The Effectiveness of Weekly Online-Based Quizzes on English Test Scores in 8th Grade Students at SMPN 1 Mataram

Ika Permata Sari*, Muhammad Amin, Ahmad Junaidi

English Education Department, Faculty of Teacher Training and Education, University of Mataram, Jl. Majapahit No. 62, Mataram NTB, 83115. Indonesia
*Corresponding Author: tatapermata08@icloud.com

Abstract: Online-based quizzes have been widely used to enhance student learning outcomes, but their impact on test performance in 8th grade has not been thoroughly examined. This study aims to investigate the effectiveness of weekly online-based quizzes in improving the test scores of 8th-grade students at SMPN 1 Mataram. A quantitative pre-test and post-test design was implemented with 30 participants. The findings revealed a significant improvement in students' test scores, supporting the integration of online-based quizzes as a tool to enhance learning outcomes.

Keywords: 8th Grade Students, Online-Based Quizzes, Test Scores, Vocabulary Mastery.

INTRODUCTION

This study explores the role of weekly online quizzes in enhancing the test scores of 8th Grade students at SMPN 1 Mataram. Moreover, the researchers chose online quizzes as the intervention in the experiment because technology has become a crucial aspect of our daily lives including education. In recent years, the integration of online tools and platforms into teaching environments has grown significantly. As education evolves with advancements in technology, online tools and platforms have become integral to modern classrooms, providing engaging alternatives to traditional teaching methods (Pierich, 2023).

One technological-mediated teaching tool that is commonly used in the teaching process is online-based quizzes. According to (Bognár et al., 2021), further, online quizzes can enhance the effectiveness of learning and aid in understanding and interpreting the processed material. Therefore, the stakeholders in SMPN 1 Mataram utilize weekly online based-quizzes as a strategy to prepare students for computer-based exams and is used to improve their academic achievements. The integration of technology, such as online quizzes, aligns with the references of digital-native 8th Grade students and therefore is useful for instrument for raising students' learning outcomes.

For a foreign language learner, vocabulary plays a vital role in various aspects of communication, learning, cognitive growth, and the expression of ideas. Without an adequate vocabulary, learners may struggle to achieve proficiency in four language skills and could affect learning outcomes. Platforms like VocabTest.com and Quizziz.com, in addition to this, offer interactive vocabulary exercises, making learning more engaging. Cohen & Sasson (2016) further postulated that online quizzes help to engage and motivate learning. These, moreover, might motivate students to finish required readings and boost discussion involvement (Hillman, 2012) and allow for the adoption of more active learning techniques during class time. This means that a balance between individual learning and participation in class can be achieved with the help of weekly quizzes.

The impact of weekly online quizzes on students' test score have indicated that it can enhance exam result (El-Hashash, 2022 ; Dalfen et al., 2018). Several studies show that online quizzes can help students understand and retain the material better (Kilickaya, 2017) in line with suggestion from Angus & Watson (2009), help to improve the vocabulary (Nabila & Talib, 2023). Despite the widespread adoption of such tools, the impact of these quizzes on test performance in 8th Grade of SMPN 1 Mataram has not been thoroughly examined. This research aims to address this gap by evaluating the effectiveness of weekly online quizzes in improving students' test scores, providing valuable insights for educators and policymakers on technology-enhanced learning in education.

LITERATURE REVIEW

Weekly Online-based Quizzes

Online-based tests, which often featuring multiple-choice or true-false questions, can serve as an effective method of electronic assessment across various design settings (Donita Cohen, 2016). Further, according to Cohen and Sasson (2016b) and Hilman (2012), online quizzes are generally viewed positively since they play a role in engaging and motivating students and boost discussion involvement throughout the learning process. This, to add to that, postulates that with the support of weekly quizzes, students are able to remain focused and engage more actively in classroom activities. With such an advantages of online-based quizzes, it is expected that the students' test score can improve significantly by the involvement of such tools in the teaching and learning process.

Students today have access to numerous online quiz platforms where they can use a variety of quizzes to test and improve their English grammar, vocabulary, pronunciation, listening, speaking, reading, writing, spelling, and general knowledge (Essberger, 2023). As Licorish et al. (2018) discovered in their study, popular online quizzes site *Kahoot!* has been shown to increase students' motivation and engagement. As a result, it is clear to see that online-based test can enhance students' motivation and engagement in the teaching process.

However, while online quizzes can offer certain advantages in terms of student engagement and preparation, their influence on test performance remains uncertain and may vary based on factors like quiz frequency, format, subject matter, and the specific student group. In the next section, the researchers indulge reader about the test score's types that are used in this study.

