



The Influence of Digital Learning Media Quizizz Application on Student Learning Motivation in Science Learning at SDN 3 Mangkalaya, Sukabumi Regency

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ABSTRACT

This study aims to analyze the effect of using the Quizizz application on students' learning motivation in elementary school integrated science and social studies (IPAS) learning. This research employed a quantitative approach with a descriptive-verification design. The population consisted of all upper-grade students at SD Negeri 3 Mangkalaya, Sukabumi regency, in the 2025/2026 academic year, totaling 159 students, with a sample of 20 students selected proportionally. Data were collected using Likert-scale questionnaires and observation, and analyzed through descriptive and inferential statistics, including simple linear regression and t-test. The results indicate that the use of Quizizz has a positive and significant effect on students' learning motivation, with a correlation coefficient of 0.892 and a contribution of 79.6%. In addition, Quizizz also positively influences students' perseverance (79.5%), activeness (67.0%), and engagement (62.0%) in learning activities. These findings suggest that gamification-based digital learning media effectively enhance students' overall learning motivation. In conclusion, Quizizz can be utilized as an effective and innovative instructional strategy to improve students' learning motivation in elementary education. This study implies that the integration of digital technology in learning should be continuously developed to create more interactive, engaging, and student-centered learning environments.

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INTRODUCTION

Education is a strategic process in forming the quality of human resources that are adaptive to developments in the times (Arifuddin, 2019). Education not only functions as a means of transferring knowledge, but also as a process of developing students' potential holistically, encompassing cognitive, affective, and psychomotor aspects (A. Rahman et al., 2022). Therefore, education is required to produce individuals who are not only academically intelligent but also possess character and the ability to adapt to global change.

This aligns with Law of the Republic of Indonesia Number 20 of 2003 concerning the National education system, which emphasizes that education aims to develop the holistic potential of students. This goal is implemented through the Indonesian Independent Curriculum policy, which emphasizes student-centered learning and character building (Saleh et al., 2025). This curriculum provides space for teachers to innovate in creating active, contextual, and meaningful learning.

However, the implementation of learning in the field still faces various challenges. Elementary school learning is still dominated by one-way lecture methods, which tend to make students passive (A'yun et al., 2025). The use of less varied learning media also causes the learning atmosphere to become monotonous, which has implications for low student learning motivation (Kusumawati & Maruti, 2019).

This problem was also found at SD Negeri 3 Mangkalaya, Sukabumi Regency. Based on initial observations, science learning is still dominated by conventional methods with limited media use. Students tend to be less active, easily bored, and do not demonstrate optimal engagement in learning. This indicates that student motivation is still low and needs to be improved.

Learning motivation is an important factor in determining learning success (Habsy et al., 2024). Motivation functions as the main driver that influences student activity, persistence, and involvement (Manik et al., 2024). Without adequate motivation, the learning process will not be effective. Therefore, learning innovations are needed that can optimally increase learning motivation (Ahmad et al., 2024; M. Rahman & Ahmad, 2016).

One way to do this is through the use of digital learning media. Digital learning media acts as an intermediary capable of increasing student interest and attention (Sadriani et al., 2023). In the context of technological development, digital learning media is a relevant alternative because it is able to integrate visual, audio, and interactive elements (Suhenda et al., 2024). Thus, the use of technology-based media can create more interesting and meaningful learning (Ahmad et al., 2022).

One of the digital learning media that is growing is Quizizz which integrates gamification elements into learning (Mislia et al., 2025). Using Quizizz allows students to learn in a fun, interactive, and competitive atmosphere (Dinda Salma & Mastoah, 2025), several studies have shown that Quizizz is effective in increasing student motivation and learning engagement



(Jong & Tacoh, 2024), showed that the use of Quizizz in elementary school learning was able to significantly increase motivation and learning outcomes. A similar finding was also found by (Astari, 2023), which states that Quizizz has a positive influence on students' learning motivation.

In addition, research (Hayati et al., 2025), shows that the use of Quizizz in social studies/natural sciences learning in elementary schools can increase activity and create a more interactive learning atmosphere. Research by (Sufiyati & Novianto, 2021), also demonstrated that Quizizz is effective in increasing learning interest through a gamification approach. However, most of this research still focuses on general learning motivation or learning outcomes, and is dominated by qualitative approaches.

