# The Effects of the Use of Quizlet on Vocabulary Learning Motivation 

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#### Abstract

While motivating learners for vocabulary learning is a problematic issue in the foreign language context, vocabulary learning via online learning tools has been taking an intriguing place in English language learning as a foreign language. However, how the use of online tools affects vocabulary learning motivation remains an unanswered question. This study aims to examine the effects of Quizlet, one of the online tools, on vocabulary learning motivation in the English as a foreign language (EFL) learning context. The sample group of the study consisted of 45 Turkish EFL learners at a state university. The study is designed to be one-group experimental research. After administering the vocabulary learning motivation scale as a pre-test, the participants were instructed regarding vocabulary items from their Psychology course on Quizlet for a 5 -week-period. Then, the post-test was administered to the participants. The results indicated that the use of Quizlet does not have any influence on learners' inner motivation on vocabulary learning, while it creates an expectation for a short term reward from the teacher. It was also found that EFL learners have a high level of motivation to learn new vocabulary.


Keywords: English as a foreign language; vocabulary; motivation; Quizlet

## Introduction

Vocabulary learning constitutes a significant role and place in the EFL context due to several reasons. First, human being's language is based on vocabulary, whereas grammar provides the overall patterns (Pan \& Xu, 2011). Thus, vocabulary is an essential element of language to convey the message to the listener. Lack of knowledge in terms of grammar or syntax may distort communication; however, without having the necessary vocabulary knowledge, it is excessively hard for foreign language learners to communicate or express themselves (Sanosi, 2018). Second, vocabulary mastery promotes the other productive and receptive skills such as speaking, listening, writing and reading (Cahyono \& Widiati, 2008). In the foreign language learning context, lexical competence plays a crucial role in all language skills (Nation, 2001, cited as Alqahtani, 2015) Last, unlike other parts of a language like phonology or syntax, vocabulary does not have certain rules for the learners to follow while acquiring (Alqahtani, 2015). To conclude, learning vocabulary is essential in the EFL learning context while it is also viewed as one of the main problematic areas in the learning process.

One of the problems faced by EFL learners in the vocabulary learning process is the lack of motivation. While motivation is required for foreign language learners in the mentioned process, it reveals several problems that lower the levels of learners' motivation. These problems comprise selfefficacy, anxiety, and attitudes as noted by Tseng and Schmitt (2008). First, learners with low self-
efficacy are not aware of their full potentials and cannot overcome the obstacles they experience while learning. In the same way, in the vocabulary learning process, learners with low self-efficacy tend to give up easily when they think they cannot learn vocabulary items or use them properly in oral or written communication. Second, most of the learners try to memorize the vocabulary items in isolated ways like building vocabulary lists or taking small notes next to reading or listening passages. When the use of those vocabulary items in written or oral communication contexts is considered, they are dramatically not able to do that. When they are confused and cannot recognize which word to prefer or when to use a special word, they refer it to task difficulty (Williams \& Burden, 1997). Learners who experienced the inadequacy of their vocabulary learning strategy simply show no more effort to learn new vocabulary items. Last, learners' negative attitudes towards the language can also result in a lack of motivation in learning the vocabulary. Considering these factors affecting the motivation, Quizlet, a user-designed vocabulary-learning platform, can be an applicable solution to motivate EFL learners.

Quizlet may strengthen the motivation of EFL learners due to several reasons. First, there are different modules in Quizlet consisting of flashcards, games, collaborative activities and tests. These modules include different activities like matching, multiple-choice questions, writing, voice recording, and listening. These contain different activities and help learners access the right vocabulary learning tools for their insufficiency in vocabulary. In this way, their self-efficacy can become higher since they realize they have more potential in the target language. Second, Quizlet provides learners to acquire the vocabulary by completing different tasks while gamifying the whole process (Sanosi, 2018). This feature of the application may lower the learners' affective filters and consequently their anxiety levels and increase motivation levels. Last, when learners fulfill their basic mastery in language, vocabulary learning happens more coincidentally by reading and using digital media (Deng \& Trainin, 2015). In this sense, Quizlet comprises the intentional learning environment with instant feedback, autonomy, and fun which raises the basic proficiency in the target language. Therefore, learners can move one step further to engage more in the target language in their daily lives. In other words, the more learners are engaged, the more they can find out their interests eagerly in the target language by learning at their own pace and allowing more self-control on their learning process (Anjaniputra \& Salsabila, 2018). To conclude, Quizlet may be influential in increasing learners' levels of motivation levels; however, research lacks the relationship between the use of Quizlet and vocabulary learning motivation, as given below. However, before presenting a synthesis of research, a theoretical background is provided.

