

The Use of Quizizz Integration in English Language Learning to Increase Student's Vocabulary Mastery

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INFO ARTIKEL

Diterima :

28 Mei 2025

Disetujui :

17 September 2025

Dipublikasikan :

25 September 2025

Abstract:

This research aims to test the effectiveness of learning media using quizizz apk on vocabulary mastery. This study uses a quantitative approach with an experimental research design. The study was conducted at MTs Salafiyah Siman Sekaran class VIII. Data collection techniques were carried out with pre-test and post-test. The instrument used was a student worksheet with a multiple-choice model. The results of the study showed that there was a significant difference in the implementation of the pretest and posttest. This is evidenced by the increase in the average count of the pretest and posttest scores which increased with an average value of 90.13. In addition, based on the results of the t-test, it can be seen that sig (2-tailed) 0.000 is smaller than 0.05. Thus, it is stated that learning media using the Quizizz apk is effectively applied in the vocabulary mastery of class VIII students

Abstrak:

Pembelajaran menggunakan apk quizizz terhadap penguasaan kosakata. Penelitian ini menggunakan pendekatan kuantitatif dengan desain penelitian eksperimen. Penelitian dilakukan di MTs Salafiyah Siman Sekaran kelas VIII. Teknik pengumpulan data dilakukan dengan pre-test dan post-test. Instrumen yang digunakan adalah lembar kerja siswa dengan model pilihan ganda. Hasil penelitian menunjukkan adanya perbedaan yang signifikan pada pelaksanaan pretest dan posttest. Hal ini dibuktikan dengan adanya peningkatan hitung rata-rata skor pretest dan posttest yang meningkat dengan nilai rata-rata sebesar 90,13. Selain itu, berdasarkan hasil uji-t dapat diketahui bahwa sig (2-tailed) 0,000 lebih kecil dari 0,05. Dengan demikian, dinyatakan bahwa media pembelajaran menggunakan apk Quizizz efektif diterapkan dalam penguasaan kosakata siswa kelas VIII.

Kata Kunci:

English Language
Learning ,
Vocabulary
Mastery, Quizizz

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Mastery of comprehension (vocabulary) is one of the essential aspects of learning English. Adequate vocabulary provides the foundation for students to develop reading, writing, listening, and speaking skills. According to Purwo in Aris Yunisah (2007), that vocabulary mastery is a person's understanding of the vocabulary of a language and his ability to use that vocabulary both orally and in writing. must master the vocabulary. According to Zuchdi (1995) vocabulary mastery is a person's ability to recognize, understand, and use words properly and correctly by listening, speaking, reading and writing. However, students often face significant challenges in vocabulary mastery, especially in schools that still rely on traditional teaching methods, such as the teacher-centered approach. Initial observations at MTs Salafiyah revealed that many eighth-grade students struggle to master English vocabulary, demonstrated by their low ability to understand simple texts and answer comprehension-based questions. This issue is exacerbated by students' lack of interest in learning due to monotonous teaching methods, which reduce enthusiasm and participation in the learning process. To address this, innovative learning strategies are needed to engage students actively and make learning more interactive and enjoyable.

This research aims to determine the effectiveness of interactive learning in improving students' vocabulary mastery. By adopting technology-based methods, students are expected to learn enthusiastically, actively engage in the learning process, and enhance their comprehension skills. One promising solution is integrating artificial intelligence (AI) in education. Artificial intelligence (AI) technology has various aspects of life, including the education sector. In education, AI can create a more interactive and personalized learning environment (Alqahtani et al., 2023). AI-based learning tools, such as interactive applications and gamified platforms, offer innovative alternatives to conventional methods by fostering autonomy, motivation, and personalized learning experiences. Research by Seldon and O. Abidoye (2018) highlights the strategic value of AI in education, while Sun and Wang (2023) demonstrate that AI tools can significantly improve vocabulary retention by up to 30% compared to traditional methods.

