

The Effect of Using Quizizz as an Evaluation Medium on the Learning Progress of Informatics Students in Class X

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ABSTRACT

This study aims to analyze the effect of using Quizizz as an evaluation medium on the learning progress of tenth-grade Informatics students at SMAN 1 Gunung Omeh. The research employed a quantitative approach with a quasi-experimental design using two classes: one experimental class utilizing Quizizz for formative assessment and one control class using conventional paper-based tests. Data were collected through pretests and posttests to measure students' progress before and after treatment. Statistical analyses included normality, homogeneity, and independent samples t-tests. The results showed that the average posttest score of the experimental class (86.81) was higher than that of the control class (79.74). The t-test value of -2.841 with a significance level of 0.006 (<0.05) indicated a significant difference between the two groups. These findings demonstrate that the use of Quizizz as an evaluation medium significantly improves students' learning progress by fostering engagement, motivation, and immediate feedback. The integration of technology-based evaluation enhances interactivity and helps students better understand learning materials. Thus, Quizizz proves to be an effective alternative evaluation tool for supporting meaningful and enjoyable learning experiences in Informatics education.

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INTRODUCTION

Education is a crucial aspect in shaping the quality of human resources that are superior, creative, and adaptive to changes in the era. According to Law No. 20 of 2003, education is a conscious and planned effort to create a learning atmosphere and process that enables students to actively develop their potential to have spiritual strength, self-control, personality, intelligence, noble character, and skills necessary for themselves, society, nation, and state. The national education goal, as regulated by law, is to build a foundation of intelligence, knowledge, personality, good character, and skills for self-development and further education. The education system in Indonesia needs to be continuously improved to prepare superior human resources in accordance with the vision of education goals. In the learning process, it is essential to monitor students' progress continuously so that educators can adjust teaching methods and provide appropriate interventions according to students' needs. One way to monitor this progress is through regular and systematic evaluation.

Evaluation serves to determine the level of student understanding of the material and provide feedback to teachers to improve the learning process (Dakran et al., 2024). One form of evaluation that is often used in educational research is pretest and posttest, which plays an important role in measuring the effectiveness of a learning process (Nailan & Hodijah, 2025). Based on interviews conducted with several students at SMAN 1 Gunuang Omeh, it was found that one of the main difficulties in the learning process is the lack of understanding of the material that has been taught, especially when evaluations are conducted conventionally without direct feedback. Some students admitted to feeling anxious and pressured during written tests, so the evaluation results do not always reflect their actual abilities. Additionally, they feel that the evaluation process is monotonous and boring.

The use of technology as an evaluation medium in the school environment is still relatively minimal. Many teachers still rely on traditional evaluation methods such as daily tests in the form of written questions on paper, which tend to be time-consuming and less interactive. Therefore, they expressed hope that the evaluation process could be made more interactive, fun, and provide results quickly so that they can immediately know their weaknesses. One solution offered is the use of the Quizizz platform as a technology-based evaluation medium. Quizizz offers various advantages that are relevant for improving the quality of learning evaluation. First, the platform maximizes student engagement through gamification approaches, making the quiz process enjoyable and increasing student participation. Second, immediate feedback allows students to know whether their answers are correct or incorrect, accompanied by explanations that deepen understanding. The importance of this research is to improve students' learning progress in Informatics learning (Dewi et al., 2022). Based on the above considerations, the researcher takes the title "The Influence of Using Quizizz as an Evaluation Medium on the Learning Progress of Informatics Students in Class X".

METHOD

The research method used in this thesis is quantitative research with a quasi-experimental method. This method was chosen because the researcher wants to determine the effect of using digital evaluation media (Quizizz) on students' learning progress in Informatics. The research design used in this study is a non-equivalent control group design, which uses two sample groups: an experimental class that receives treatment in the form of formative assessment using Quizizz, and a control class using conventional media (paper test). The population in this study consists of all students in class X at SMAN 1 Gunuang Omeh in the academic year 2025/2026. Since there are only two classes X in the school, both classes are used as research samples. Class XE1 is designated as the control class, while class XE2 is designated as the experimental class.

In this study, the researcher uses tests as a tool to collect data. Students are given two types of tests: a pre-test conducted before the treatment and a post-test conducted after the treatment. The data analysis technique used in this study includes normality test, homogeneity test, and hypothesis testing. These tests are used to determine the effect of using Quizizz as an evaluation medium on students' learning progress in Informatics.

RESULTS

1. Normality Test

The normality test aims to determine whether the data for each variable is normally distributed or not. In this study, the normality test was conducted using the Shapiro-Wilk formula with the help of SPSS version 25 software. The decision-making criteria are based on the significance value (Sig.), where if the Sig. value is greater than 0.05, the data is said to be normally distributed, and if the Sig. value is less than 0.05, the data is considered not normally distributed. The results of the normality test are presented as follows:

Table 1. Normality test

	Tests of Normality					
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Pretes Kontrol	.119	34	.200*	.951	34	.132
PostesKontrol	.134	34	.126	.949	34	.111
Pretes Eksperimen	.145	34	.069	.952	34	.144
PostesEksperimen	.114	34	.200*	.979	34	.756

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

a. Lilliefors Significance Correction

Source: normality test from apk SPSS

Based on the normality test results in the table above using Shapiro-Wilk, all pretest and posttest data for both the control class and experimental class have a significance value (Sig.) greater than 0.05, namely pretest control (Sig. = 0.132), posttest control (Sig. = 0.111), pretest experimental (Sig. = 0.144), and new posttest experimental (Sig. = 0.756). This indicates that all data is normally distributed, thus meeting the normality assumption for parametric statistical analysis that will be used in the next stage.