Test Score

Albeit several studies that focused on the students' test score such as in the frequent time (El-Hashash, 2022; Dalfen et al., 2018), low-mark online exam (Angus & Watson, 2009), planned quizzing (Marcell, 2008) indicate that there is an improvement on the students' performance, a number of variables such as quiz's design, student participation, and the availability of instant feedback, may affect how effective online tests are. To ensure that weekly online quizzes are beneficial in raising students' exam scores, it is crucial to take those aspects into account while putting them into practice. In order to fill this gap, the researchers, then, included three types of tests in the practice. First, the researchers include exam grade since Latif & Miles (2020) found that there is no discernible difference in the students' ability to score higher grades on exams. Then, the inclusion of quiz and exam performance in the practice is utilized because Dalfen et al. (2018) found that a contingency for quiz accuracy was functionally related to increased quiz and exam performance, with socially significant exam results being more strongly influenced. Lastly, academic performance also is taken into account.

Vocabulary

Vocabulary is one of the most important elements in language skill. This is supported by Essberger's (2023) statement that While all micro-skills, such as pronunciation, grammar, and vocabulary, are undoubtedly important, lacking vocabulary makes speaking significantly more challenging than lacking grammar. Other than that, Nation's (2013) work on vocabulary learning and teaching asserted that mastery of vocabulary is essential to proficiency in language. As a result, it is undisputed that students' vocabulary repertoire worths of attention. There are widespread results of consistency in regard with the vocabulary in teaching process with online test. One of them is the study from Kilickaya (2017) which found that Web-based language examinations on academic vocabulary has some benefits including instant feedback and multimedia features. Despite the growing interest in using online tests for assessment (Rofiah & Waluyo, 2020) more empirical evidence is still needed. While studies suggest that online quizzes, including weekly ones, could support vocabulary development, their precise effectiveness in this context requires further research and validation. In order to discover the precise effectiveness of weekly online-based quizzes in regard with students' test score, the researchers utilized several research methods. In the next section, the researchers provide the research methods that is utilized in this study to the reader.

METHODS

This study employed a quantitative research design to evaluate the impact of weekly online-based quizzes on the test scores of 8th-grade students at SMPN 1 Mataram. A one-group pre-test and post-test design was used. The population included all 8tg Grade students, and a purposive sampling technique selected 30 students for the study. The primary instruments were pre-test and post-test assessments, each consisting of 50 multiple-choice vocabulary questions covering 800–1000 high-frequency words commonly encountered in middle school English curricula. From the population and the instrumental used, the researchers then collected the data by conducting experimental research. This experimental research utilized the online-based quizzes as an independent variable and students' test scores as dependent variable. After the data have been gathered, they were analyzed using SPSS version 26. Paired sample t-tests were conducted to compare pre-test and post-test scores, while normality tests ensured the data met statistical assumptions. The effectiveness of the intervention was determined by examining the mean score differences and statistical significance. This method ensured a systematic approach to exploring the relationship between weekly online-based quizzes and student test performance.

FINDING AND DISCUSSION

Finding

The result of students Pre-Test and Post-Test

The data on the scores of class 7A students, consisting of 30 students, are displayed. The average Pre-Test score was 50.97, with the lowest score of 0 and the highest score of 90. Meanwhile, the average Post-Test score was 84,97, with the lowest score of 68 and the highest score of 100. From the results of the scores obtained, it can be indicated that there are noticeable changes in the Pre-Test and Post-Test scores conducted in the experimental class.

The result of normality test of one group Pre-Test and Post-Test

The results of the normality test were conducted to determine whether the data obtained by the group were normal or not. In this study, the researcher used the Shapiro Wilk test with the help of SPSS to test normality.

Table 1. Normality test of one group Pre-Test and Post-Test

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Pretest	0.116	30	0.200[*]	0.935	30	0.067
Posttest	0.145	30	0.110	0.939	30	0.084

*. This is a lower bound of the true significance.
a. Lilliefors Significance Correction

From the results of the SPSS 26 calculations above, it shows that the results of the normality test with Kolmogorov, it was found that the pre-test value was 0.116 with a sig. 0.200. The results of the normality test with Shapiro, it was found that the pre-test value was 0.935 with a sig. 0.067. From the Kolmogorov normality test, it was found that the post-test value was 0.145 with a sig. 0.110. The results of the results of the normality test with Shapiro, it was found that the post-test value was 0.939 with a sig. 0.084. Based on the results of the normality test above on the pre-test and posttest, if the sig value> 0.05 then the data is normal. So it can be indicated that the distribution values in the pre-test and post-test using Shapiro-Wilk are normally distributed. So, it can be indicated that the data is normally distributed because the class significance value is above 0.05.