Based on this study, there is a research gap, that is, there is not much research that specifically examines students' intrinsic motivation in depth, particularly aspects of persistence, activeness, and engagement. Furthermore, research in the context of Independent Curriculum-based science and science learning in elementary schools is still limited. Yet, intrinsic motivation is key to creating meaningful and sustainable learning (Amirah et al., 2025).

Therefore, this study offers novelty by focusing on the analysis of students' intrinsic motivation as measured by indicators of persistence, activeness, and involvement. This research was conducted on science learning at SD Negeri 3 Mangkalaya using a quantitative descriptive-verification approach. Thus, this study aims to analyze the effect of using the digital learning media Quizizz on students' learning motivation. The results of the study are expected to contribute to the development of more effective and contextual technology-based learning.

Based on these objectives, the hypothesis is proposed that the use of the digital learning media Quizizz significantly influences students' learning motivation. This influence is not only seen generally, but also specifically in the aspects of student persistence, activeness, and engagement in the learning process. Therefore, the more optimal the use of Quizizz in learning, the higher the level of intrinsic motivation of students, as demonstrated by increased persistence, activeness, and engagement in learning activities.

RESEARCH METHODS

This research uses a quantitative approach with a descriptive-verifiable approach, aiming to determine the effect of digital learning media use on student learning motivation. This approach was chosen because it provides an empirical overview and tests the relationships between variables objectively and measurably (Sulistyawati, 2023). The research design used a correlational approach. The research was conducted at SD Negeri 3 Mangkalaya, Sukabumi regency, with fifth-grade students in the 2025/2026 academic year as the subjects.

The population in this study was all upper-class students, totaling 159 people. The sample was determined based on the opinion of the (Arikunto, 2013), which is 10–25% of the population. In this study, 12.6% was taken, resulting in approximately 20 respondents considered representative of the population. The research variables consist of the independent variable, namely the Quizizz app, and the dependent variable, namely student learning motivation. Learning motivation is measured using several indicators, namely student persistence, activeness, and involvement in the learning process.

The data collection technique used a questionnaire with a four-level Likert scale: strongly agree, agree, disagree, and strongly disagree. Observations were also conducted as supporting data. The research instrument was tested for validity using product moment correlation and reliability using Cronbach's alpha to ensure its suitability for use.

Data analysis techniques used were descriptive and inferential analysis. Descriptive analysis was used to describe students' levels of learning motivation, while inferential analysis was used to test the research hypotheses using simple linear regression and *t-tests*. All analyses were conducted using statistical software.

RESULTS AND DISCUSSION

RESEARCH RESULT

Instrument Validity Test Results

Instrument validity testing was carried out using the technique *pearson product moment correlation*, namely by comparing the calculated *r-value* with the *r-table*. Based on the number of respondents as many as 20 people, the *r-table* value was obtained at 0.444 at a significance level of 5% ($\alpha = 0.05$) with degrees of freedom ($df = n - 2$). A statement item is declared valid if the calculated *r-value* > *r-table* (0.444). Based on the results of the validity test, it is known that in the digital learning media variable consisting of 35 statement items, there are 33 items that are declared valid because they have a calculated *r-value* greater than 0.444. Meanwhile, 2 items are declared invalid, namely MP25 ($r = 0.313$) and MP34 ($r = 0.366$) because the calculated *r-value* is smaller than the *r-table*. Furthermore, in the learning motivation variable consisting of 21 statement items, there are 19 items that are declared valid because the calculated *r-value* is greater than 0.444. There were 2 items that were declared invalid, namely MB11 ($r = 0.227$) and MB20 ($r = 0.265$) because the calculated *r-value* was smaller than the *r-table*.

Instrument Reliability Test Results

Reliability testing aims to determine the level of consistency or stability of research instruments. In this study, reliability testing was conducted using the *Cronbach's alpha*. A variable is declared reliable if it has a value of *Cronbach's alpha* greater than 0.70. The results of the instrument reliability test can be seen in Table 1.

