

THE EFFECTIVENESS OF QUIZIZZ IN STUDENTS' VOCABULARY MASTERY OF ELEVENTH GRADE AT SMAN 1 GROGOL

Lutfiana Dwi Nur Fadhilah*¹, Nur Fitria Anggrisia²

Universitas Islam Negeri Maulana Malik Ibrahim Malang, Indonesia

Email: lutfiana487@gmail.com, riaanggrisia@uin-malang.ac.id

Abstract The objective of the study was to determine whether the use of Quizizz was effective or not for students' vocabulary mastery of eleventh grade at SMAN 1 Grogol. This study used quasi-experimental design. The subject of this study was XI Social 2 and XI Social 3 of SMAN 1 Grogol. The vocabulary learned is receptive and productive vocabulary in explanation text. The data was obtained by conducting a post-test. The results showed a difference in post-test results between the experimental and control groups. The average score of the experiment group was 59.44, while the control group was smaller at 47.48. The results obtained from the statistical test show that the significance value (Sig. 2-tailed) is 0.004, where the value obtained is <0.05. This indicates that H_a is accepted and H_0 is rejected. It can be concluded that Quizizz is effective in learning receptive and productive vocabulary mastery of explanation text in eleventh grade.

Keywords: *Effectiveness; Quizizz; Vocabulary*

A. INTRODUCTION

Vocabulary is one important language component in learning English before mastering the four English skills, namely speaking, writing, listening and reading. According to Tenorio (2020), vocabulary is essential for foreign language students, with a good vocabulary, students can communicate effectively in written or spoken form. Vocabulary is always related to word, this indicates that vocabulary is used to understand the meaning of words and apply them in sentences.

In addition, vocabulary's role is essential in language learning. Clouston (2021) stated "Without grammar, little can be conveyed. Without vocabulary, nothing can be conveyed". It means that having perfect grammar will have no effect if someone lacks of vocabulary. Additionally, Ur (1996) supports the idea that learning vocabulary is crucial in learning a foreign language because mastering various types of words makes it easier to communicate with others. These statements emphasize the significance of vocabulary instruction for students as foreign learners.

Moreover, in order to master English language skills, it is important to consider the types of vocabulary that are taught. Vocabulary consists of two types, namely receptive vocabulary and productive vocabulary (Nation, 2012). Receptive vocabulary is the type of vocabulary that is understood when read and listen to a word, while productive vocabulary is understood when speak and write. Both types of vocabulary affect speaking, writing, listening and reading skills.

Learning vocabulary is not just knowing the meaning of words but also understanding the knowledge implied in a word in general or in particular. Nation (2012) provided lists of what students should know to learn vocabulary. These things consist of the meaning of the word, spoken and written forms, word parts of the word (e.g., any prefix, suffix, and "root" form), grammatical

behaviour (e.g., its word class, typical grammatical patterns), collocations, word associations (e.g., words that are similar or opposite in meaning), and connotations.

According to Nation (1990), students can learn vocabulary in two different ways: directly and indirectly. Students engage in vocabulary-focused exercises and activities, such as word-building exercises, memorizing terms from lists, and vocabulary games, as part of direct learning. Teachers can organize students to do vocabulary exercises. Some vocabulary exercises need to be prepared well in advance. They can be part of the textbook or designed by the teacher. The main value of prepared exercises is that they can be made to systematically cover an area of vocabulary, and students can work on them independently without teacher assistance. If the exercises are done in pairs or small groups, there will be opportunities for students to learn from each other. Indirect learning involves students attending to vocabulary during reading and listening. Students can acquire vocabulary unintentionally by engaging in rich oral language experiences at home and at school, listening to books read to them, and reading independently

In reality, mastering vocabulary is not easy. Most students have difficulty in learning vocabulary such as pronouncing words, how to write and spell, how to use grammar patterns correctly (Susanto, 2021). In addition, students have difficulty learning vocabulary in memorizing new words and often disinterested in learning (Agustin, 2022). Furthermore, according to Afzal (2019), ineffective learning makes students feel bored quickly in learning vocabulary.