## Theoretical Background

Several terms and concepts need to be clarified. First, vocabulary is defined as the most sizeable and unmanageable part in the learning of any language, a foreign or a mother tongue, because of a huge amount of different meanings in the EFL context (Oxford, 1990, cited as Alqahtani, 2015). Second, motivation can be defined as the combination of both the attempt and the desire to the aim of language learning and positive attitudes towards language learning (Gardner, 1985, cited by Alizadeh, 2016). Deci and Ryan (2000) basically categorize motivation into two; intrinsic motivation an individual's own desire to do something - and extrinsic motivation - outside factors affecting individuals' desire to do something -. Last, Quizlet is a free website that provides learning tools for students, including game modes. It is a user-guided online program, accessible on computers and mobiles, to help learners practice and master the learning content individually or collaboratively by offering different learning activities and games.

Several hypotheses and theories also need to be discussed regarding the use of Quizlet in vocabulary learning and motivation. First, in terms of vocabulary learning, some strategies suggested by Nation
(2007) are language-focused learning, learning from meaning-focused input and output and fluency development. These strategies emphasize the benefits of contextual vocabulary learning. Another one is the Semantic Field Theory which claims that words are not isolated from each other and so they are assumed to be learned by the associated other words related to the target one (Pan \& Xu, 2011). Second, contextualized vocabulary learning is now practiced online benefiting from advanced technology and the new trending approach in terms of computer-assisted language learning (Sanosi, 2018). Within this perspective, Quizlet is one of the most used tools. Last, the Self Determination Theory illustrates a framework of human intrinsic and extrinsic motivation and personality (Deci \& Ryan, 2000). Intrinsic motivation defines the self-motivated behaviors related to the activities that individuals enjoy doing. Extrinsic motivation is related to externally motivated states such as good grades, peer pressure, and high scores on tests. It is noted that activities including creativity, persistence and performance and requiring individual autonomy, competence and relatedness foster the most willing and high-quality types of motivation (Deci \& Ryan, 2000).

## Literature Review

Research shows that the use of Quizlet has an impact on the learners' vocabulary learning motivation. As an example, given that studies had mainly focused on the link between the use of Quizlet and the learners' vocabulary learning motivation, Anjaniputra and Salsabila (2018) aimed to show the application of the Quizlet in vocabulary learning at the tertiary level and to reveal the learners' responses towards that by implementing classroom action research. The data of this descriptive study were collected by classroom observation, tests and interviews from 30 students who form a class of the fourth year students taking the Complex Vocabulary Subject. They concluded that Quizlet fostered learners' engagement and persistence in vocabulary learning in addition to that they enjoyed and found it beneficial. In another study, Baptist (2018) tried to find out whether 11thgrade students in an inclusion class using Quizlet for vocabulary mastery outperformed students taught with a more traditional approach to vocabulary quizzes. In other words, they aimed to find whether the results differed for students with disabilities compared to typically developing students and whether students enjoyed and benefited from completing the Quizlet treatment for mastering vocabulary. The study designed as two groups experiencing different treatments, Group 1 having index cards and Group 2 having Quizlet, to master vocabulary and switching the treatments after almost 9 weeks. As a result, they stated that the data collected from $60 \%$ of the students ( 23 out of 38 ) and also $70 \%$ of the students with disabilities showed an improvement in their mean vocabulary quiz score. In addition, the responses of many students revealed a clear joy and benefit from the Quizlet. Another study by Dizon (2016) aimed to examine the efficacy of using Quizlet to improve vocabulary learning. The participants consisted of nine Japanese university EFL students who studied Coxhead's (2001) academic vocabulary list via Quizlet over the course of 10 weeks. It was found that students also had positive perceptions of Quizlet to study vocabulary and thought it was useful and practical. In another study, Davie and Hilber (2015) examined the relationship between the attitudes of engineering students and Quizlet to learn vocabulary items. The initial data were collected by a questionnaire for 68 students and later 10 students, five males, and five females were interviewed at the end of the semester. They concluded that even if there was not any significant difference in their vocabulary scores, students' interviews emphasized the efficacy, the convenience and the fun of Quizlet.

