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The Effectiveness of Quizizz Toward Students' Vocabulary Mastery at The Seventh Grade of SMPN 4 Padang Panjang

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ABSTRACT
The purpose of this study was to determine the effectiveness of using Quizizz on the vocabulary mastery of seventh-grade students at SMPN 4 Padang Panjang. This study used a quantitative descriptive method with two classes (VII.1 and VII.2) as samples, consisting of 64 students. The used in this study consisted of vocabulary mastery test results. The research results indicated that Quizizz was effective for students' vocabulary mastery, with an overall score categorized as high/good at 88. Both classes showed an improvement of +0.1 before and after Quizizz implementation. Based on this increase in vocabulary mastery test scores (+0.1) and average post-test scores above 80, Quizizz had a positive impact on students' vocabulary mastery. Although before and after test vocabulary scores were categorized as low, they demonstrated score stability that students could maintain, along with a consistent improvement. It can be concluded that Quizizz is an effective learning medium that enhances students' activity, participation, and motivation in vocabulary mastery.

Keywords: Quizizz, Learning Medium, Vocabulary Mastery

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INTRODUCTION

In English learning, vocabulary was students' primary need. (Nunan et al., 2003)defined vocabulary as the collection of words a person knew, including understanding their meanings and correct usage in various contexts. (Harmer, 2007) stated that vocabulary was a distinct element among the four language skills, reading, writing, listening, and speaking, that was most crucial for implementation, serving as the foundation for language comprehension. (Putri et al., 2022) added that without vocabulary mastery, communication provided no understanding. (Syarifudin et al., 2014) defined vocabulary mastery as students' ability to understand, memorize, and use words with their meanings appropriately in oral and written contexts.

Conventional media failed to meet these needs.(Syahrul, 2021) stated games were the best way to direct students' attention in class. (Anggaira et al., 2023) explained that the Quizizz application had been created as a learning medium supporting teaching and learning activities in all conditions, featuring a fresh appearance rich in fun elements. (Roza et al., 2023) emphasized educational technology solved educational problems, particularly improving classroom learning quality through interactive Quizizz implementation. (Reflinda et al., 2023) proved interactive learning media improved learning process quality and outcomes. (Melani et al., 2023) noted smartphone programs, websites, and various resources were effective for vocabulary teaching.

(Nation, 2022) stated Quizizz helped students master vocabulary enjoyably while enabling teachers to prepare enhancing materials. (Tas & Bolat, 2023) described Quizizz as an effective web-based educational platform supporting teaching through feedback and leaderboard features. (Fadhilawati, 2024) introduced Quizizz Paper Mode as a solution to improve vocabulary mastery without smartphones or laptops, allowing direct student progress tracking.

The researcher observed on October 3, 2024, at seventh-grade SMPN 4 Padang Panjang: first, teachers distributed QR code sheets for A/B/C/D answers by student names; second, questions were displayed via projector; third, students rotated barcode positions for answers; fourth, teachers scanned

answers using the Quizizz app on gadgets; fifth, results appeared on the projector; and sixth, student scores were displayed by ranking. Although procedures ran smoothly, the researcher identified three main problems: limited school facilities such as insufficient devices which prevented teachers from maximizing Quizizz implementation, low student motivation due to lack of emotional engagement and confidence, and high shyness from fear of mistakes before classmates, which hindered Quizizz gamification effectiveness.

This descriptive quantitative research measured Quizizz's effectiveness on seventh-grade students' vocabulary mastery at SMPN 4 Padang Panjang and found the answer to the research question: "Is it effective or not to use Quizizz on students' vocabulary mastery in the seventh grade of SMPN 4 Padang Panjang?"

