

# The effectiveness of four vocabulary games in improving students' English vocabulary retention

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## ABSTRACT

Vocabulary is the most crucial part of language learning. It provides the basis for the four language skills: reading, writing, listening, and speaking. However, most EFL students, especially in Indonesia, struggle to learn English effectively, due to their limited vocabulary knowledge. This research aimed at finding out whether there is a significant improvement on students' English vocabulary retention at SMPQTA An-Nur after the implementation of four vocabulary games. This research employed one-group pretest-posttest design, utilizing vocabulary translation test to obtain the data. Saturated sampling was used for this research due to the limited class and number of the seventh-grade students. The mean scores on both the pre-test and post-test were analyzed using the Paired-Sample T-Test with a significance level of 5% (0.05). The result shows that there is an improvement on students' vocabulary translation test scores after the implementation of four vocabulary games by comparing students' pre-test and post-test scores, which means that there is an increase in students vocabulary retention. With the help of SPSS 25 program, a significance (2-tailed) value of 0.000 was obtained. The significance (2-tailed) value was higher than the significance level ( $0.000 < 0.05$ ) and t-value is higher than t-table ( $15.920 > 2.064$ ); there is a significant positive difference. Therefore, the four vocabulary games are effective in improving students' vocabulary retention.

**Keywords:** *English vocabulary, vocabulary retention, vocabulary games*

## I. INTRODUCTION

Vocabulary is the core elements of a language; it provides much of the basis of how language learners read, write, listen, and speak (Richards & Renandya, 2002). An adequate amount of vocabulary is required in order to communicate through the learned language. Vocabulary is, in fact, as important, if not more important than the grammar of the language itself, because even if the learners are proficient in the grammar aspects of a language, they will not be able to express themselves effectively without a sufficient amount of vocabulary knowledge of the language (Min, 2013).

When it comes to English vocabulary learning, Harmer (2001) states that memorizing list of words are the most traditional method of teaching vocabulary. This so-called traditional method is the commonly applied method by teachers when they are teaching vocabulary in the classroom (Nation, 2001). However, a study by Huyen & Nga (2003) in Vietnamese schools shows that the result of this widespread use of traditional method is that students only associate vocabulary learning with memorizing a list of words given by the teacher. It causes them to think that

learning vocabulary is a boring process. Students are then discouraged to learn vocabulary, and they will blame their memorizing ability when they fail to retain the new words.

To overcome this problem, teachers have to change the students' mindset regarding vocabulary learning. Students have to understand that there are a lot of engaging ways to learn vocabulary. It is recommended that teachers introduce new methods of teaching vocabulary, especially ones that encourage students' participation as students' participation in the learning process is required to improve their vocabulary retention (Stavy et al, 2019).

One of the ways to encourage students' participation and motivation towards the learning process is the involvement of vocabulary games. With the use of vocabulary games, students will have an opportunity to participate actively through fun but also educational activities. Since games are focused more on actions rather than explanations, they will attract attention and maintain motivation during the process (Schifter, 2013). Furthermore, Crookal (1990) states that games help to improve students' confidence in EFL classrooms by reducing their anxiety. This anxiety occurs mainly because students are afraid of making mistakes in the class, as it will result in them receiving teachers' punishment and criticism. Involving vocabulary games will boost students' confidence due to the fact that it will create a fun classroom environment, which will make learners feel less afraid of making mistakes.

Studies regarding the implementation of vocabulary games in vocabulary teaching show that vocabulary games help students improve their vocabulary retention. One of the studies is a recent study by Stavy et al (2019). The study aimed to investigate the impact of using language games on students' English vocabulary retention by implementing six language games in the learning process. The result of this research is that there is a significant increase in students' English vocabulary retention ability when they were taught using the language games as opposed to the traditional method.

Another recent study is a study by Shabanah et al (2019). The study attempted to investigate the effectiveness of vocabulary games on students' English vocabulary retention. The result of this study is that using vocabulary games improves students' achievement on vocabulary retention in the posttest. Furthermore, the result of the class observation shows that students are really engaged in the learning process due to the involvement of games.