Based on the preliminary study by interviewing the eleventh-grade English teacher at SMAN 1 Grogol, the English teacher said that some students are not interested in learning vocabulary acquisition, this is due to the lack of variety in learning strategies. In addition, many students feel bored and sleepy during the lesson. Whereas, this school has good facilities and supports to use other learning strategies. Learning strategies using effective media should be presented in the classroom to increase students' enthusiasm in learning vocabulary.

In the current era, the use of technology-based media is widely developed. The use of media is developed in the form of games for learning. Heni et al. (2019) stated that game-based technology would be presented in language classes to increase learning motivation. The use of games in vocabulary learning is one of the alternatives to make learning more effective, fun, and interesting.

Realizing the importance of media in teaching vocabulary, the researchers want to research media that is not only for learning but also for playing. One of the teaching media for teaching vocabulary is Quizizz. According to Zhao (2019), Quizizz is a game-based educational application that provides multiplayer activities that engage students in the classroom and make classes more fun and interactive. There are several reasons why Quizizz can be used in teaching vocabulary. Quizizz is used as a media in the teaching and learning process because it is easy to use and has many features. Quizizz has several type of questions, such as multiple choice, drop-down, fill in the blank, match, drag and drop, labelling, graphing, and reorder.

Based on the explanation above, the researchers are interested in conducting research about the media for teaching vocabulary. Therefore, the research identifies the problem as formulated: 1) Is the use of Quizizz effective or not in students' vocabulary mastery of eleventh grade at SMAN 1 Grogol?

B. METHODS

This research focused on the effectiveness of Quizizz in students' vocabulary mastery of Eleventh grade. This research used quantitative method with quasi-experimental design. According

to Sugiyono (2016), quasi-experimental research design is a development of true experimental design, which is difficult to implement. The research design used a post-test-only control group design. There were two groups in this design, namely experimental group and control group. The experimental and control groups were not randomly selected. The experimental group received treatment from the researchers. On the other hand, the control group did not receive any treatment from the researchers, and they only received conventional teaching from the teacher. The post-test-only control group design scheme is shown in Table 1 as follows:

Table 1 Post-test Only Control Group Design

Group	Treatment	Post test
Experiment (R1)	X	O2
Control (R2)	-	O4

The population of this research was the whole of students of eleventh grade at SMAN 1 Grogol. The researchers took samples using purposive sampling. Sugiyono (2016) said that purposive sampling is a sample determination technique with certain considerations. Based on certain considerations related to the permission from the school that did not allow the researchers to create new classes that would be used as experimental and control groups. The sample was 72 students, consisting of 35 students of the class XI Social 2 and 37 students of XI Social 3.

The instrument in this research used a test. At the beginning of the research, the instrument made was tested (pilot study) first by the non-sample. Furthermore, the results of the pilot study were measured for validity and reliability.

In this research, the researchers conducted four meetings. The experimental group was given the treatment using Quizizz by the researchers for three meetings. Meanwhile, the control group used conventional teaching taught by the English teacher and did not receive treatment from the researchers. In the fourth meeting, the experimental and control group took a post-test to measure vocabulary mastery. Both groups got the same questions to measure their vocabulary mastery. The researchers conducted analysis of the data using SPSS 26 version. To collect the data, the researchers took the post-test and calculated the result. The following procedure was: scoring post-test; determining the mean, standard deviation, and standard error; normality test; and hypothesis test.

C. RESULT & DISCUSSION

Validity is a measuring tool that shows an instrument's validity level (measuring instrument). A valid instrument means that the instrument can be used to measure what should be measured (Anshori & Iswati, 2009). The researchers used three kinds of validity:

1. Construct validity: The instrument was consulted with English teacher and validator lecturer.
2. Content validity: The Instrument was prepared based on core competency and basic competency in the 2013 English curriculum for eleventh-grade Senior High School.
3. Item validity: Try out was conducted on non-sample participants to determine whether an instrument was valid or not. The results were calculated using the product-moment correlation coefficient formula using SPSS 26. The results of the calculation were compared with r table; if $r_{\text{count}} > r_{\text{table}}$, then the question items are valid. The significance level used was 5%. Based on the result of validity test, 26 items were declared valid, three items were declared invalid and had to be revised. The researchers used 29 items as research instrument to obtain information about students' vocabulary mastery.