Research indicates that the use of Quizlet influences learners' vocabulary acquisition. As an example, Sanosi (2018) aimed to find the relationship between the effect of Quizlet and vocabulary acquisition. The study was carried out by pretests and posttests undergone by two groups including 42 low-level EFL participants. The findings presented that within a month after the implementation of Quizlet, the experimental group showed a remarkable development in post-tests. In another
study, Özer and Koçoğlu (2017) investigated the effects of Quizlet and vocabulary notebooks on vocabulary acquisition. The control and the treatment groups consisted of 89 students in four beginner EFL classes which were divided into two, the ones using Quizlet and the ones using the paper-based vocabulary notebooks. These groups later examined by pre-tests, post-test and delayed unannounced posttests. The findings of the study showed an improvement between pre-tests/posttests and pre-tests / delayed posttests among the control, Quizlet and vocabulary notebook groups even though there was not a significant difference. Finally, Barr (2016) compared the success of digital flashcard users, Quizlet, and non-users in the same class. The study included fill in the blank tests undergone by 32 low-level EFL first-year students in English as a Lingua Franca program. He concluded that the students who got prepared for the tests on Quizlet got higher scores on average.

## Overview of the Study

As underlined previously, vocabulary learning plays an important role in EFL classes because of a couple of reasons like conveying a message and supporting productive and receptive skills. However, one of the problems in the vocabulary learning process is that learners may experience a lack of motivation. However, while research shows Quizlet has a positive influence on the learners' vocabulary acquisition and learning, there is a lack of data on how the use of Quizlet affects the learners' motivation for vocabulary learning. In addition, in the Turkish EFL context, there is no study on the relationship between the use of Quizlet and vocabulary learning motivation. With these concerns in mind, the current study aims to investigate the effect of the use of Quizlet on the vocabulary learning motivation in a Turkish EFL context. Based on this aim, the study asks one research question:

- Does the use of Quizlet have any influence on vocabulary learning motivation in EFL classes?


## Method

## Research design

The study is characterized as analytic-deductive since it limits the focus to one specific factor affecting one aspect of the whole language learning process. In this study, the aim is to demonstrate the possible relationship between Quizlet as a factor that is considered to have an impact on vocabulary learning motivation in the Turkish EFL context. It employs a one-group experimental research design with pre- and post-tests because it targets to control subordinate variables that may have an impact on the homogeneity of subjects (Seliger \& Shohamy, 1989).

## Participants

The study was conducted to the sophomore students taking the English for Psychology II course in the Psychology Department of a state university in Turkey. The sample group consisted of 45 students. The gender distribution of the participants was $\% 73$ female ( 33 out of 45 ) and $\% 27$ male ( 12 out of 45 ). The mean age of the participants was 20.0 ranging from the 19 to 22 . The students' English proficiency levels are heterogeneous from elementary (A2) to advanced (C1). The levels were specified according to the Common European Framework of Reference for Languages (CEFR) standards taken from TrackTest English (2012). The time spent on social networking sites was 2-5 hours ( $57.8 \%$ ), 1-2 hours ( $28.9 \%$ ), $5-8$ hours ( $6.7 \%$ ), and less than an hour in a day ( $6.7 \%$ ). Moreover, they studied English 0-1 hour (64.4\%), 1-3 hours (13.3\%), 3-5 hours (13.3\%), while 8.9\% did not study during the day.

## Tools

The data collection tools were a background questionnaire and the motivation scale. The background questionnaire was designed to collect data about students' age, gender, English level, and the time spent daily on studying and on social networks. The second tool was the Vocabulary Learning Motivation Scale (VLMS) developed by Ersoy and Boyacı (2018). The scale included 24 items related to the motivational factors affecting their vocabulary learning habits. The questionnaire was Likerttype assessed on a scale one to five (strongly disagree $=1$, disagree $=2$, neutral $=3$, agree $=4$, strongly agree =5).

## Procedure

A three-step procedure was followed in this study: (1) administration of the pre questionnaire, (2) practicing the vocabulary items uploaded to Quizlet, (3) re-administration of the questionnaire. The administration of the pre questionnaire and the instruction on how to use Quizlet were actualized in the second week of the Spring semester of 2019. After the pre questionnaire was administered, the students were asked to practice the vocabulary items taken from the topics covered in the lesson and uploaded to Quizlet every week. The process went on for five weeks in the same way. Later, the same questionnaire was re-administered to the students as the post questionnaire in the eighth week of the Spring semester of 2019. Table 1 shows the weekly topics covered and the expected process the students followed on Quizlet.