Quizizz, a game-based educational application, has been identified as an effective tool for engaging students and improving vocabulary mastery. The platform allows students to complete quizzes in an interactive and enjoyable way, accessible via computers or mobile devices. Quizizz replaces traditional paper-and-pen quizzes with gamified, technology-driven evaluations that provide immediate feedback. According to Wibawa et al. (2019), this application enhances student enthusiasm, focus, and seriousness, fostering a more student-centered learning process. This makes Quizizz a valuable tool for addressing challenges in vocabulary learning and motivating students.

Several previous studies have affirmed the effectiveness of Quizizz in enhancing the learning process. For instance, Yuni Winingsih (2022) found significant differences in vocabulary mastery between students taught using Quizizz and those taught without it, with the former group demonstrating superior outcomes. Another study by Nurul Jannah (2022) confirmed the positive impact of Quizizz on students' learning motivation, particularly in class XI students at SMA Ma'arif Karangmoncol. These findings highlight the potential of Quizizz to revolutionize traditional learning methods and improve educational outcomes.

Despite the proven benefits of Quizizz, previous studies have primarily focused on its impact on general learning motivation or other skills, rather than its specific role in enhancing vocabulary mastery. This research seeks to bridge this gap by exploring the application of Quizizz in improving vocabulary comprehension among eighth-grade students. The findings will contribute to a deeper understanding of how game-based learning tools can be integrated effectively into the English curriculum to enhance students' language proficiency.

This study aligns with the goals of the Independent Curriculum, which emphasizes student-centered learning approaches to develop communicative competence in English. Vocabulary mastery is a critical component of this curriculum, enabling students to understand, write, and communicate effectively. By incorporating Quizizz into the learning process, this research aims to address the challenges faced by MTs Salafiyah students and provide a framework for leveraging technology to enhance English vocabulary mastery in similar educational contexts.

METHOD

This research uses a quantitative approach using a pre-experimental plan, specifically the one-group pre-test and post-test model. This design was chosen to determine the effectiveness of the quizziz application learning media in improving students' mastery of skills without comparing it with the control group. This study focused on one class of eighth grade students at MTs Salafiyah Siman Sekaran in the 2024/2025 academic year.

The participants in this study were 23 students consisting of 12 females and 11 males. This class was selected based on the recommendation of the English teacher who stated that students were at the early stage of formal English learning and showed significant vocabulary learning difficulties. The application of the Quizziz Alone learning media is expected to overcome these challenges by involving students more actively in the skill learning process.

The instruments used in this study included a vocabulary test (a pre-test consisting of 25 multiple-choice questions and a post-test consisting of 50 multiple-choice questions) which were given as a pre-test and post-test. This test aims to assess students' basic mastery before and after treatment. To ensure the validity and reliability of the questions, assessment by experts from English lecturers was requested. Construct validity and validity were confirmed, and inter-rater reliability of the content used during the assessment process.

The research procedure began with a pre-test to determine students' basic understanding, followed by the application of quiz learning media for four meetings. During the treatment phase, students were taught through the steps of answering questions using quiz media: one of the problems is that MTs Salafiyah students are not allowed to use cellphones to study, so the researcher used a paper quiz mode where students used their respective barcodes when answering questions, then the researcher transferred the answers using cellphones and the answers had been inputted, students could see on the TV screen. After the treatment, a final test was conducted to improve understanding.

To analyze the data, the researcher used descriptive statistics, normality tests, and Wilcoxon Signed-Rank Tests through SPSS software, because the final test data were not normally distributed. This test was used to determine significant differences between pre-test and post-test scores. The entire research process was conducted for three months, with a systematic approach to data collection, handling, and evaluation.

RESULT AND DISCUSSION

This chapter contains a description of the data based on the results of data analysis. This section presents the findings of the study aimed at evaluating the effectiveness of the quizziz learning media on students' vocabulary mastery. The results of the study were based on the analysis of students' pre-test and post-test scores, which were supported by normality and significance tests using SPSS.