METHOD

This research used a quantitative descriptive approach. Quantitative research measures things using numbers. The researcher used descriptive statistics (mean, median, mode, standard deviation) to analyze questionnaire data. According to (Widodo et al., 2023) this research can be used to describe the socio-demographic profile of respondents, describe the relationship patterns between certain variables, or describe the characteristics of a phenomenon. The research instrument used was the vocabulary mastery test result. This test was administered by the teachers, and the data collected by the researcher consisted of scores from before and after the implementation of Quizizz. The scores were obtained from the Grade VII English teachers who conducted Quizizz in the classroom.

FINDING AND DISCUSSION

Description of Data

This research involved 64 students as samples, consisting of 32 students from class VII.1 and 32 students from class VII.2. The main problem was that the implementation of Quizizz faced obstacles from limited facilities in enhancing seventh-grade students' vocabulary mastery. Thus, students required active participation in using mastered vocabulary, which should have been facilitated by Quizizz's gamification features. This was also caused by low student motivation and high embarrassment levels, which became major obstacles in achieving Quizizz's effectiveness for vocabulary mastery. Quizizz was chosen because it was able to present vocabulary material in an attractive, interactive, and enjoyable way. Quizizz allowed students to master vocabulary independently, repeatedly, and receive immediate feedback, thus increasing their motivation and participation in vocabulary mastery.

The instrument used in this research was a vocabulary mastery test designed to measure the effectiveness of Quizizz toward students' vocabulary mastery. The following were the scores from the test of vocabulary mastery that teachers had been done in both classes.

Table 1 Vocabulary Mastery Test Results from Both Classes

NO	Student Code VII.1	The score before	The score after	Student Code VII.2	The score before	The score after
1	ARH	78	81	AM	0	35
2	AK	88	92	AIR	80	80
3	ANA	90	92	AF	80	80
4	AN	90	93	AF	90	93
5	AWA	90	91	AAP	100	97
6	AS	95	95	AAG	80	80
7	AZ	100	98	AP	80	80
8	FA	85	90	ADP	100	95
9	FH	100	98	DA	80	80
10	FZ	100	100	DR	80	80
11	FZ	100	98	DRW	80	80
12	GF	88	95	DM	80	80
13	HS	85	89	FF	80	80
14	IA	88	92	FN	80	88
15	ISP	100	100	FPW	88	89
16	KIAA	100	98	HFA	80	80
17	KYS	100	98	HA	90	90

18	LAF	100	100	KH	100	95
19	MAU	100	100	LS	80	80
20	MA	90	91	MAA	80	80
21	MR	85	86	MA	80	80
22	NPHY	100	96	NP	80	80
23	P	78	79	NSRA	88	87
24	RIH	100	98	OAC	80	80
25	RO	90	89	PA	90	93
26	RAA	90	93	PA	80	80
27	RSL	88	92	RPA	80	80
28	RWY	88	92	RF	80	80
29	SY	88	92	RYP	80	80
30	SAH	85	88	VAC	80	80
31	VA	88	90	YH	80	80
32	ZAC	100	97	ZF	88	92

Source : The English Teacher of SMPN 4 Padang Panjang

Validity

Validity referred to the degree to which a measurement tool accurately reflected what it was intended to assess. According to (Sugiyono, 2013) an instrument is considered valid when there is consistency between the collected data and the actual data. A measuring instrument was said to be valid if it could provide accurate and consistent results with the research objectives. The researcher consulted with an English teachers at SMPN 4 Padang Panjang, namely Elvi, S.Pd who administered the test.

Reliability

Reliability was first established by the teachers, as the vocabulary mastery test was administered by the teachers. Since the test had already been conducted, the instrument was proven reliable and appropriate for use. The next step was to determine the reliability of the test vocabulary mastery. The formula used was as follows:

$$r_{kk} = \frac{k}{k-1}\left[1 - \frac{M\,(k-M)}{k\,{S_t}^2}\right]$$

Description:

r_{kk} : Reliability coefficient
k : Number of items
M : Mean total score
${S_t}^2$: Total score variance