The results of the studies provided above motivated the researcher to conduct similar research regarding the implementation of vocabulary games, with the objective of improving students' English vocabulary retention. This study intended to answer the following research question: Is there a significant difference on students' English vocabulary retention at SMPQTA An-Nur after the implementation of four vocabulary games?

## **II. METHOD**

This research is pre-experimental research employing one-group pretest-posttest design. The vocabulary teaching implementing four vocabulary games was conducted as a two-hour lesson two times a week for two weeks. The pre-test was administered a day before the treatment. In the treatment period, the students received the treatment using vocabulary games twice a week for one week. There were four vocabulary games that were used in this research, namely Charades, Pictionary, Word Scramble, and Apple Orange Banana. A week after receiving the treatment

involving four vocabulary games, the students were given the delayed post-test to find out about their vocabulary retention ability. The topic for the new words that were introduced and tested to the students is “Jobs and Occupations”.

The population of the study was all of the seventh-grade students of 2022/2023 academic year. Due to the fact that SMPQTA An-Nur at the time of this research only had one seventh-grade class with a relatively small number of students, the technique that was used for selecting the participant of this study was saturated sampling, which means that all 25 students of the seventh-grade class were picked to be the sample of this study.

The main instrument for obtaining the data is a vocabulary translation test. The data obtained by the vocabulary translation test in the pre-test and post-test were analyzed with the help of a program called The Statistical Package for the Social Sciences (SPSS, version 25.0). A descriptive statistic namely frequency will be applied to obtain the patterns of students’ vocabulary translation test scores in the pre-test and the post-test and to measure their achievements. Then, the data were translated into a chart to identify the findings of the study. Furthermore, A paired samples t-test was computed to determine whether there was any significant difference between the pre-test and the post-test. The data obtained was transferred into a table and based on this, the findings were specified.

### III. RESULTS AND DISCUSSIONS

#### Result

After the implementation of four vocabulary games and the collection of the data, the following results were found.

*Table 1. The Difference between the Pre-Test and Post-Test Score*

Pre-Test				Post-Test			
Interval Score	N	Percentage	Mean	Interval Score	N	Percentage	Mean
5-12	11	44%	19.60	20-31	3	12%	54.60
13-20	6	24%		32-43	5	20%	
21-28	2	8%		44-55	7	28%	
29-36	2	8%		56-67	2	8%	
37-44	1	4%		68-79	4	16%	
45-52	3	12%		80-91	4	16%	

Table 1 shows that the mean score of the pre-test was 19.60. Students’ achievement in the pre-test indicates that they had poor vocabulary knowledge, as the majority of them (44%) fell under the first score interval, with the lowest score achieved being 5 points. Also, the highest achieved score in the pre-test was 50 points, which is a relatively low score. However, after the implementation of four vocabulary games in the vocabulary teaching, it is shown that students’ score was improved in the delayed post-test. The mean score went from 19.60 to 54.60, which was a 35-point increase. The majority of students in the post-test (28%) also managed to occupy the third score interval. More students were also able to reach the fourth (16%) and fifth (16%) score interval. The lowest score and the highest score were also improved in the pre-test, with the

lowest score being 20 points and the highest score being 90 points. Suffice to say that the implementation of four vocabulary games help students to improve their vocabulary knowledge and their vocabulary retention ability.

Furthermore, Paired Sample T-Test was computed in the SPSS (ver. 25.0) program to determine whether there was a significant difference between said tests, with a level of confidence of 95% and a significance level of 0.05. It was to answer the research question and prove the following hypotheses:

$H_1$  = There is a significant difference on students' English vocabulary retention at SMPQTA An-Nur Gedong Tataan after the implementation of four vocabulary games.

$H_0$  = There is no significant difference on students' English vocabulary retention at SMPQTA An-Nur Gedong Tataan after the implementation of four vocabulary games.

The criteria of acceptance are as follows:

If  $t\text{-value} > t\text{-table}$  and  $\text{Sig. (2-tailed) value} < 0.05$ , then  $H_0$  is rejected and  $H_1$  is accepted.

If  $t\text{-value} < t\text{-table}$  and  $\text{Sig. (2-tailed) value} > 0.05$ , then  $H_0$  is accepted and  $H_1$  is rejected.

