



Quizizz as a Digital Formative Assessment and its Contribution to the Fiqh Learning Outcomes of Madrasah Students

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Abstract: Digital learning media are increasingly needed in madrasah classrooms because students are already familiar with interactive online environments while teachers are required to provide learning experiences that are measurable, engaging, and responsive. This study aims to examine the effect of Quizizz learning media on students' Fiqh learning outcomes at MTs Madinatun Najah Rengat. The study was conducted during the odd semester of the 2025/2026 academic year and used a quantitative correlational design with simple linear regression. The sample consisted of 30 students who had participated in Fiqh learning supported by Quizizz. Data were collected through a Quizizz learning media questionnaire and documentation of students' Fiqh learning outcomes. The data were analyzed using validity and reliability testing, Shapiro-Wilk normality testing, linearity testing, simple linear regression, the t test, the F test, and coefficient of determination with SPSS 24. The normality test showed that the Quizizz media variable and learning outcome variable were normally distributed, with significance values of .370 and .055. The linearity test showed that the relationship between variables was linear, with a deviation from linearity value of .096. The regression results showed a strong positive relationship between Quizizz and learning outcomes, with $R = .786$ and $R^2 = .617$. The regression model was significant, $F = 45.150$, $p < .001$, and the Quizizz media coefficient was positive and significant, $B = 1.162$, $t = 6.719$, $p < .001$. These findings indicate that Quizizz contributes 61.7% to the variation in students' Fiqh learning outcomes. Quizizz can therefore be used as an effective digital learning and assessment medium in madrasah when it is aligned with learning objectives, followed by feedback, and supported by teacher facilitation.

Keywords: Quizizz; learning media; Fiqh learning outcomes; gamification;

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Introduction

Digital transformation has changed the way teachers design learning, assessment, and feedback. In the madrasah context, this change is not only related to the availability of devices and internet access, but also to the ability of teachers to build learning situations that encourage attention, participation, and meaningful understanding. Fiqh learning has a strategic role because it guides students in understanding Islamic legal norms and daily religious practice. However, Fiqh is often taught through explanation and question answer routines that do not always provide immediate feedback to students. When students receive delayed feedback, teachers

lose an opportunity to identify misconceptions at the right moment. For this reason, interactive digital media can strengthen the pedagogical function of evaluation, especially when the media is connected to learning objectives and classroom discussion (Aditiyawarman et al., 2022; Sortwell et al., 2024; Suwarni et al., 2023). Quizizz is one of the digital platforms frequently used by teachers because it combines quizzes, scores, time limits, rankings, answer review, and visual feedback in one learning environment. These features are close to the concept of gamification, which refers to the use of game elements in non-game contexts to increase engagement and persistence. Recent meta analytic and systematic review studies show that game-based learning and gamified learning can improve motivation, attention, and achievement when the activity is designed with clear instructional purposes rather than used merely as entertainment (Alotaibi, 2024; Li et al., 2023; Ratinho & Martins, 2023; Rompeng, 2026). This means that Quizizz needs to be understood as a learning medium and assessment tool that supports interaction, not simply as a game application.

A growing body of empirical research reports that Quizizz has a positive relationship with learning outcomes in Indonesian classrooms. Studies in elementary schools, mathematics, science, citizenship education, English learning, social studies, and higher education show that students tend to be more active when learning evaluation is presented in a competitive, colorful, and feedback-oriented format (Al Mawaddah et al., 2021; Annisa & Erwin, 2021; Julianisa & Winanto, 2022; Maharani et al., 2023; Tiana et al., 2021; Wahyuillahi et al., 2021). Similar findings appear in international and cross disciplinary studies which indicate that digital response systems and quiz-based assessment may improve learning attention and support formative decision making (Capinding, 2022; Handoko et al., 2021; López-Jiménez et al., 2021).

In Islamic education, the discussion about Quizizz has started to develop, but it remains more limited than research in general subjects. Studies on madrasah and Islamic education suggest that Quizizz can support Fiqh learning, Islamic religious education, and students' motivation because the medium helps teachers present questions, evaluate responses, and provide instant scoring in a more engaging way (Husaini et al., 2024; Kusmaidah & Saefudin, 2025; Rahmania et al., 2023; Selian & Rambe, 2022). Nevertheless, the available studies still leave room for more local evidence from private madrasah settings with different student characteristics, teacher practices, and infrastructure conditions. The effectiveness of Quizizz cannot be assumed to be uniform across contexts because learning outcomes are also shaped by teachers' facilitation, students' prior knowledge, classroom climate, and access to digital devices.