Table 1. The content of the instruction

| Weeks | Topic | Content | Process |
| :--- | :--- | :--- | :--- |
| Week 1 | Memory | Items related to sensory, short <br> term and long term memories. | Learning with matching pairs, writing, <br> spelling, and flashcards |
|  | Testing yourself <br> Practicing more with games |  |  |
| Week 2 | Conditioning | Items related to classical and <br> operant conditioning and social <br> learning theory | Learning with matching pairs, writing, <br> spelling, and flashcards <br> Week 3 |
|  | Multiple <br> Intelligence yourself |  |  |

After the data collection process, the data were analyzed via SPSS. Table 2 presents the reliability coefficients and the percentages of the variance for pre- and post-administration. First, the reliability
coefficient was calculated and found within the confidence interval of Cronbach's Alpha, as seen in Table2. Second, the variance of $\%$ was found to be $\% 76.60$ for re-administration and $\% 75.09$ for postadministration. Then, the descriptives including frequencies, mean scores, and standard deviations were presented. Finally, the data collected from were compared by using paired-samples $t$-test to see whether the Quizlet effect on vocabulary learning motivation.

Table 2. Reliability coefficients and percentage of variance for the VLMS

| Tests | Reliability coefficients <br> (Cronbach's Alpha) | \% of the <br> Variance |
| :---: | :---: | :---: |
| Pre-test | 0.88 | 76.60 |
| Post-test | 0.88 | 75.09 |

## Results

## The Vocabulary Learning Motivation

According to the values shown in Appendix 1, the participants show a high level of motivation in terms of 18 items. For instance, they believed to be more successful when they learned more vocabulary items ( $\bar{x}=4.33$ ). They also thought the vocabulary teaching tools triggered their desire to learn vocabulary ( $\bar{x}=3.75$ ). They waited for vocabulary learning activities ( $\bar{x}=2.91$ ) and showed an effort to learn more ( $\bar{x}=3.51$ ). In addition, they stated that vocabulary learning helped to learn new things ( $\bar{x}=4.20$ ). They learned vocabulary even if they were difficult to learn ( $\bar{x}=3.84$ ) and they searched for the meanings of the vocabulary all the time ( $\bar{x}=3.60$ ). Moreover, they said that they needed to be encouraged to learn new vocabulary ( $\bar{x}=3.24$ ) and the process of vocabulary learning had to be enjoyable ( $\bar{x}=4.20$ ). They tried their best to do vocabulary learning activities ( $\bar{x}=3.40$ ) and believed that vocabulary learning made them more successful ( $\bar{x}=4.40$ ). Furthermore, they asserted that vocabulary learning would be beneficial for them ( $\bar{x}=4.40$ ) and they needed to learn more vocabulary to express themselves better ( $\bar{x}=4.42$ ). In addition, they wanted to attend the class activities to learn new vocabulary ( $\bar{x}=3.31$ ) and their classmates' eagerness affected their motivation positively to learn new vocabulary ( $\bar{x}=3.75$ ). Finally, they stated that they waited for vocabulary learning impatiently ( $\bar{x}=3.20$ ), never gave up learning ( $\bar{x}=2.93$ ) and wanted to learn more vocabulary when they learned new ones ( $\bar{x}=3.95$ ).

On the other hand, regarding six items in the scale, no effect on the level of the participants' motivation was noted. For instance, they did not learn vocabulary to be emulated by their classmates ( $\bar{x}=2.17$ ) or to be praised by the teacher ( $\bar{x}=2.20$ ). They also did not compete with their classmates to be the one who learned the most ( $\bar{x}=2.40$ ) or the first ( $\bar{x}=2.11$ ). Moreover, they did not want to be rewarded ( $\bar{x}=2.13$ ) or to be favored by their teacher ( $\bar{x}=2.08$ ) when they learned a new vocabulary item.

## Quizlet on Vocabulary Learning Motivation

The values in Table 3 indicate the use of Quizlet is significantly correlated with only one item in the scale. In other words, among 24 pairs, only the pair number 12 was found to be statistically significant ( $p=.01$ ). In the pre-test, participants did not want to be rewarded when they learned new vocabulary items. However, after the application of Quizlet during the instruction process, the participants liked to be rewarded when they learned new vocabulary.