*Table 2. Paired Sample T-Test Result*

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error	95% Confidence Interval of the Difference				
					Mean	Deviation	Mean	Lower	Upper
Pair 1	Prettest - Posttest	-35.000	10.992	2.198	-39.537	-30.463	-15.920	24	.000

Table 2 proves that  $H_1$  is accepted while  $H_0$  is rejected. It is shown in the table that t-value is 15.920 and therefore higher than t-table (2.064). It is also shown that the Sig. (2-tailed) value is lower than the level of significance ( $0.000 < 0.05$ ). Therefore, a conclusion can be made, that is there is a significant positive difference between the pre-test and post-test after the implementation of four vocabulary games.

#### Discussion

Based on the results of this study, the researcher found that teaching vocabulary through chosen four vocabulary games provides a significant difference to the students' vocabulary achievement. The first results could be seen from the students' pre-test scores and the students' post-test scores. Based on the data provided, the mean score of the pre-test was 19.60 and the post-test mean score was 54.60; therefore, there is an increase of mean score by 35 points.

In addition to that, the researcher also tested the significance level of the pre-test and post-test using the paired t-test helped by the SPSS (version 25.0) program. In table 2, it is shown that the significance level of students' improvement is 0.000 which is lower than 0.05. Comparing the t-value with the t-table with a level of confidence of 95% also shows that t-value is higher than t-table ( $15.920 > 2.064$ ). Therefore, the hypothesis ( $H_1$ ) is accepted that there is a significant difference in students' (delayed) vocabulary achievement after the implementation of four vocabulary games. This proves that vocabulary games help students improve their vocabulary achievement significantly even after being delayed for the purpose of finding out the effect of

vocabulary games on students' vocabulary retention. This also proves that four vocabulary games are effective in improving students' vocabulary retention.

This finding supports the previous research findings by Taheri (2014), where he tried to investigate whether there is a significance difference between the results of the pre-test and the post-test after the implementation of vocabulary games. The result of his independent sample test is  $p=0.001<0.05$ , which proves that there is a significant difference between the pre-test and the post-test. Moreover, the result of this research is also in line with the findings of the research that was conducted by Stavy et al (2019). They found that there is a significance difference of the students' vocabulary scores after the implementation of six vocabulary games. The result of their paired sample t-test showed a significance value of 0.001, which is lower than 0.05. Therefore, there is a significant difference between students' pre-test and post-test scores and the hypothesis (H1) proposed in their research is therefore accepted.

#### IV. CONCLUSIONS AND SUGGESTIONS

The objective of this research is to investigate whether the four vocabulary games in this research are effective in improving students' vocabulary retention at SMPQTA. The researcher found that there is a positive difference in students' vocabulary achievement after the implementation of four vocabular games. There is a 35-point increase in the mean score between the pre-test and the posttest. There is also a significant difference based on the value of the sig. (2-tailed), which is  $0.000<0.05$  and that the t-value is higher than the t-table ( $15.920>2.064$ ).

Therefore, based on the fact that there is positive significant difference between the pre-test and post-test score, the researcher put forward a conclusion that the four vocabulary games are in fact effective in improving students' vocabulary retention. Furthermore, vocabulary is the most crucial component in language and is related to other skills so that further research could investigate the effect of vocabulary mastery on other skills, i.e., reading, listening, speaking, and writing. Teachers are suggested to provide material that is for teaching reference to teach foreign languages, specifically English, also to use media that are appropriate for students' needs and should be contextual so that the students become interested in the learning process and do not get bored.

It is recommended for future research to focus on more vocabulary knowledge aspects rather than focusing only on one aspect. It is also recommended to specify which game performs better at improving students' vocabulary retention and at improving a particular vocabulary knowledge aspect if there is a plan to use multiple vocabulary games. For future researchers who are willing to conduct the same research, it is encouraged to use the same variables in this study, but with different subject circumstances than usual. Future research could prepare carefully about the length of time that will be given during treatments because many unexpected things happen, and their time is limited for other activities. Also, researchers need to prepare materials and explain instructions in student worksheets bilingually. It is also recommended for future research to have a conducive learning environment by making sure that all students seriously invested in the vocabulary games being played.

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