Items that are declared valid are tested for reliability. Reliability relates to the instrument's reliability as a data collection tool (also measuring variables). A reliable instrument is an instrument

that can be used several times to measure the same object and will produce the same data although the implementation is in different times and conditions (Anshori & Iswati, 2009). To determine the accuracy of the data in this study, the reliability test used the Alpha Cronbach formula and was calculated using SPSS 26 version. To obtain the reliability of the vocabulary test, the researchers used SPSS 26 to find out whether the test was reliable or not. The result of reliability is shown below:

Table 2 Reliability Result

Reliability Statistics	
Cronbach's Alpha	N of Items
.678	29

From Table 2, it was found that the value of Cronbach's Alpha is 0.678. According to Riduwan (2019) categorized reliable. Following the interpretation of correlation coefficient values, 0.678 has 29 a reliable correlation level.

After conducting validity and reliability test. Experimental and control group took the post-test. The experimental group used Quizizz, meanwhile the control group used paper. After that, the researchers used SPSS 26 version to calculate the data. The comparison of experimental and control group can be seen in the table and histogram below:

Table 3 The Comparison Between Two Groups Statistics

		Experimental	Control
N	Valid	32	33
	Missing	0	0
Mean		59.44	47.48
Std. Error of Mean		2.883	2.384
Median		63.00	47.00
Mode		46 ^a	47
Std. Deviation		16.307	13.698
Variance		265.931	187.633
Range		63	59
Minimum		27	21
Maximum		90	80
Sum		1902	1567

a. Multiple modes exist. The smallest value is shown

Figure 1 Histogram Graph of The Experimental Group Post-Test

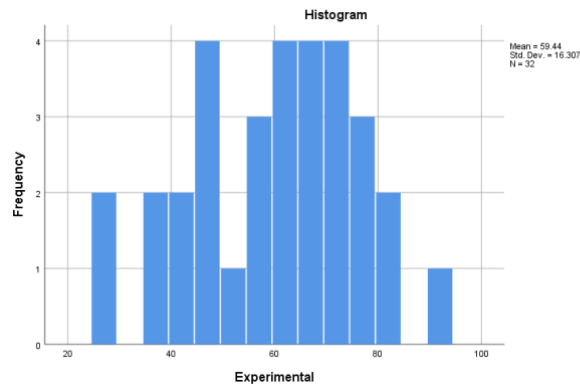
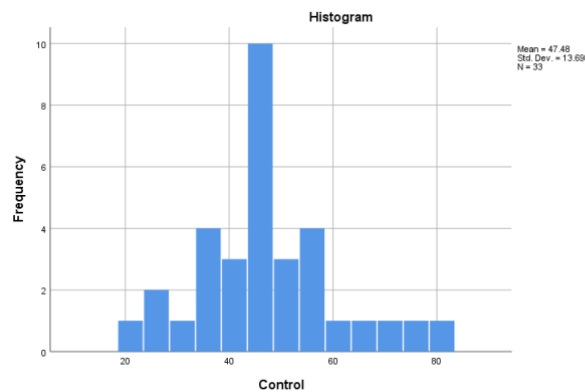


Figure 2 Histogram Graph of The Control Group Post-Test



From the table above, it can be seen the different values of the experimental group and control group. In the experimental group post-test, the highest score was 90, the lowest score was 27, the mean was 59.44, the median was 63, and the mode was 43. Meanwhile, in the control group post-test, the highest score was 80, the lowest was 21, the mean was 47.48, the median was 47, and the mode was 47. Then, it can be concluded from the table above the result of post-test experimental group had higher score than control group after the treatment using Quizizz.