Reliability testing was conducted using Microsoft excel. The reliability results were classified according to reliability criteria. The criteria used for reliability testing were *Kuder-Richardson 21 (KR-21)*. The reliability criteria were as follows according to (Budiastuti & Bandur, 2018) :

1 : Perfect reliability
.90 : Excellent reliability
>.80 : Good reliability
>.70 : Acceptable reliability
0 : No reliability

Based on the reliability calculation of the test vocabulary mastery from the trial of the Quizizz effectiveness instrument towards students' vocabulary mastery, the following results were obtained:

Table 2 Reliability Test Results Using KR-21

k	20
M	16,3125
${S_t}^2$	2033,770161
r_{kk}	0,997694541

The table 2 above showed that the result obtained is 0.997, so the test vocabulary mastery had Excellent reliability.

Analysis of Data

The researcher examined the effectiveness by analyzed the vocabulary mastery test result scores from students in class VII.1 and VII.2 using Microsoft excel and SPSS version 25. The researcher analysed the vocabulary mastery test result starting from before implemented and after implemented Quizizz. The following is the analysis that the researcher has conducted:

Data analysis from class VII.1

Based on table 1, in vocabulary mastery test result before the implementation Quizizz in class VII.1, score 78 was obtained by 2 students (6.3%). A score of 85 was obtained by 4 students (12,5%). A score of 88 was obtained by 7 students (21.9%). A score of 90 was obtained by 6 students (18.8%). A score of 95 was obtained by 1 student (3.1%). A score of 100 was obtained by 12 students (37.5%). There was a total of 32 students, percentage 100%. The results show that the test vocabulary result in class VII.1 before the implemented of quizizz got a percentage of 92%.

Then, the scores are entered into the following descriptive table:

Table 3 Descriptive Table of Vocabulary Mastery Scores Before the Implementation Quizizz in Class VII.1

Descriptive	Total Score before
Mean	92.09
Median	90.00
Modus	100
Std. Deviation	6.958
Range	22
Minimum	78
Maximum	100
Sum	2947

Based on table 1, in vocabulary mastery test result after the implementation Quizizz in class VII.1, score 79, 81, 86, 88, 96, 97 was obtained by 1 student each (3.1%). A score of 89, 90,91,93, 95, was obtained by 2 students each (6.3 %). A score of 92 and 98 was obtained by 6 students each (18.8 %). A score of 100 was obtained by 4 students (12.5 %). There was a total of 32 students, percentage 100%. The results show that the test vocabulary result in class VII.1 after the implemented of quizizz got a percentage of 93%.

Then, the scores are entered into the following descriptive table:

Table 4 Descriptive Table of Vocabulary Mastery Scores After the Implementation Quizizz in Class VII.1

Descriptive	Total Score After
Mean	93.22
Median	92.50
Modus	92a
Std. Deviation	5.253
Range	21
Minimum	79
Maximum	100
Sum	2983

Data analysis from class VII.2

Based on table 1, in vocabulary mastery test result before the implementation Quizizz in class VII.2, score 0 was obtained by 1 student (3.1 %). A score of 80 was obtained by 22 students (68.8 %). A score of 88, 90, 100 was obtained by 3 students each (9.4 %). There was a total of 32 students, percentage 100%. The results show that the test vocabulary result in class VII.2 before the implemented of quizizz got a percentage of 81%.

Then, the scores are entered into the following descriptive table:

Table 5 Descriptive Table of Vocabulary Mastery Scores Before the Implementation Quizizz in Class VII.2

Descriptive	Total Score before
Mean	81.06
Median	8000
Modus	80
Std. Deviation	16.120
Range	100
Minimum	0

Maximum	1025940
Sum	2947

Based on table 1, in vocabulary mastery test result after the implementation Quizizz in class VII.2, score 35, 87, 88, 89, 90, 92, 97 was obtained by 1 student each (3.1%). A score of 80 was obtained by 21 students (65.6 %). A score of 93 and 95 was obtained by 2 students each (6.3 %). There was a total of 32 students, percentage 100%. The results show that the test vocabulary result in class VII.2 after the implemented of quizizz got a percentage of 82%.

