achievement at different cognitive levels.

To ensure content validity, the achievement test was reviewed by four experts in the field prior to implementation.

### **3.4. Data Collection Procedures**

The data collection process was conducted during the spring semester of the 2015–2016 academic year. Initially, the vocabulary learning strategies questionnaire was administered to 61 preparatory school students in order to identify the strategies they used while learning vocabulary.

Following the administration of the questionnaire, both the experimental and control groups took a vocabulary pre-test. Subsequently, a six-week instructional treatment was implemented. During the treatment period, the experimental group received vocabulary

instruction through association strategies and communicative classroom activities, whereas the control group continued receiving conventional vocabulary instruction.

At the end of the treatment period, a post-test was administered to both groups in order to measure changes in vocabulary achievement. The collected data were entered into SPSS and analyzed statistically.

#### 4. FINDINGS

Descriptive analysis of student groups who took part in the research is given in Table 1.

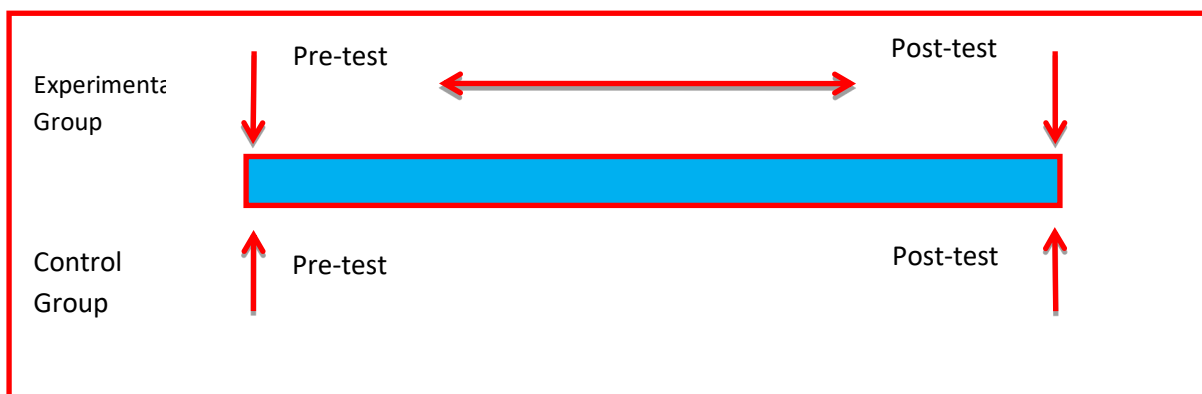
**Table 1. Distribution of participants according to groups**

Groups	N	%
Control	30	49.2
Experimental	31	50.8
Total	61	100.0

As shown in table 1, 31 students (50.8%) constitute experimental group; 30 students (49.2%) constitute control group.

In the research, descriptive results of the student groups are given in table 2 according to types of high school where students graduated.

In the research process, the groups of an academic achievement test, administered to students and given comparison of schemes, are shown in figure 1.



**Figure 1. Implementation and comparison of academic achievement test**

Figure 1 shows that an academic achievement test is conducted on both the experimental and control groups as a pre-test and post-test. The students' replies are analysed and contrasted, and the research questions are answered based on these findings.

- Comparison of Intergroup Pre-test
- Comparison unrelated samples results of an academic achievement test implemented pre-implementation to experimental and control group, are shown in Table 2.

**Table 2. Pre test comparison analysis results of intergroup (experimental-control group)**

Groups	N	$\bar{X}$	Ss	Sd	T	p	
Pre-test	Experimental	31	46.4516	10.04934	59	.503	.617
	Control	30	45.1667	9.90327			

\*p<0.05

In the pre-test, the mean score for the experimental group was 46.4516 and for the control group was 45.1667. These scores were obtained before conducting any study on the experimental and control groups. The significance level, denoted as \*p<, was not specified. The results of the independent samples t-test indicated that there was no statistically significant difference between the experimental and control groups in terms of pre-test scores ( $p > .05$ ). This finding demonstrates that the two groups were equivalent prior to the instructional treatment.

According to the statistical tests conducted on the findings of unrelated samples, both groups in Table 2 are shown to be equivalent in terms of pre-implementation. The T-test, specifically the between-groups T-test, has been developed as a statistical method to compare groups that are equivalent in nature.

### Comparison Experimental Group Pre-test and Post-test (Paired T-test)

The findings of the implementation, which involved conducting a paired samples t-test to compare the pre-test and post-test results of the experimental group who were able to observe their academic improvement, are presented in Table 3.

**Table 3. Comparison of pre-test and post-test analysis results of academic achievement test in experimental group.**

Test	N	$\bar{X}$	Ss	Sd	T	p	
Experimental Group	Pre	31	46.45	10.04934	30	25.736	.000
	test		16				

Post test	31	86.12 90	9.56292
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\*p<0.05

Statistically significant differences were discovered between the pre-test and post-test scores of the experimental group (pre-test mean = 46.4516, post-test mean = 86.1290) with a significance level of  $p < .05$ . The p-value is less than 0.05. Weekly adoption in the experimental group led to a noticeable improvement in their academic achievement.

### Control Group Pre-test and Post-test Results (Paired T-test)

The findings of the implementation of a paired sample t-test, which was conducted to compare the pre-test and post-test results of the control group who were able to observe their academic development, are displayed in Table 4.