Table 1. Reliability Test Results

Variables	Cronbach's alpha	Critical Point	Information
Digital Learning Media	0.922	0.7	Reliable
Motivation to learn	0.890	0.7	Reliable

Based on Table 1, it is known that the value of *Cronbach's alpha* for the digital learning media variable was 0.922, while the value for the learning motivation variable was 0.890. Both values exceed the minimum reliability limit of 0.70. Therefore, it can be concluded that both instruments have excellent reliability.

Descriptive Analysis of Digital Learning Media Variables Quizizz Application

The variables of the digital learning media Quizizz app in this study were measured through five main indicators that reflect the gamification features and student engagement during science learning, namely the point system, leaderboard, challenges, display aesthetics, and student engagement. These five indicators were chosen because they are the main characteristics of digital-based learning media that are interactive and can influence the learning motivation of elementary school students. The variable measurement was carried out using a Likert scale to determine students' perceptions of the use of the Quizizz app as a digital learning media in science subjects at SDN 3 Mangkalaya, Sukabumi regency.

Based on the calculation of the point system indicator, the total mean was 3.593 with a standard deviation of 1.045, which is in the high category. This indicates that the point-awarding system in the Quizizz app can increase students' enthusiasm for learning, as they feel their learning efforts are appreciated and are motivated to earn more points when taking the science quizzes.

The leaderboard indicator yielded a total mean of 3.729 with a standard deviation of 0.830, which is considered high. These results indicate that the leaderboard in Quizizz encourages students to learn better and increases their motivation without disrupting their peers during the learning process. The challenge indicator had a total mean of 3.793 with a standard deviation of 0.782, also in the high category. This indicates that challenge-based questions on Quizizz can foster curiosity, perseverance, and a tenacity in solving science learning problems.

Furthermore, the aesthetics indicator obtained a total mean of 3.636 with a standard deviation of 0.798. Quizizz's colorful, attractive, and interactive display makes students more focused, comfortable, and enjoy the science learning process, making the learning atmosphere more enjoyable compared to conventional learning.

The student engagement indicator achieved a total mean of 3.550 with a standard deviation of 0.692, indicating a high category. This indicates that using the Quizizz app can increase student activeness in taking quizzes, paying attention to the material, and participating during the science learning process.

Overall, the description of the digital learning media variable Quizizz app shows an average that is in the high category for each indicator. Thus, it can be concluded that the use of the Quizizz app as a digital learning medium in science learning can create interactive, interesting learning and encourage active student involvement, which ultimately has the potential to increase student learning motivation at SDN 3 Mangkalaya, Sukabumi regency.

Descriptive Analysis of Learning Motivation Variables

The learning motivation variable in this study was measured through three main indicators: communication, cooperation, and empathy, which reflect students' internal drive and social engagement during the science learning process using the Quizizz app. Learning motivation in the context of this study is not only seen from individual learning enthusiasm, but also from students' active interaction, cooperation, and concern for their peers during the learning activities. Learning motivation was measured using a Likert scale.

Based on calculations, the communication indicator obtained a total mean of 3.643 with a standard deviation of 0.796, which is in the high category. This indicates that students are able to communicate well with their friends, dare to ask questions, and listen to their friends' opinions during the science learning process using Quizizz app. Although some students still feel hesitant to speak, in general, the use of interactive digital media can increase students' courage and communication participation.

The cooperation indicator yielded a total mean of 3.771 with a standard deviation of 0.817, which is considered high. These results indicate that students are highly motivated to collaborate, help each other, share tasks, and respect each other's opinions during learning activities. The use of Quizizz app as a digital learning tool fosters a collaborative and enjoyable learning environment, enabling students to participate more actively in groups.

Furthermore, the empathy indicator achieved a total mean of 3.607 with a standard deviation of 0.935, also in the high category. This indicates that students care about their peers, are able to understand their feelings, and are open to differing opinions during science lessons. The interactions that occur during Quizizz also support the development of mutual respect and caring among students.