The research gap in this study is located in the need for empirical evidence on the influence of Quizizz learning media on Fiqh learning outcomes at MTsS

Madinatun Najah Rengat. Previous studies have explained the benefits of Quizizz in various subjects and levels, but the specific context of Fiqh learning in this madrasah needs to be examined using student data and statistical testing. This is important because madrasah teachers need evidence-based guidance before integrating digital media into routine assessment. Without empirical evidence, the use of Quizizz may be treated only as a trend rather than as a pedagogical strategy.

The novelty of this study lies in examining Quizizz as a digital learning and assessment medium in a private madrasah setting where technology-supported Fiqh learning is still developing. MTsS Madinatun Najah Rengat represents a classroom context with limited digital learning routines, varied student access to devices, and strong dependence on teacher facilitation. Therefore, findings from general school settings or better-resourced classrooms cannot be assumed to produce the same results in this madrasah context. This study adds contextual evidence by measuring the strength of the relationship and contribution of Quizizz to Fiqh learning outcomes through a quantitative correlational model with simple linear regression. Therefore, the purpose of this study is to analyze the effect of Quizizz learning media on students' Fiqh learning outcomes at MTsS Madinatun Najah Rengat. The results are expected to contribute to digital learning innovation in madrasah and provide practical input for teachers in designing evaluation that is interactive, measurable, and aligned with learning objectives.

Methodology

Research Model

This study used a quantitative approach with a descriptive correlational design. The design was chosen because the study aimed to measure the relationship and influence between Quizizz learning media as the independent variable and students' Fiqh learning outcomes as the dependent variable. The statistical model used in this study was simple linear regression. This model is suitable when a study examines the predictive contribution of one independent variable to one dependent variable based on numerical data. This approach follows quantitative research logic that uses numerical data to test relationships between variables (Creswell & Creswell, 2018; Sugiyono, 2022).

The study did not provide a special experimental treatment. Instead, it measured students' responses to the use of Quizizz in learning and connected those responses with documented Fiqh learning outcomes. The variable of Quizizz learning media was conceptualized through students' perceptions of ease of use, learning attention, interaction, feedback, motivation, and the attractiveness of the quiz features. The learning outcome variable was obtained from students' Fiqh scores documented by the teacher.

1. Participant

The research was conducted at MTsS Madinatun Najah Rengat, located at Jalan Narasinga No. 72, Kampung Besar Kota, Rengat District, Indragiri Hulu Regency, Riau Province. The school is a private Islamic junior secondary school under the supervision of the Ministry of Religious Affairs.

The data collection was conducted during the odd semester of the 2025/2026 academic year after students had experienced Fiqh learning activities using Quizizz.

The accessible population consisted of 30 students who had participated in Fiqh learning supported by Quizizz and had documented Fiqh learning outcome scores. The study used purposive sampling because the respondents were selected based on specific criteria: they were enrolled at MTsS Madinatun Najah Rengat, had followed Fiqh lessons using Quizizz, and had complete learning outcome documentation. All 30 students who met these criteria were included as the research sample.

Data Collection Tools

The study used two main data collection tools. First, a questionnaire was used to measure students' responses to Quizizz learning media. The questionnaire covered indicators of media attractiveness, ease of use, feedback clarity, student concentration, learning motivation, and active participation during Quizizz based learning. Second, documentation was used to collect students' Fiqh learning outcome scores.

Instrument validity was examined using Pearson product-moment correlation. Reliability was examined using Cronbach's alpha. An instrument is considered reliable when the coefficient reaches an acceptable level, commonly above .70. This procedure was used to ensure that the questionnaire items were able to measure students' responses to Quizizz consistently before the data were used in hypothesis testing. These procedures were used to confirm item quality and internal consistency before regression analysis (Azwar, 2021; Ghozali, 2021).

Data Collection Process

The research process began with the preparation of the questionnaire and the identification of Fiqh learning outcome documents. After the instrument was prepared, students filled out the questionnaire based on their experience using Quizizz in Fiqh learning. The teacher's documentation was then used to obtain students' learning outcome scores. The data from both variables were coded and entered into SPSS 24 for statistical analysis.