Then, the scores are entered into the following descriptive table:

Table 6 Descriptive Table of Vocabulary Mastery Scores After the Implementation Quizizz in Class VII.2

Descriptive	Total Score After
Mean	82.31
Median	80.00
Modus	80
Std. Deviation	10.425
Range	62
Minimum	35
Maximum	97
Sum	2634

The vocabulary mastery test results obtained were analyzed using N-Gain. According to (Latri et al., 2021) gain is the difference between posttest and pretest scores, indicating improvement in students' understanding or mastery after the learning conducted by the teachers. The method for analyzing the vocabulary mastery score using the following formula:

$$g = \frac{Sposttest - Spretest}{Smaximum - Spretest} \times 100\%$$

Based on the N-Gain calculation of the vocabulary mastery test of the quizizz effectiveness towards students' vocabulary mastery, the following results were obtained:

Table 7 The Average and N-Gain of Vocabulary Mastery Test Results from Both Classes

Class	Average score before Quizizz	Average score after Quizizz	N-Gain
VII.1	92.09	93.22	+ 0,1
VII.2	81.06	82.31	+ 0,1
Total	185,31	163,37	+ 0,1

The obtained data was measured using the normalized gain coefficient to determine the resulting values that indicate the effectiveness of Quizizz in students' vocabulary mastery. The normalized gain coefficient can be seen in the following table:

Table 8 Normalized Gain Classification

Normalized gain coefficient	Classification
g < 0,3	Low
0,3 ≤ g < 0,7	Medium
g ≥ 0,7	High

Source: (Latri et al., 2021)

The N-Gain analysis results in both classes produced a gain of 0.1, which is categorized as low. Although low, the students' scores demonstrate stability and consistency in the values obtained by students.

After conducting further analysis, the scores were evaluated to determine whether it was good or satisfactory. The scores examined are the average scores after Quizizz implementation in the sample classes. These are measured using:

Table 9 Curriculum Merdeka Assessment Criteria

Score Range	Category
>60	Poor
>60-70	Average
>70-80	Fair

>80-90	Good
>90-100	Excellent

Source : (RI, 2019)

After analyzing the vocabulary mastery test scores (before and after), the results show stability and improvement in using Quizizz for seventh-grade students' vocabulary mastery. This is proven by the score after Quizizz implementation of 88, which is categorized as good. Therefore, Quizizz is effective in improving seventh-grade students' vocabulary mastery.

Discussion

The findings of this study were in line with several previous studies. According to (Nation, 2022) Quizizz provided a fun and effective medium for students to learn vocabulary and assisted teachers in creating material. The research findings showed that Quizizz proved to give effective results for vocabulary mastery, as a medium, and created an interactive, creative, and innovative atmosphere. In addition, Quizizz fulfilled the requirements of a medium that could be used as a learning medium.

Quizizz, as a learning medium in vocabulary mastery instruction, enabled students to become more enthusiastic, engaged, and effective in retaining vocabulary knowledge. The results confirmed (Anggaira et al., 2023)**,** that quizizz enhanced student motivation and vocabulary retention. The application featured an appealing design with engaging elements that incorporated creativity, innovation, challenges, and fun, naturally motivating students to learn. These aspects supported students' reflection process while providing fair and consistent learning experiences, ultimately boosting students' confidence and excitement in using vocabulary.

Quizizz also supported Nunan's theory in teaching vocabulary, which emphasized contextual and practical learning. In this context, students did not only memorize vocabulary but also immediately applied it in exercises relevant to real life. Quizizz was able to serve as a vocabulary learning medium, supported students' reflection process, and provided a fair and sustainable learning experience, so students felt more confident and enthusiastic in using vocabulary.