Overall, the description of the learning motivation variables shows that students' learning motivation levels are high for each indicator. This indicates that the use of the Quizizz app in science learning can increase students' enthusiasm for learning, activeness, cooperation, and social engagement during the learning process at SDN 3 Mangkalaya, Sukabumi regency.

Simple Linear Regression Analysis

A simple linear regression analysis was conducted to determine the effect of digital learning media in the form of the Quizizz app on student learning motivation in science learning at SDN 3 Mangkalaya, Sukabumi regency. In this study, the Quizizz app acts as the

independent variable (X), while student learning motivation is the dependent variable (Y) which is measured through indicators of perseverance, activeness, and involvement.

1. Classical Assumption Test

Measurement model assessment done by testing *convergent validity*, *discriminant validity*, and *composite reliability*.

a. Normality Testing

Normality testing is conducted to determine whether the data in the research variables are normally distributed or not before conducting hypothesis testing. Data normality testing is conducted using the t test. *Kolmogorov-Smirnov* with the help of a statistical program. The decision-making criteria for the normality test are: if the significance value (*p-value*) is > 0.05 , the data is normally distributed; if the significance value (*p-value*) is < 0.05 , the data is not normally distributed. The results of the data normality test are presented in Table 2.

Table 2. Normality Test Results

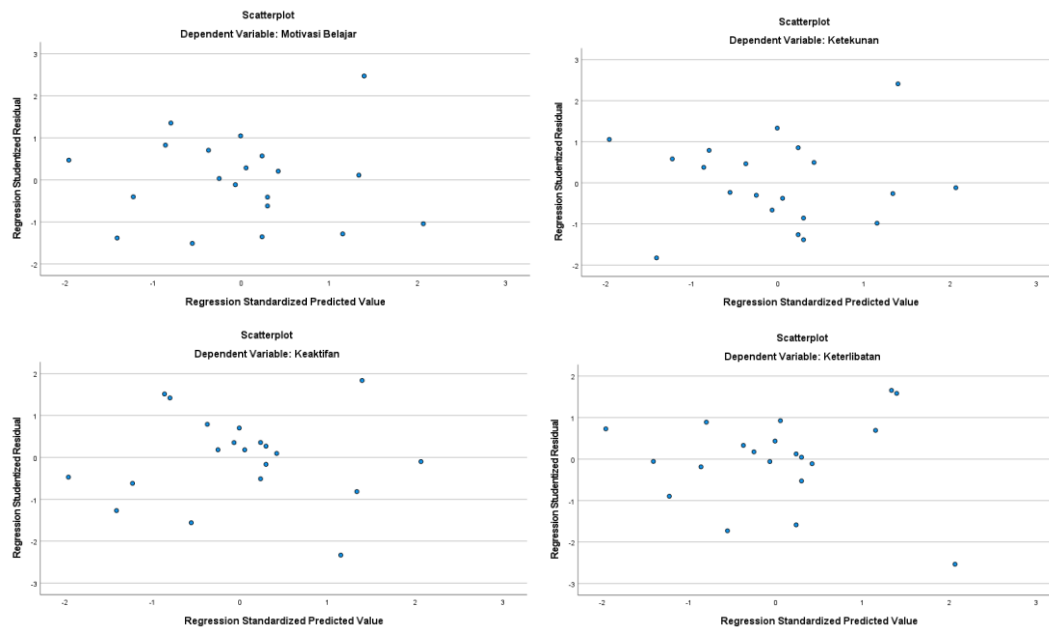
Model	<i>Kolmogorov-Smornov</i>	<i>P-Value</i>
Model 1 - Learning Motivation	0.092	0.200
Model 2 - Perseverance	0.095	0.200
Model 3 – Activeness	0.111	0.200
Model 4 - Engagement	0.177	0.099

Based on Table 2, the significance value (*p-value*) for all models is greater than 0.05, namely 0.200 for the learning motivation model, 0.200 for persistence, 0.200 for activeness, and 0.099 for engagement. This indicates that the data for each research variable is normally distributed.

b. Heteroscedasticity Testing

Heteroscedasticity testing was conducted to determine whether there was inequality in residual variance in the regression model in the study. Heteroscedasticity testing in this study was conducted using the method *Scatterplot*, namely by looking at the distribution pattern of points between the residual value (*Z-resid*) and the predicted value (*Z-pred*). The decision-making criteria for the heteroscedasticity test are as follows:

- If the points are spread randomly and do not form a particular pattern, then heteroscedasticity does not occur.
- If the points form a certain pattern (for example wavy, widening, or narrowing), then heteroscedasticity occurs.