2. Homogeneity Test

After obtaining information about the normal distribution of the data, the next step is to conduct a homogeneity test. This test is also the basis for deciding whether to accept or reject the hypothesis, using the significance value (Sig.) criteria on Levene's statistic. If the Sig. value is greater than 0.05 (Sig. > 0.05), then the data is said to be homogeneous or has the same variance. The results of the homogeneity test can be seen in the following table:

Tabel 2 Homogeneity Test

Homogeneity of Variance Test			
Levene's Test for Equality of Variances			
		F	Sig.
Value	Equal variances assumed	2.190	.143

Source: Homogeneity Test from apk SPSS

Based on the results of the Tests of Homogeneity of Variances (homogeneity test) using the Levene Test method, a significance value of 0.143 was obtained, which is greater than 0.05. This indicates that the data has homogeneous variance between groups, thus meeting the homogeneity assumption for parametric statistical analysis that will be used in the next stage.

3. Hypotesis test

To determine the difference in learning outcomes between the control class and the experimental class after treatment, an analysis was conducted using the Independent Samples t-Test. This test aims to compare the means of two unrelated (independent) groups to determine whether there is a significant difference between them. The results of the Independent Samples t-Test calculation are as follows:

Tabel 3. Uji Hipotesis

T	Df	Sig. (2-tailed)
-2.841	68	0.006

Source: result hypothesis test from apk SPSS

Based on the results of the Independent Samples t-Test on the posttest scores between the control group and the experimental group, a t-value of -2.841 was obtained with 68 degrees of freedom (df). At a significance level of 5% ($\alpha = 0.05$), the significance value obtained was $0.006 < 0.05$, thus the null hypothesis (H_0) was rejected and the alternative hypothesis (H_1) was accepted. This proves that there is a significant difference in learning outcomes between the experimental class and the control class, where the average posttest score of the experimental group is higher than that of the control group.

DISCUSSION

This research was conducted to determine the effect of using Quizizz as an evaluation medium on the learning progress of Informatics students in class X. The study involved 36 students in the experimental class and 34 students in the control class. The research design used was a quasi-experimental design, where the experimental class was taught using Quizizz as an evaluation medium, while the control class used conventional methods. The results showed that the average post-test score of the experimental class (86.81) was higher than that of the control class (79.74). The difference was statistically significant, as indicated by the Independent Samples t-Test results, which yielded a significance value of $0.006 (<0.05)$. This suggests that the use of Quizizz as an evaluation medium had a positive impact on students' learning progress.

The findings of this study are consistent with previous research that has shown that Quizizz is an effective medium for evaluation and learning. The use of Quizizz provides an interactive and engaging learning experience, which can increase student motivation and participation. The instant feedback feature also helps students to track their progress and identify areas for improvement. The results of this study also support the idea that technology-based evaluation media can be used to improve student learning outcomes. The use of Quizizz in this study provided a fun and interactive way for students to learn and evaluate their understanding of the material. Overall, the findings of this study suggest that the use of Quizizz as an evaluation medium has a positive impact on students' learning progress. The results of this study can be used by educators and researchers to inform the development of effective evaluation methods and to improve student learning outcomes.

The Effectiveness of Quizizz as an Evaluation Medium

The results of this study show that the use of Quizizz as an evaluation medium is effective in improving student learning outcomes. The experimental class that used Quizizz had a higher average post-test score than the control class. The difference was statistically significant, indicating that the use of Quizizz had a positive impact on student learning. The use of Quizizz provides an interactive and engaging learning experience, which can increase student motivation and participation. The instant feedback feature also helps students to track their progress and identify areas for improvement.

Learning Progress

The results of the Independent Samples t-Test showed that there was a significant difference in learning progress between the experimental class and the control class. The experimental class had a higher average learning progress than the control class. This suggests that the use of Quizizz as an evaluation medium had a positive impact on student learning progress. Overall, the findings of this study suggest that the use of Quizizz as an evaluation medium is effective in improving student learning outcomes and learning progress. The results of this study can be used by educators and researchers to inform the development of effective evaluation methods and to improve student learning outcomes.

CONCLUSION

Improved Learning Progress: The experimental class that used Quizizz as an evaluation medium showed higher average learning outcomes (86.81) compared to the control class (79.74). This indicates that the use of Quizizz as an evaluation medium has a positive impact on students' understanding of Informatics material. Significant Difference Between Groups: The results of the Independent Samples t-Test showed a t-value of -2.841 with 68 degrees of freedom and a significance value (Sig. 2-tailed) of 0.006 (< 0.05). Therefore, there is a significant difference in learning progress between the experimental class and the control class, with the experimental class achieving higher average scores. Thus, it can be concluded that the use of Quizizz as an evaluation medium has a positive and significant impact on improving student learning progress at SMA Negeri 1 Gunuang Omeh. This study provides empirical evidence that the use of digital-based evaluation platforms can be an effective alternative to improve the quality of learning and student engagement in the modern era.

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