This research, which discussed the effective learning medium for students' vocabulary mastery, was in line with the research of (Syahrul, 2021), (Reflinda et al., 2023), (Roza et al., 2023), and (Melani et al., 2023), (Putri et al., 2022). The use of creative, interactive, innovative learning media could change students' behaviors, the quality of learning process and enhance learning outcome. Learning medium that used technology could motivate students, resulting in active uses if vocabulary in the class. The use of learning medium such as quizizz could help teachers and was effective in helping students' vocabulary mastery well.

The vocabulary mastery test results showed consistent improvement in class VII.1, the score before was 92.09 and after 93.22, and the improvement was +0.1 points, and class VII.2, the score before was 81.06 and after 82.31, and the improvement was +0.1 points, with an overall after-test average of 88, falling into the high/good category. Although the gains were small, score stability remained very high. Class VII.1 maintained its excellent performance, while Class VII.2 improved from fairly good to good. Indicate that Quizizz effectively leveled vocabulary mastery across classes.

This study shared similarities with the research by (Imran & Tuajo, 2023), which described Quizizz as an effective learning medium for language mastery in a relatively fast, simple, and enjoyable manner. However, there were notable differences in the results, Imran's study showed substantial pre-test to post-test score improvements with a wide margin between initial and final scores, whereas this study demonstrated relatively modest gains between pre- and post-intervention scores. Nevertheless, both studies agreed that Quizizz proved effective in enhancing students' vocabulary mastery.

This study also aligned with (Nabila et al., 2020), particularly in demonstrating Quizizz's overall effectiveness for vocabulary mastery. However, differences existed in methodology: Nabila's study employed a treatment approach, while this research analyzes scores from teachers-implemented activities. Similar to Imran' study, Nabila's pre-test scores were very low, with post-test results showing substantial gains, unlike this study where pre-test scores were already high and post-test improvements reflected score stability maintained by students. While Nabila's work indicated gains without significant score retention, both studies ultimately confirmed Quizizz's effectiveness in enhancing student vocabulary mastery.

These findings reinforced Quizizz's effectiveness in overcoming previously mentioned school resource limitations. Students with a solid vocabulary foundation remained motivated to participate actively through Quizizz's gamification features, such as competitive points, real-time leaderboards, and instant feedback. These elements made learning more fun and interactive for everyone, helping all students improve their vocabulary without feeling pressured to speak in front of the class.

Thus, the results of this study showed that Quizizz was effective in improving vocabulary mastery of seventh-grade students at SMPN 4 Padang Panjang. The data obtained and analyzed were able to answer the research problems and proved that Quizizz was effective for vocabulary mastery.

CONCLUSIONS

This study concluded that Quizizz was effective in enhancing students' vocabulary mastery in seventh grade at SMPN 4 Padang Panjang. These results proved that the use of Quizizz had an effective impact on students' vocabulary mastery. As a learning media, Quizizz helped students learn vocabulary in an enjoyable way, motivated them to learn English, and creates a more engaging classroom atmosphere. Quizizz was a suitable learning medium for students' vocabulary mastery in seventh grade at SMPN 4 Padang Panjang in the academic year 2025/2026

Based on the results of this study, the researcher provides several suggestions:

1. For Teachers

   Quizizz, as a learning medium is used to enhance vocabulary mastery and facilitate learning. Teachers can use quizizz to introduce engaging techniques for vocabulary learning to make the teaching and learning experience more fun and less tedious.
2. For Students

   Students should show greater enthusiasm for acquiring English skills, particularly to enhance their vocabulary mastery. Quizizz can be one of the learning medium that can be an enjoyable way to motivate students to improve their vocabulary mastery.
3. For Future Researchers

   For future researchers, this study can serve as a reference. It is recommended to use the vocabulary mastery test result as the main instrument. Future researchers are encouraged to continue using the vocabulary mastery test result as the primary instrument, add other instruments if necessary, and explore new techniques or strategies in utilizing gamification medium to enhance students' motivation and participation.

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