 Figure 1. Test Results Heteroscedasticity (*Scatterplot*)

Based on Figure 1, the points on the scatterplot graph are randomly distributed above and below the number 0, on the Y-axis and do not form a clear pattern. The random distribution of the points indicates that the residual variance is constant. Therefore, it can be concluded that there are no symptoms of heteroscedasticity in the regression model in this study.

2. Correlation Coefficient

A correlation analysis was conducted to determine the strength of the relationship between Quizizz use and aspects of learning motivation, including student persistence, activeness, and engagement during the learning process. The correlation coefficient (r) ranges from 0 to 1. The closer to 1, the stronger the relationship between the variables, while values closer to 0 indicate a weaker relationship. The results of the correlation coefficient analysis are presented in Table 3.

Table 3. Correlation Coefficient

Independent Variable	Dependent Variable	Coefficient Correlation (r)
Quizizz application	Motivation to learn	0.892
	Perseverance	0.892
	Activity	0.818
	Involvement	0.788

1) Correlation between Quizizz Application and Learning Motivation

The correlation coefficient (r) of 0.892 indicates a very strong relationship between the use of the Quizizz app and student learning motivation in science learning. This means that the better and more engaging Quizizz is in the learning

process, the higher the student's learning motivation. Interactive features, a quiz system, and a fun learning environment can encourage enthusiasm for learning and increase student interest in science learning.

2) Correlation between Quizizz Application and Perseverance

The correlation coefficient (r) of 0.892 is considered very strong. This indicates that Quizizz usage is strongly associated with student persistence in learning. Students tend to be more persistent in working on questions, don't give up easily, and strive to complete quizzes to completion due to the challenge and immediate feedback provided by the Quizizz app during science lessons.

3) Correlation between Quizizz Application and Student Activity

The correlation coefficient (r) of 0.818 indicates a strong relationship between Quizizz use and student engagement. This indicates that the digital learning platform Quizizz can increase student participation, such as answering questions more frequently, paying attention to the material, and engaging directly in science learning activities compared to conventional learning.

4) Correlation between Quizizz Application and Engagement

The correlation coefficient (r) of 0.788 is in the strong category, indicating that Quizizz app usage has a strong relationship with student engagement in learning. Students become more focused, enthusiastic, and emotionally and cognitively engaged during the science learning process. Thus, the use of Quizizz digital learning media can create a more interactive learning environment and increase overall student engagement.

3. Coefficient of Determination

The coefficient of determination is used to determine the extent to which the independent variable, namely the digital learning media Quizizz app, is able to explain the variation in the dependent variable, namely student learning motivation in learning. The coefficient of determination value is indicated by the value *R-square* (R^2) and *adjusted R-square*. The results of the coefficient of determination are presented in Table 4.

Table 4. Coefficient of Determination

	<i>R-square</i>	<i>R-square Adjusted</i>
Model 1 - Learning Motivation	0.796	0.785
Model 2 – Perseverance	0.795	0.784
Model 3 – Activeness	0.670	0.651
Model 4 – Engagement	0.620	0.599

Based on Table 4, the *R-square* value in Model 1 (learning motivation) of 0.786 shows that 78.6% of the variation in students' learning motivation can be explained by the use of the digital learning media Quizizz app, while the remaining 21.4% is influenced by other factors

outside the research, such as the learning environment, teacher teaching methods, and individual student characteristics.

In Model 2 (persistence), the *R-square* value was 0.795, meaning 79.5% of the variation in student persistence can be explained by Quizizz app usage. This indicates that interactive digital learning media can encourage students to be more diligent in completing assignments and participating in science lessons.