Table 3. Quizlet effect on vocabulary earning motivation (Paired samples t-test)

| Paired Items | Paired Differences |  |  |  |  | t | df | Sig. (2- <br> tailed) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mean | Std. Deviation | Std. <br> Error <br> Mean | 95\% Confidence Interval of the Difference |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  | Lower | Upper |  |  |  |
| I would like to be rewarded when I learn a new vocabulary. | -0.58 | 1.36 | 0.20 | -0.99 | -0.17 | -2.86 | 44 | 0.01 |

## Conclusion and Discussion

Two main conclusions from the study that aimed to investigate the effects of the use of Quizlet on vocabulary learning motivation among EFL learners. First, EFL learners are willing to learn new vocabulary and show more effort in class to learn more vocabulary items. In other words, their internal motivation to learn vocabulary is at a high level and they believe they can be more successful when they learn more vocabulary items. On the other hand, they have a low level of motivation due to external reasons such as rewarding, teachers' favors or competing with their peers, and do not focus on these external triggers much when their real concern is vocabulary learning. The second conclusion is that the use of Quizlet does not have an effect on vocabulary learning motivation among EFL learners except expecting a reward after the completion. This could be a reward from the teacher or a good grade they could get in a test after they study on Quizlet. Thus, it can be noted that a short term study on Quizlet brings out external motivation. In other words, their overall internal reasons for vocabulary learning stay stable.

Compared to findings in previous studies, it can be seen that studies mostly focus on either the scores gathered after the application of Quizlet or the acquisition of the vocabulary items, while this study concentrates on Quizlet effect on vocabulary learning and concludes that it has no considerable effects. For example, Anjaniputra and Salsabila (2018) find a positive impact of Quizlet as it improved engagement, persistence, and joy, while results in the current study do not show any improvement regarding motivation. Sanosi (2018) also notes that vocabulary acquisition via Quizlet shows good progress among learners. However, similar to the findings in this study, Davie and Hilber (2015) find no significant effect of Quizlet on vocabulary scores. To this end, it can be stated that conclusions regarding the effects of the use of Quizlet are positive in terms of engagement, persistence, and joy, while its utilization has no influence on motivation and achievement.

Some practical recommendations can be noted regarding the use of Quizlet. First, as it is evident that EFL learners already feel motivated in terms of learning vocabulary, teachers can mainly prefer traditional teaching activities in the teaching process. Within this scope, it can be recommended that EFL teachers should integrate Quizlet into their teaching activities due to practicality and userfriendliness. Second, Quizlet can be preferred to increase the low level of motivation among learners in terms of rewarding, teachers' favors or competing with their peers, as it precedes competition among students in the classroom settings. Third, as students are mostly digital-natives, EFL teachers should allow learners to create freely and easily their own learning environment for vocabulary learning. In other words, they should create some short challenges or games with small rewards to compensate these expectations not only for vocabulary learning but also for the use of digital applications.

Some limitations of this research include that the participants were limited to 45 EFL learners studying Psychology at a public university. The scope of the study is restricted to a one-group
experimental research design that uses a background questionnaire and the pre and postadministrations of the Vocabulary Learning Motivation Scale developed by Ersoy and Boyacı (2018). Last, the study is confined to a 5 -week period for the instruction process. In light of the findings, some recommendations for further studies can be listed. First, it can be recommended that experimental research designs including two or more groups should be preferred. Second, the instruction process should be extended. In order to see the relationship between the use of Quizlet in vocabulary learning motivation and demographic and extraneous variables, descriptive and correlational should be performed. In addition, for a deeper understanding of learners' perceptions, expectations, and needs, qualitative studies should be warranted. Finally, the effects of various online tools on basic language skills and knowledge areas need to be investigated.

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Appendix 1. Descriptives for pre and post-test comparison of the items in the VLMS