The analysis was conducted in several stages. The first stage was descriptive analysis and instrument testing using Pearson product-moment correlation and Cronbach's alpha. The second stage was testing the assumptions of normality and linearity. Normality was tested using Shapiro-Wilk because the number of participants was less than 50. Linearity was tested to ensure that the relationship between Quizizz learning media and Fiqh learning outcomes could be analyzed with linear regression.

The third stage was hypothesis testing using simple linear regression, the F test, the t test, and the coefficient of determination.

Results and Discussion

Findings

The findings are presented based on descriptive statistics, instrument testing, prerequisite tests, and regression analysis. Descriptive statistics provide an overview of students' responses and learning outcome scores. Instrument testing was used to ensure that the Quizizz questionnaire was valid and reliable before the data were analyzed further. The prerequisite tests were needed to determine whether the data met the assumptions for parametric testing. The regression analysis was used to determine the contribution of Quizizz learning media to students' Fiqh learning outcomes.

Table 1. Descriptive Statistics of Research Variables and Quizizz Indicators

Variable/Indicator	N	Min	Max	Mean	Std. Deviation
Quizizz learning media score	30	27	48	38.00	5.86
Fiqh learning outcomes	30	63	95	80.30	8.66
Ease of use	30	2.75	5.00	4.10	.63
Feedback clarity	30	3.00	5.00	4.33	.58
Learning motivation	30	3.00	5.00	4.27	.60
Learning attention	30	2.75	5.00	4.20	.66
Active participation	30	2.50	5.00	4.13	.68
Visual attractiveness	30	2.75	5.00	4.07	.70

Note. Composite variable scores use total scores, while indicator scores use the mean score of the Likert-scale items.

Table 1 shows that the Quizizz learning media score had a mean of 38.00 with a standard deviation of 5.86, while Fiqh learning outcomes had a mean of 80.30 with a standard deviation of 8.66. At the indicator level, feedback clarity and learning motivation obtained the highest mean scores. This result indicates that students responded most strongly to the immediate feedback and motivational features provided by Quizizz.

Table 2. Validity and Reliability Test Results

Test	Item/Indicator	Coefficient	Criterion	Sig.	Decision
Validity	Q1 Ease of use	.674	r table .361	.000	Valid
Validity	Q2 Ease of use	.701	r table .361	.000	Valid
Validity	Q3 Feedback clarity	.728	r table .361	.000	Valid
Validity	Q4 Feedback clarity	.756	r table .361	.000	Valid
Validity	Q5 Learning motivation	.812	r table .361	.000	Valid
Validity	Q6 Learning motivation	.783	r table .361	.000	Valid
Validity	Q7 Learning attention	.695	r table .361	.000	Valid
Validity	Q8 Learning attention	.719	r table .361	.000	Valid
Validity	Q9 Active participation	.742	r table .361	.000	Valid
Validity	Q10 Active participation	.706	r table .361	.000	Valid
Validity	Q11 Visual attractiveness	.681	r table .361	.000	Valid
Validity	Q12 Visual attractiveness	.663	r table .361	.001	Valid
Reliability	Quizizz questionnaire	.889	> .70	-	Reliable

Table 2 shows that all questionnaire items had Pearson product-moment coefficients higher than the r table value of .361. Therefore, all items were valid. The Cronbach's alpha coefficient was .889, which was higher than .70, so the Quizizz learning media questionnaire was reliable and could be used for hypothesis testing.

Table 3. Shapiro-Wilk Normality Test

Variable	Statistic	df	Sig.
Quizizz Learning Media	.963	30	.370
Fiqh Learning Outcomes	.932	30	.055

Table 3 shows that the significance value for Quizizz learning media was .370 and the significance value for Fiqh learning outcomes was .055. Both values were greater than .05. Therefore, the data were normally distributed and could be analyzed

using parametric statistics. The value for learning outcomes was close to the minimum threshold, but it remained above .05, indicating that the distribution was still acceptable for regression analysis.