Furthermore, in Model 3 (activity), the *R-square* value obtained was 0.670, which shows that 67.0% of the variation in student activity in learning can be explained by the use of Quizizz, while 33.0% is influenced by other factors outside the research model.

In Model 4 (engagement), the *R-square* value is 0.620, which means that 62.0% of the variation in student engagement can be explained by the use of the digital learning media Quizizz app, while the remaining 38.0% is influenced by other variables not studied.

Mark *Adjusted R-square* the results of each model that were not significantly different from the *R-square* value indicated that the regression model used in this study had a good level of stability. Thus, it can be concluded that the digital learning media Quizizz app has a significant contribution in explaining variations in student learning motivation, persistence, activeness, and involvement in science learning at SDN 3 Mangkalaya, Sukabumi regency.

4. Regression Coefficient

Regression coefficient analysis was used to determine the magnitude of the influence of the independent variable, namely the digital learning media Quizizz app, on the dependent variable, namely student learning motivation in science learning at SDN 3 Mangkalaya, Sukabumi regency. The regression analysis in this study includes the standard coefficient value (β), *t-value*, and *p-value*, which are used to see the direction, strength, and significance of the influence of the independent variable on the dependent variable. The results of the regression analysis are presented in Table 5.

Table 5. Regression Coefficient

Dependent Variable	Independent Variable	Standardized coefficients (β)	T value	P value
Motivation to learn	(constant)	0.234	0.565	0.579
	Digital learning media	0.940	8.381	0.000
Perseverance	(constant)	-0.508	-1.014	0.324
	Digital learning media	1.134	8.354	0.000
Activity	(constant)	0.102	0.167	0.869
	Digital learning media	1.002	6.043	0.000
Involvement	(constant)	1.107	2.384	0.028
	Digital learning media	0.683	5.425	0.000

Based on Table 5, it can be interpreted as follows:

1) The Influence of the Quizizz Application on Learning Motivation

The regression coefficient value (β) of 0.940 with a *t-value* of 8.381 and a *p-value* of 0.000 (<0.05) indicates that the digital learning media Quizizz app has a positive and significant effect on student learning motivation. This means that the better the use of Quizizz in science learning, the higher the student learning motivation.

2) The Influence of the Quizizz Application on Perseverance

The regression coefficient value (β) of 1.134, with a *t-value* of 8.354 and a *p-value* of 0.000 (<0.05), indicates that the Quizizz app has a positive and significant effect on student persistence. This means that using Quizizz app can encourage students to be more diligent in working on problems and participating in science learning activities until completion.

3) The Influence of the Quizizz Application on Student Activity

The regression coefficient (β) value of 1.002 with a *t-value* of 6.043 and a *p-value* of 0.000 (<0.05) indicates that the Quizizz app has a positive and significant effect on student activeness. This indicates that the use of Quizizz app can increase student active participation in answering quizzes, paying attention to the material, and being involved in the science learning process.

4) The Influence of the Quizizz Application on Engagement

The regression coefficient (β) value of 0.683 with a *t-value* of 5.425 and a *p-value* of 0.000 (<0.05) indicates that the Quizizz app has a positive and significant effect on student engagement. This means that the use of Quizizz app can increase student focus, enthusiasm, and cognitive and emotional engagement during science learning.

DISCUSSION

The Influence of the Quizizz Application on Learning Motivation

Based on the results of the regression analysis, a correlation coefficient of 0.892 was obtained with an *R-square* value of 0.796, indicating that the use of the digital learning media Quizizz app has a very strong relationship with student learning motivation. This confirms that the use of Quizizz app contributes significantly to increasing student learning motivation in science learning.

This increase in learning motivation is inseparable from Quizizz's characteristics as a gamification-based learning medium that creates an interactive and enjoyable learning environment. Features such as engaging visuals, a scoring system, and immediate feedback enhance student enthusiasm and engagement. Furthermore, the healthy competitive element encourages students to achieve their best, indirectly increasing their intrinsic motivation to learn. This demonstrates that engaging and participatory learning can significantly boost student motivation.