**Table 4. Comparison (paired t-test) of pre-test and post-test analysis results of academic achievement test in the control group.**

	Test	N	$\bar{X}$	Ss	S d	T	p
Contr ol Grou p	Pre test	30	45.1667	9.90327	29	24.980	.000
	Post test	30	67.8000	12.24576			

\*p<0.05

Statistically significant differences were seen between the pre-test and post-test scores of the control group (pre-test mean = 45.1667; post-test mean = 67.8000) at a significance level of  $p < 0.05$ . The p-value is less than 0.05. Table 4 indicates that the control group demonstrated improvement in academic achievement test scores following the instructional process.

### Comparison of Final Test (Unrelated Samples t-test) of Intergroup (Experimental and Control Group)

The findings of the comparison between the Experimental group, which used the Association technique while acquiring vocabulary, and the Control group, which did not use the Association technique, are presented in Table 5 in terms of "Academic Achievement" points.

**Table 5. Comparison results of post-test in intergroup (control and experimental groups)**

Groups	N	$\bar{X}$	S	Sd	t	P
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Post test	Experimental	31	86.1290	9.56292	59	6.528	.000
	Control	30	67.8000	12.24576			

\*p<0.05

After completing the implementation, the last tests were conducted on both the experimental and control groups. The significance level was set at \*p<.05, indicating that any difference between the groups with a p-value less than .05 is considered meaningful. The most recent experiment found that the post-test scores of the control group were judged to be 67.8000, while the post-test scores of the experimental group were found to be 86.1290. The data in Table 5 indicates that the experimental group has a greater advantage, making the result more significant.

Furthermore, the impact of association with a designed learning environment is assessed by examining the  $\eta^2$  value to identify the extent of its influence on academic accomplishment. The calculated value for the influence quantity is  $\eta^2=.49$ . When considering the influence quantity value, it can be stated that the association with the designed setting has a "significant impact" on academic achievement test scores.

### Qualitative Data

This study incorporates data obtained from the pre-test and post-test outcomes of language acquisition techniques. As previously stated, poll items are measured on a Likert scale, with values ranging from 1 to 5. There were two questions; “frequency of use” and the other question is “usefulness of the strategy”. Statements of frequency of use items are 1= never, 2= Seldom, 3= Sometimes, 4= Often, 5= Very often. Statements of usefulness items are 1= Not useful, 2= Not sure, 3= Quite useful 4= Very useful, 5= Extremely Useful.

**Table 7. Categories of vocabulary learning strategies**

Categories	Number of Items	Item No
Management	6	-6
Sources	9	-15
Guessing	12	6-27
Dictionary	11	:8-38
Recording	8	:9-46
Repetition	5	7-51

Analysis	3	2-54
+ Association	7	5-61

**Note: + = strategy that was focused on during training**

## 5. DISCUSSION AND CONCLUSION

The findings of the study revealed that association strategies had a positive effect on students' vocabulary achievement. The experimental group demonstrated significantly higher post-test scores compared to the control group, suggesting that strategy-based vocabulary instruction can facilitate vocabulary retention and language learning.

One possible explanation for this result is that association strategies encourage learners to establish meaningful connections between newly learned words and existing knowledge. This process may enhance memory retention and promote deeper cognitive processing. The findings of the present study are consistent with previous research emphasizing the effectiveness of vocabulary learning strategies in EFL contexts (Schmitt, 1997; Fan, 2003).

Furthermore, the use of communicative and interactive activities during the treatment process may have increased students' motivation and classroom engagement. Activities such as games, dialogues, categorization, and collaborative tasks appeared to create a more supportive and enjoyable learning environment for vocabulary development.

### 5.1. Limitations of the Study

The research revealed multiple constraints inherent to the study. The study was conducted at KTO Karatay University, namely in the Preparatory School of Foreign Languages. The study involved individuals who were preparatory students enrolled in an intensive English course at the time of data collection. The conclusions of this study are restricted to the data obtained from 61 students; so, the outcomes cannot be extrapolated to other student populations in alternative educational environments. The results are applicable solely to the students who are directly associated with the study.

One additional constraint of the study was that it was undertaken for a duration of only 6 weeks. Furthermore, every single student was engaged in academic pursuits at KTO Karatay University, located in Konya. Another limitation pertains to the specific attributes of the Vocabulary Levels Test (VLT). It assesses one's vocabulary competency based on the quantity of target vocabularies. The findings regarding the correlation between VLS and vocabulary proficiency are only applicable to the specific target vocabulary competency.

### 5.2. Implication of the Study

The study was conducted at KTO Karatay University with a sample size of only 61 students. The study might have been conducted with a larger sample size, including students from other institutions and universities. Additionally, this study was conducted with intermediate-level students. However, future research should explore conducting further investigations with different student populations.

Another recommendation pertains to the procedure. The study was conducted over a duration of 6 weeks. This study can be conducted for a minimum of two semesters to facilitate additional research. In addition, this study was exclusively conducted with students. However, future research could involve professors and administrative personnel from colleges and universities. Students should be instructed to build their own vocabulary notebooks and dedicate more time to studying the words.

**Note:** This article is derived from the master's thesis titled A STUDY ON VOCABULARY LEARNING STRATEGIES OF TURKISH EFL LEARNERS AT KTO KARATAY UNIVERSITY PREPARATORY SCHOOL, which was accepted by Necmettin Erbakan University Institute of Educational Sciences in 2017.

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