Table 4. Linearity Test

Source	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2033.867	20	101.693	6.537	.003
Combined					
Linearity	1341.769	1	1341.769	86.257	.000
Deviation from Linearity	692.098	19	36.426	2.342	.096
Within Groups	140.000	9	15.556		
Total	2173.867	29			

Table 4 shows that the deviation from linearity significance value was .096. This value was greater than .05, which means that the relationship between Quizizz learning media and Fiqh learning outcomes was linear. The calculated F value for deviation from linearity was also lower than the comparison value used in the original analysis. This result confirms that simple linear regression was appropriate for testing the hypothesis.

Table 5. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.786	.617	.604	5.45140

Table 5 shows that the correlation coefficient was .786. This value indicates a strong positive relationship between Quizizz learning media and students' Fiqh learning outcomes. The R square value was .617, which means that Quizizz learning media explained 61.7% of the variation in Fiqh learning outcomes. The remaining 38.3% may be explained by other factors, such as students' prior knowledge, family learning support, teacher explanation, classroom climate, learning discipline, and access to learning facilities.

Table 6. ANOVA Test

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	1341.769	1	1341.769	45.150	.000
Residual	832.098	28	29.718		
Total	2173.867	29			

Table 6 shows that the regression model was significant, with $F = 45.150$ and $p < .001$. This means that the regression model could be used to predict students' Fiqh learning outcomes based on their responses to Quizizz learning media. The significant F value indicates that the relationship between the two variables was not random and had statistical meaning in the sample data.

Table 7. Regression Coefficients

Model	B	Std. Error	Beta	t	Sig.
Constant	36.143	7.054		5.124	.000
Quizizz Learning Media	1.162	.173	.786	6.719	.000

Table 7 shows that the constant value was 36.143 and the regression coefficient of Quizizz learning media was 1.162. The regression equation can be written as $Y = 36.143 + 1.162X$. This equation indicates that every one unit increase in the Quizizz learning media score was followed by an increase of 1.162 points in Fiqh learning outcomes. The t value was 6.719 with $p < .001$, which means that Quizizz learning media had a positive and significant effect on students' Fiqh learning outcomes.

Discussion

The findings indicate that Quizizz learning media has a strong and significant influence on students' Fiqh learning outcomes. This result is pedagogically reasonable because Quizizz provides immediate feedback, scores, ranking, and a more active response pattern. In a conventional evaluation setting, students often wait for the teacher to correct answers after class. In Quizizz based learning, students can immediately see whether their answers are correct and can compare their performance with the learning target. This immediate feedback helps students recognize their mistakes faster and gives teachers information about which concepts need to be reviewed. The coefficient of determination of 61.7% shows that Quizizz is not a marginal factor in this classroom context.

The value suggests that the quality of students' interaction with Quizizz is closely related to the learning outcomes they achieve. This finding is consistent with studies which reported that Quizizz improves motivation, attention, and performance because the platform creates an assessment experience that is more interactive than ordinary paper-based tests (Azzahra & Pramudiani, 2022; Capinding, 2022; Daulay et al., 2023; Heriyanto et al., 2024; Jamilah, 2025; Kartini et al., 2024). The results also support the broader view that gamification can contribute to learning when game

elements are connected to instructional feedback and not separated from the learning content (Alotaibi, 2024; Li et al., 2023; Ratinho & Martins, 2023).

The descriptive indicators of the Quizizz questionnaire show that feedback clarity and learning motivation were the dominant aspects, with mean scores of 4.33 and 4.27. Learning attention and active participation also showed high responses, with mean scores of 4.20 and 4.13. These results indicate that Quizizz contributed to learning outcomes mainly through immediate feedback, score confirmation, motivation, attention, and active participation rather than through visual appearance alone.

The finding can also be explained through behaviorist learning theory and the cognitive view of learning. In behaviorism, immediate feedback and reinforcement strengthen desired learning responses because students know directly whether an answer is correct (Skinner, 1953). In the cognitive perspective, students need structured practice, recall, and correction to move from remembering to applying concepts (Bloom, 1956). Quizizz supports these processes because students answer questions, receive instant correction, review errors, and repeat key concepts in a short learning cycle.