This finding is in line with research by Jong & Tacoh (2024), which shows that the use of Quizizz has a significant influence on learning motivation. Similar results were also found by Nirmalasari & Susanti (2023); Wijayanti et al. (2023), which states that Quizizz app can improve motivation and learning outcomes through interactive question presentation and instant feedback. Thus, this study confirms the effectiveness of gamification-based digital learning media in increasing student learning motivation.

The Effect of Quizizz on Student Persistence

The research results showed that the use of Quizizz app had a positive and significant effect on student persistence, contributing 79.5%. This suggests that the more optimal the use of Quizizz app in learning, the higher the student's persistence in completing assignments and facing learning challenges.

Student persistence is evident in their tendency to keep trying to solve problems despite difficulties, as well as their drive to improve their results. Quizizz's challenge feature and point system encourage students to persevere, as each attempt provides feedback that helps them understand their mistakes. Furthermore, the non-monotonous learning environment encourages students to focus and consistently follow through with the learning process. Thus, using Quizizz app not only improves learning outcomes but also fosters persistence and resilience in students.

This finding is in line with research by Hidayat & Sridiyatmiko (2022), which states that using Quizizz can increase student persistence in completing learning tasks. Research by Habsy et al. (2024), also shows that gamification-based media can encourage students to be more diligent and not give up easily in the learning process.

The Influence of Quizizz on Student Activity

The analysis showed that the use of Quizizz had a positive and significant impact on student engagement, contributing 67.0%. This indicates that the use of digital learning media can increase student participation and active responses in the learning process.

Student engagement is reflected in increased participation in answering questions, paying attention to the material, and engaging in every learning activity. Quizizz provides opportunities for all students to participate directly through interactive quizzes, ensuring that no student remains passive during the learning process. Furthermore, the engaging interface and immediate feedback system encourage students to focus and respond confidently. This demonstrates that the use of digital learning media can create a more engaging and student-centered learning experience.

This finding is in line with research by Wahyuni & Besar (2025), which states that the use of Quizizz app can increase students' activeness and enthusiasm for learning. Dinda Salma &

Mastoah (2025), also shows that Quizizz app can increase student participation and create a more interactive learning atmosphere.

The Impact of Quizizz on Student Engagement

The use of Quizizz app has also been shown to have a positive and significant impact on student engagement, contributing 62.0%. This demonstrates that digital learning media can increase overall student engagement in the learning process.

Student engagement is evident in their increased attention to the material, active participation in quizzes, and enthusiasm throughout the learning process. Students are engaged not only physically but also cognitively and emotionally, as they feel challenged and enjoy the learning process. Furthermore, features like scores and rankings further motivate students to continue learning until completion. This demonstrates that interactive learning can create a more meaningful learning experience.

This finding is in line with research by Jong & Tacoh (2024), which states that the use of Quizizz can increase student engagement and responsibility in learning. Aprianis & Afrianis (2024), also shows that Quizizz is effective in increasing interest and engagement in learning through enjoyable learning experiences.

Overall, the results of this study indicate that the use of the Quizizz application as a gamification-based digital learning medium has a positive and significant impact on students' learning motivation. This improvement is reflected in aspects of persistence, activeness, and engagement in learning. Therefore, the use of interactive and innovative digital learning media can be an effective alternative learning strategy to improve the quality of the learning process and outcomes of elementary school students.

CONCLUSION

Based on the research results and discussion, it can be concluded that the use of the digital learning media Quizizz app has a positive and significant effect on student learning motivation in science lessons in elementary schools. This influence is quite strong, as demonstrated by Quizizz's app high contribution in explaining variations in student learning motivation. This demonstrates that the use of digital-based learning media can effectively improve the quality of the learning process.

Furthermore, the use of Quizizz app has been shown to have a positive and significant impact on students' persistence, activeness, and engagement in learning. Students become more persistent in completing assignments, more active in participating, and more fully engaged in the learning process. These findings indicate that gamification-based learning media not only increases motivation in general but also strengthens important components of learning motivation.

Thus, the use of Quizizz app can be used as an effective and innovative alternative learning strategy to increase student motivation. The implications of this research demonstrate the importance of integrating technology into learning to create a more interactive, engaging, and student-centered learning environment.

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