Hypothesis Testing

Table 2. Paired Sample Test

Paired Samples Statistics		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pretest	50.97	30	28.152	5.140
	Posttest	84.23	30	10.152	1.854
Paired Samples Correlations					
		N		Correlations	Sig.
Pair 1	Pretest & Postest	30		0.697	0.000

Paired Samples Test							T	df	Sig. (2-tailed)
		Paired Differences							
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pretest Posttest	-24.71	12.152	2.183	-29.167	-20.252	-11.321	30	0

Based on the attached Table 2, it can be seen that the sig. (2-tailed) values for the Pre-Test and Post-Test are 0.00. The sig. (2-tailed) value is 0.00 (<0.05). Therefore, it can be concluded that the results of the t-test with the Paired Sample Test show that the t-value obtained is -8.173 with df = 29 and sig = 0.000. Since the sig. value (0.000) is smaller than the significance level of 0.05, the null hypothesis is rejected. This indicates that there is a significant difference between the scores before and after the treatment. Further, the treatment has a significant effect on the measured scores.

Discussion

Regarding to the result of this research, therefore, the researchers conclude that online-based quizzes can affect students' learning outcomes. Weekly online-based quizzes can affect students learning outcomes. Teachers must be more creative in using technology, especially in teaching vocabulary. According to the Pre-Test and Post-Test after regularly taking quizzes students' scores significantly improved. Weekly online-based quizzes were highly enjoyable methods, enabled students to actively participate though online platforms, boosted their motivation, making learning process effective and there were features that makes quizzes even more interesting.

The data shows that there was improvement on students who have taken the quizzes. The result from 30 students in a class Pre-Test and Post-Test. It was shown by the mean scores of Pre-Test (50.97) and Post-Test (84.43). Weekly online-based quizzes result in a significant difference between Pre-Test and Post-Test because consistent weekly practice increases students' enthusiasm, especially since they never experienced such quizzes before. Students' motivation and ambition drive consistent quizzes participation, reinforcing understanding and preventing score declines. Minimal improvement may stem from differing learning styles or neglecting feedback, but focus and determination ensure steady performance.

The results of the paired sample t-test shows a significant difference between Pre-Test and Post-Test scores, with a mean difference of -33.267 points and a p-value of 0.000, indicating strong evidence to reject the null hypothesis and confirming that the intervention, weekly online-based quizzes, had a real impact on participants' performance. However, the negative mean difference suggests a decrease in scores, which could imply varied effects of the intervention depending on context. The standard deviation of 22.294 highlights considerable variability in participants' responses, likely influenced by individual differences such as prior knowledge, learning preferences, cognitive abilities, and varying levels of engagement, including motivation, participation, and attendance. External factors like internet connectivity and

mood may also have played a role. This variability underscores the need for future research to explore these factors further to better understand what influences the effectiveness of such interventions.

Based on the Testing Effect Theory, which suggests that actively recalling information through testing strengthens memory, frequent testing can enhance comprehension and memory recall. This study explored whether weekly online-based quizzes improved test scores for 8th Grade students at SMPN 1 Mataram and found results consistent with the theory, demonstrating that regular testing enhances memory. Supporting studies align with these findings; (Cohen & Sasson, 2016) showed that regular online quizzes boost quiz and final exam scores, while (Kilickaya, 2017) found that pre-lecture quizzes improved academic performance and preparedness, aiding comprehension and memory. Similarly, (Nabila & Talib, 2023) discovered that frequent quizzes using the Quizizz app significantly enhanced students' vocabulary mastery. These studies collectively support the notion that online quizzes improve academic performance across various contexts and subjects, though factors like quiz structure, real-time feedback, and student engagement play a significant role in their effectiveness.

CONCLUSION

The findings of this research highlight the transformative potential of technology-enhanced learning tools such as weekly online-based quizzes in improving students' academic performance. By actively engaging students through interactive platforms like Quizizz, the study not only improved vocabulary retention but also increased students' motivation and participation. The significant results underscore the importance of incorporating modern educational strategies to foster effective learning. Prospects for future research include the exploration of personalized feedback mechanisms and adaptive quiz designs to further address individual differences among students, ensuring optimal learning outcomes for diverse populations.

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