Normality Test

The normality test aims to determine whether the data is normally distributed. Shapiro-Wilk was used by the researchers as a normality test in this analysis. Data is considered normal if $p \geq \alpha$, and α is a significant level of 0.05. The test results are shown in Table 4.5 below:

Table 4 Normality Test Result

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	Df	Sig.
Experimental Group	.118	32	.200*	.973	32	.584

Control Group	.129	32	.188	.969	32	.459
---------------	------	----	------	------	----	------

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Based on the results of the Shapiro-Wilk test output on SPSS 26, the experimental group variable is 0.584, and the control group variable is significant at 0.459 in the post-test normality test. Therefore, the experimental group and control group data are greater than 0.05. Thus, it can be concluded that the data is normally distributed.

Hypothesis Test

The research hypothesis testing is as follows:

- If $\text{Sign.} < \alpha$ (0.05), then the null hypothesis (H_0) was rejected. The alternative hypothesis (H_a) was accepted. This means that there is a significant difference in the scores of students taught using Quizizz as a vocabulary learning media and students taught using conventional methods.
- If $\text{Sign.} > \alpha$ (0.05), then the null hypothesis (H_0) was accepted. The alternative hypothesis (H_a) was rejected. This means that there was no significant difference between the students taught using Quizizz as a vocabulary learning media and students taught using conventional methods.

Therefore, to find out whether Quizizz was effective to be used as a learning media in students' vocabulary mastery, the researchers tested the results of the post-test by using the independent sample T-test in the SPSS 26. The results are as follows:

Table 5 Independent Sample Test Result

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
Post test	Equal variances assumed	2.817	.098	2.967	63	.004	11.25758	3.79442	3.67504	18.84011
	Equal variances not assumed			2.975	61.807	.004	11.25758	3.78436	3.69227	18.82288

Based on Table 7, Levene's Test for Equal variances assumed is seen at $\text{sig.} = 0.098$ because it is greater than 0.05. This shows that there is no difference in data variance, the data is the same or

homogeneous. Therefore, the way to test whether the null hypothesis (H_0) is rejected is to compare the significance level (0.05).

Table 7 shows that the significant value obtained is significant (p-value) of 0.004. Furthermore, the SPSS results obtained a significant value <0.05 ($0.004 < 0.05$), smaller than 0.05 ($\alpha = 5\%$). Thus, there is a significant difference in the scores of students taught using and not using Quizizz. This means that the null hypothesis (H_0) is rejected, or it can be said that the alternative hypothesis (H_a) is accepted.

The result of the study showed the Quizizz application's success rate in students' vocabulary mastery. The results of this study are in line with Agustin (2022). Her research showed that Quizizz is effective in students' vocabulary mastery. It was proven that the experimental group had a higher average than the control group in understanding vocabulary. Quizizz taught in the experimental class made students feel motivated to learn vocabulary in a fun way. In vocabulary learning in this study, students using Quizizz better understanding receptive and productive vocabulary. Moreover, Quizizz as a learning media makes students more motivated to play more quiz games to get better scores than others. It is in line with Brahmana (2022), Quizizz helps students to increase their attention and motivation to learn and helps them to remember vocabulary. The use of Quizizz media makes students feel less bored learning in class.

In line with Nation (2012), which said that students should know the things to learn vocabulary, such as the meaning of the word, word parts of the word (e.g., prefix, suffix, and root form), grammatical behavior (e.g., its word class, typical grammatical patterns), collocations, word associations (e.g., words that are similar or opposite in meaning), and connotations. Quizizz as a learning media provides a variety of question types that help students in vocabulary acquisition. During the treatment process of the experimental group, the students were involved in arranging the letters into a word. The use of fill-in-the-blank on Quizizz, students found it easier to sort letters into words. As a result, students were also able to guess the meaning of the word. In addition, in learning the context of the right word for a sentence, students were invited to choose five right words to fill in the blanks with the help of drop-down type on Quizizz. There were five choices of words that students must fill in, each column had one answer, so students only chose one correct answer. Therefore, students can know the grammatical pattern in what context to use the word. Besides that, in understanding the synonym and antonym of a word, a reading text was provided on Quizizz and students were asked to guess the synonym and antonym of the word according to the context. The use of multiple choice made it easy for students to guess which word was suitable for the answer. Moreover, students can identify the synonym and antonym of the word. Students also easily recognized the root of words and affixes in words, so students also manipulated them to create new words. As a result, students can distinguish the root of word and word with prefix or suffix. In further terms, Nation (1990) said that in vocabulary learning through direct learning, vocabulary learning is focused on exercises and activities, such as word arrangement exercises, memorizing terms from lists, and vocabulary games. In this case, Quizizz as a media included in vocabulary games and exercises provides various types of questions that make students interested in learning vocabulary.