| Items ( $\mathrm{N}=45$ ) | Tests | N | Mean | $\begin{aligned} & \dot{\square} \\ & \text { ㅎㄴ } \\ & \dot{\sim} \\ & \dot{\sim} \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| I would like to learn more vocabulary because I want my classmates to emulate me. | Pre-test | 45 | 2.18 | 0.18 | 1.21 |
|  | Post-test | 45 | 2.04 | 0.18 | 1.21 |
| I believe that the more I learn vocabulary, the more I will be successful. | Pre-test | 45 | 4.33 | 0.15 | 1.02 |
|  | Post-test | 45 | 4.11 | 0.18 | 1.19 |
| I would like to learn more vocabulary to be praised by my teacher. | Pre-test | 45 | 2.20 | 0.15 | 0.99 |
|  | Post-test | 45 | 2.36 | 0.18 | 1.21 |
| The tools that are used to teach me vocabulary improve my desire to learn vocabulary. | Pre-test | 45 | 3.76 | 0.18 | 1.21 |
|  | Post-test | 45 | 3.98 | 0.17 | 1.14 |
| I would like to learn vocabulary the most among my classmates. | Pre-test | 45 | 2.40 | 0.18 | 1.19 |
|  | Post-test | 45 | 2.42 | 0.17 | 1.16 |
| I look forward to vocabulary learning activities. | Pre-test | 45 | 2.91 | 0.13 | 0.85 |
|  | Post-test | 45 | 2.93 | 0.17 | 1.16 |
| I show effort to learn more vocabulary. | Pre-test | 45 | 3.51 | 0.15 | 0.99 |
|  | Post-test | 45 | 3.33 | 0.15 | 1.02 |
| I would like to learn vocabulary because it helps me learn new things. | Pre-test | 45 | 4.20 | 0.14 | 0.97 |
|  | Post-test | 45 | 4.09 | 0.15 | 1.00 |
| I would like to learn some vocabulary even if they are difficult to learn. | Pre-test | 45 | 3.84 | 0.16 | 1.04 |
|  | Post-test | 45 | 3.84 | 0.17 | 1.11 |
| I always would like to search for the meanings of the vocabulary. | Pre-test | 45 | 3.60 | 0.16 | 1.07 |
|  | Post-test | 45 | 3.36 | 0.19 | 1.26 |
| I would like to be couraged to learn the vocabulary that I don't know their meanings. | Pre-test | 45 | 3.24 | 0.20 | 1.35 |
|  | Post-test | 45 | 3.49 | 0.19 | 1.29 |
| I would like to be rewarded when I learn new vocabulary. | Pre-test | 45 | 2.13 | 0.16 | 1.06 |
|  | Post-test | 45 | 2.71 | 0.18 | 1.18 |


| Items ( $\mathrm{N}=45$ ) | Tests | N | Mean | $\begin{aligned} & \dot{\vdots} \\ & \text { ㅎㄴ } \\ & \dot{\sim} \\ & \text { ì } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| I would like to learn a new vocabulary first. | Pre-test | 45 | 2.11 | 0.17 | 1.17 |
|  | Post-test | 45 | 2.13 | 0.18 | 1.20 |
| I would like to win my teacher's favor by learning vocabulary. | Pre-test | 45 | 2.09 | 0.16 | 1.04 |
|  | Post-test | 45 | 2.11 | 0.17 | 1.11 |
| I try to do vocabulary learning activities in the best way. | Pre-test | 45 | 3.40 | 0.17 | 1.12 |
|  | Post-test | 45 | 3.47 | 0.14 | 0.97 |
| I would like vocabulary learning to become more enjoyable for me. | Pre-test | 45 | 4.20 | 0.16 | 1.06 |
|  | Post-test | 45 | 4.09 | 0.16 | 1.08 |
| Learning new vocabulary makes me more successful. | Pre-test | 45 | 4.40 | 0.15 | 1.03 |
|  | Post-test | 45 | 3.98 | 0.16 | 1.06 |
| I think that vocabulary learning will be beneficial to me. | Pre-test | 45 | 4.40 | 0.14 | 0.96 |
|  | Post-test | 45 | 4.16 | 0.18 | 1.19 |
| My classmates' eagerness to learn vocabulary motivates me. | Pre-test | 45 | 3.76 | 0.18 | 1.19 |
|  | Post-test | 45 | 3.53 | 0.20 | 1.32 |
| I would like to learn more vocabulary when I learn new vocabulary. | Pre-test | 45 | 3.96 | 0.15 | 0.98 |
|  | Post-test | 45 | 3.73 | 0.17 | 1.12 |
| I wait for learning new vocabulary impatiently. | Pre-test | 45 | 3.20 | 0.13 | 0.87 |
|  | Post-test | 45 | 3.24 | 0.15 | 0.98 |
| I never give up learning new vocabulary. | Pre-test | 45 | 2.93 | 0.16 | 1.05 |
|  | Post-test | 45 | 3.11 | 0.15 | 1.01 |
| I believe that I need to learn more vocabulary to explain myself better. | Pre-test | 45 | 4.42 | 0.15 | 1.01 |
|  | Post-test | 45 | 4.24 | 0.18 | 1.19 |
| I would like to attend the activities in class to learn more vocabulary. | Pre-test | 45 | 3.31 | 0.16 | 1.08 |
|  | Post-test | 45 | 3.07 | 0.18 | 1.19 |