The presentation of the results of this study is arranged into several main points: (1) descriptive analysis of pre-test and post-test scores, (2) normality test to determine data distribution, (3) hypothesis testing using the Wilcoxon Signed-Rank Test. All statistical data were processed using SPSS. After the treatment, the researcher conducted a post-test as the final study. The data results show the descriptive statistics of the pre-test and post-test in the table below:

Table 1 The Descriptive Statistic of Pre-Test and Post-Test Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Pretest	23	24	68	47.48	13.925
Valid N (listwise)	23				

	N	Minimum	Maximum	Mean	Std. Deviation
Posttest	23	72	98	90.13	5.987
Valid N (listwise)	23				

Based on the results of the descriptive statistical analysis, the pre-test scores of the 23 students showed a minimum score of 24, a maximum score of 68, and a mean score of 47.48. After the treatment using the quizziz application, the post-test scores ranged from a minimum of 72 to a maximum of 98, with a mean score of 90.13. These values describe the distribution of students' scores before and after the implementation of quizziz, providing a numerical overview of their performance in each test session.

Analysis of Prerequisites Testing

Normality Test

The normality test was conducted to determine whether the students' pre-test and post-test scores were normally distributed. This analysis is crucial in deciding the appropriate statistical method for hypothesis testing. If the data are normally distributed, a parametric test such as the paired sample t-test can be used; otherwise, a non-parametric test like the Wilcoxon Signed-Rank Test is more suitable. In this study, the normality test was carried out using both the Kolmogorov-Smirnov and Shapiro-Wilk methods through SPSS software. The decision rule is based on the significance value (Sig.): if the Sig. value is greater than 0.05, the data are considered normally distributed; if the Sig. value is less than 0.05, the data are considered not normally distributed.

Researchers used Kolmogorov-Smirnov and Shapiro-Wilk to test for normality. SPSS 21 was used to analyze the data. The results can be seen as follows:

Table 2 Table of Normality Tests of Normality

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
pretest	.143	23	.200*	.932	23	.123
posttest	.231	23	.003	.882	23	.011

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

a. Lilliefors Significance Correction

The result of the normality test showed that the pre-test data were normally distributed, while the post-test data were not. This can be seen from the significance values obtained through the Kolmogorov-Smirnov and Shapiro-Wilk tests. The significance value of the pre-test was 0.200 for Kolmogorov-Smirnov and 0.123 for Shapiro-Wilk, which means the data were normally distributed because the values were higher than 0.05. Meanwhile, the post-test showed significance values of 0.003 for Kolmogorov-Smirnov and 0.011 for Shapiro-Wilk, which were

lower than 0.05. It means the data were not normally distributed. Therefore, the researcher used the Wilcoxon Signed-Rank Test as a non-parametric test to analyze the difference between the pre-test and post-test scores.

Hypothesis Testing

After collecting the data, the researcher entered the scores into the SPSS program to determine whether there was a significant difference between the pre-test and post-test results. Since the data were not normally distributed, the researcher used the Wilcoxon Signed-Rank Test as the appropriate statistical analysis. The result of the Wilcoxon Signed-Rank Test is presented in the table below:

Table 3 Wilcoxon Signed-Rank Test

Test Statistics^a	
	posttest – pretest
Z	-4.199 ^b
Asymp. Sig. (2-tailed)	<.,001

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

The result of the pre-test and post-test data was analyzed using the Wilcoxon Signed-Rank Test. Based on the table above, the Asymp. Sig. (2-tailed) value is 0.001, which is less than 0.05. This indicates that there is a significant difference between the pre-test and post-test scores. Therefore, it can be concluded that H_a is accepted and H_0 is rejected. In other words, the use of quizziz application had a significant effect on students' vocabulary mastery.

CONCLUSSION

Based on the results of this study, it can be concluded that the use of quizziz learning media is effective in improving students' vocabulary mastery. This is evidenced by the significant difference between pre-test and post-test scores, as evidenced using the Wilcoxon Signed-Rank Test. This strategy encourages students' active participation in identifying, discussing, and understanding new vocabulary, which contributes to better retention and comprehension. Therefore, quizziz can be considered a useful and interesting medium for teaching vocabulary in English classes, especially at the junior high school level.

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