Therefore, the use of Quizizz as a learning media is effective for student vocabulary mastery because it is able to improve learning outcomes and student understanding of vocabulary learning. In addition, to increase students' interest in learning vocabulary, the application of Quizizz received positive responses from students in the vocabulary teaching and learning process. In addition, Quizizz is said to be efficient for teachers and students as a fun learning media.

D. CONCLUSION

Based on the results of this study, it can be concluded that Quizizz effective for students' vocabulary mastery in the eleventh grade at SMAN 1 Grogol. The evidence is the experimental group achieved a higher mean score than the control group. The findings of the independent t-test, which reveal a significance value of 0.004, which is less than 0.05. Based on these findings, the alternative hypothesis (H_a) is accepted and the null hypothesis (H_0) is rejected. The mean obtained by the experimental group is 59.44, while the control group is 47.48. This indicates a difference in the mean of the experimental group and control group. These results prove that the use of Quizizz has a positive impact on student's vocabulary mastery. Quizizz as a learning media can help students learn vocabulary in a fun way.

REFERENCES

- Afzal, N. (2019). A Study on Vocabulary-Learning Problems Encountered by BA English Majors at the University Level of Education. *Arab World English Journal*, 10(3), 81–98.
<https://doi.org/10.24093/awej/vol10no3.6>
- Agustin, N. T. (2022). Effect of Using the Quizizz Application on Students' Vocabulary Mastery. *Dialectical Literature and Educational Journal*, 7(2), 96–102.
<https://doi.org/10.51714/dlejpancasakti.v7i2.74.pp.96-102>
- Anshori, M., & Iswati, S. (2009). *Buku Ajar Metodologi Penelitian Kuantitatif*. Airlangga University Press.
- Brahmana, A. A. A. (2022). The Implementation of Quizizz in Vocabulary Learning Activities : EFL Students' Perception and Motivation. *RETAIN (Research on English Language Teaching in Indonesia)*, 10(01), 172–178.
- Heni, V., Sudarsono, S., & Regina, R. (2019). Using Kahoot to Increase Students' Engagement and Active Learning: A Game Based Technology to Senior High School Student. *International Conference on Teaching and Education (ICoTE)*, 2(2), 236.
<https://doi.org/10.26418/icote.v2i2.38235>
- Lessard-Clouston, M. (2021). *Teaching Vocabulary* (Revised Ed). TESOL International Association.
- Nation, I. S. P. (1990). *Teaching and learning vocabulary*. Heinle&Heinle Publishers.
- Nation, P. (2012). *Laerning Vocabulary in Another Language*. Cambridge University Press.
<https://doi.org/https://doi.org/10.1017/CB09781139524759>
- Riduwan. (2019). *Belajar mudah penelitian untuk guru – guru dan peneliti poemula* (11th ed.). Alfabeta.
- Sugiyono. (2016). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Alfabeta.
- Susanto, H. (2021). *An Analysis About Students' Troubles in Acquisition English Vocabulary*. 4(2), 46–50.
- Tenorio, M. C. M. (2020). Vocabulary Development Worksheets for Grade Five Second Language Learners at Mohon Elementary School. *International Journal of Research in Engineering, Science and Management*, 3(8).
- Ur, P. (1996). *A Course in Language Teaching: Practice and Theory*. Cambridge University Press.
<https://doi.org/https://doi.org/10.1017/S0272263198283070>
- Zhao, F. (2019). Using Quizizz to Integrate Fun Multiplayer Activity in the Accounting Classroom. *International Journal of Higher Education*, 8(1), 37–43. <https://doi.org/10.5430/ijhe.v8n1p37>