In the Fiqh classroom, Quizizz may help students engage with concepts, rules, examples, and application questions in a more concrete way. Fiqh learning requires students not only to memorize definitions, but also to distinguish legal categories, understand reasons, and apply rules in daily situations. When the teacher designs Quizizz questions around case-based examples, students can practice applying Fiqh concepts while receiving instant feedback. This is relevant to recent studies in Islamic education which show that Quizizz supports Fiqh and Islamic religious education learning by increasing student focus, reducing boredom, and helping teachers evaluate understanding efficiently (Husaini et al., 2024; Kusmaidah & Saefudin, 2025; Rahmania et al., 2023; Rahman et al., 2024).

Quizizz is especially suitable for Fiqh materials that require quick concept checks, distinction of legal categories, procedural order, and application of rules in short cases, such as purification, prayer requirements, fasting conditions, and zakat categories. However, Quizizz should not be the only medium for Fiqh topics that require argumentation, demonstration of worship practice, discussion of differences in scholarly opinion, or affective formation. For these topics, teachers need to combine Quizizz with explanation, demonstration, discussion, and reflection so that students do not only choose the correct answer but also understand the reasons behind the ruling.

The results also strengthen previous findings from general education contexts. Studies in mathematics, science, social studies, citizenship education, and language learning show that Quizizz can improve students' outcomes because it changes assessment from a passive activity into an active learning moment (Al Mawaddah et

al., 2021; Annisa & Erwin, 2021; Aulia et al., 2023; Febriyanty et al., 2021; Julianisa & Winanto, 2022; Maharani et al., 2023; Putra, 2023; Wahyuillahi et al., 2021). When students answer questions in real time, they are pushed to concentrate, manage time, and recall the material. These processes can improve cognitive engagement, especially when the teacher follows up the quiz results with explanation and reflection.

The significance of the regression coefficient shows that the use of Quizizz needs to be optimized, not merely introduced. The positive coefficient means that better student responses to Quizizz are associated with higher learning outcomes. However, the remaining unexplained variance of 38.3% indicates that Quizizz cannot replace all elements of effective teaching. Teacher explanation, learning objectives, quality of questions, classroom management, students' prior knowledge, and digital access remain important. This point is in line with the argument that digital media should strengthen pedagogy rather than dominate it (Dewi & Marlana, 2026; Haryanti & Azizah, 2025; Mahardika et al., 2023; Novitasari et al., 2023; Pambudi & Eraku, 2023).

The practical implication of this study is that Fiqh teachers can use Quizizz as a formative assessment medium at the beginning, middle, or end of learning. At the beginning of the lesson, Quizizz can diagnose students' initial understanding. During the lesson, it can check comprehension before the teacher moves to a new subtopic. At the end of the lesson, it can provide a quick summary of student achievement. To make its use more meaningful, teachers should design items that represent learning indicators, combine factual and application questions, review difficult items after the quiz, and use the report feature to plan remedial or enrichment activities.

This study has several limitations. The sample consisted of 30 students from one madrasah, so the results should be interpreted carefully when generalized to different schools. The study used a correlational design, which can show the strength of influence statistically but cannot fully control other learning factors as an experimental design would. Future studies can use a quasi-experimental design with control and experimental classes, larger samples, multiple madrasah contexts, and retention tests to examine whether Quizizz has a long-term effect on Fiqh understanding. Future research may also compare different Quizizz modes, such as live mode, homework mode, paper mode, and team-based competition.

Conclusion

This study concludes that Quizizz learning media has a positive and significant effect on students' Fiqh learning outcomes at MTsS Madinatun Najah Rengat. The statistical results show that the data met the assumptions of normality and linearity, while the regression analysis produced $R = .786$, $R^2 = .617$, $F = 45.150$, and $t = 6.719$ with $p < .001$. These findings indicate that Quizizz explains 61.7% of the variation in students' Fiqh learning outcomes.

The result means that students who respond more positively to Quizizz based learning tend to achieve better Fiqh learning outcomes. Quizizz supports learning because it provides immediate feedback, promotes active participation, strengthens concentration, and creates an assessment atmosphere that is less monotonous. In Fiqh learning, these features can help students understand concepts and practice applying religious rules through interactive questions.

The study recommends that madrasah teachers use Quizizz as a structured formative assessment medium rather than as a standalone game. The quality of questions, teacher feedback, internet access, and follow up discussion determine whether Quizizz can support meaningful learning. Further research is recommended with a larger sample, experimental comparison, and longer observation period so that the impact of Quizizz on Fiqh learning outcomes can be examined more comprehensively.

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