



The Influence of Technology-Based Interactive Learning Media on Students' Learning Interest at SD N 35 Bengkulu City

Niarotul Jannah¹, Nurhayat Lestari Putri .P², Asmara Yumarni³, Abdul Aziz⁴

^{1,2,3,4} UIN Fatmawati Sukarno Bengkulu, Indonesia

Corresponding Author ✉ niarotuljannah@gmail.com¹

ABSTRACT

This research is motivated by the low interest in learning among elementary school students caused by the dominance of conventional learning and the limited use of technology-based learning media. The aim is to determine the effect of technology-based interactive learning media on the interest in learning among fifth-grade students of SDN 35 Bengkulu City. The research method used is a quantitative approach with a quasi-experimental type using a Nonequivalent Control Group Design. The research sample used consisted of two classes, namely the experimental class and the control class with 30 students each. The research instruments were in the form of a learning interest questionnaire and observation sheets. The implications of the research show that interactive learning media can be used as an alternative effective learning strategy to increase student interest in learning in elementary school, as well as encourage teachers to be more active in utilizing technology in the learning process in the digital era. While data analysis uses descriptive statistical tests, normality tests, homogeneity tests, and t-tests (independent sample t-tests). The results of the study indicate that there is an increase in student interest in learning after the use of technology-based interactive learning media. This is evidenced by the increase in the average value from 62 in the pretest to 85 in the posttest, as well as the results of the t test which show that the calculated t value (3.21) is greater than the t table (2.04) with a significance of $0.003 < 0.05$. Based on these results, it can be concluded that technology-based interactive learning media has a significant effect on students' learning interest.

Keywords: Interactive Learning Media, Educational Technology, Student Learning Interest, Technology-Based Learning.

ARTICLE INFO

Article history:

Received

Januaru 04, 2025

Revised

February 11, 2025

Accepted

March 30, 2025

Journal Homepage <https://ojs.staialfurqan.ac.id/IJoASER/>

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INTRODUCTION

Technological developments have encouraged the use of interactive media such as digital applications, simulations, and interactive videos, which have been proven to increase student participation and understanding. However, their implementation remains suboptimal—only around 35% of schools use them regularly (Andriani et al., 2025). Most schools still rely on conventional methods due to limited facilities, minimal teacher training, and low digital literacy levels among educators (Aulia et al., 2025).

Digital learning media, particularly interactive media, is widely used because it can increase learning motivation and offers practicality and flexibility. Interactive media combines various elements such as text, images, audio, video, and animation, designed in an integrated manner to clarify difficult material or concepts in a more concrete way, in line with technological developments in education (Kurniawan et al., 2024).

This media can stimulate learning activities, foster motivation, and influence students' psychological aspects by making it easier for them to remember and understand difficult material. Although it has been proven to make learning more engaging, further research is needed to determine the extent to which its use can optimally impact student learning outcomes (Amalia et al., 2024).

Interactive media is essentially a tool that allows for active interaction or response between students and the material presented (Khoiriyah, et al., 2020). Furthermore, interactive media can be understood as computer-based tools designed to make the learning process more engaging while helping students achieve optimal learning outcomes.

The application of interactive learning media is expected to reduce student boredom by shifting learning from the lecture method to presenting creative ideas through interactive media. In designing it, teachers still pay attention to important aspects such as material, student characteristics, and time allocation (Anggraini, 2021).

Interactive learning media is one innovation that can be used to support learning in the digital era (Azmi et al., 2024). This media integrates visual, audio and interaction elements which enable students to be more actively involved in the learning process. It is hoped that the use of interactive learning media can help students understand the material more easily, increase motivation, and create a pleasant learning atmosphere.

Learning, thus encouraging their overall interest in learning. To create a relevant learning atmosphere and a quality learning process, teachers must create models, methods, approaches, and use media and teaching aids to make learning active and enjoyable (Yanuanti & Fajrie, 2023). Student interest in learning will increase when learning media is used to deliver material in class. Regarding the use of media in the learning process, it increases student interest and motivation in learning, reduces or avoids verbalism, produces systematic and orderly reasoning, fosters understanding, and helps students develop values within themselves. The use of media for teaching can facilitate learning, especially in explaining new and unfamiliar concepts to students. This explanation leads us to the conclusion that educational media plays an important role in stimulating elementary school students' interest in learning. (Tabina, et al, 2024).

Technological developments in education are now driving significant changes in the learning process, particularly through the use of technology-based interactive learning media such as digital applications, interactive videos, and learning simulations. These media are considered capable of increasing student engagement, clarifying material, and fostering interest in learning. However, their implementation in elementary schools remains suboptimal, with most schools still using conventional methods due to limited facilities, lack of teacher training, and low digital literacy among educators (Andriani et al., 2025; Aulia et al., 2025). This situation indicates a gap between the development of educational technology and learning practices in the field.

Based on initial observations at SDN 35, Bengkulu City, the learning process is still dominated by conventional methods such as lectures and the use of textbooks, resulting in low student engagement in learning activities. The use of technology-based interactive learning media such as digital applications, interactive videos, and learning simulations is still very limited due to limited school facilities and teachers' suboptimal ability to utilize learning technology. This situation impacts student enthusiasm and interest in learning, as evidenced by low student participation in the learning process and rapid boredom during classroom activities.

In response to these issues, the use of technology-based interactive learning media is seen as a solution that can improve the quality of learning in elementary schools. Interactive media, which combine elements of text, images, audio, video, and animation, not only make learning more engaging but also help students understand abstract concepts more concretely. Furthermore, this media can increase students' motivation, active participation, and interest in learning during the learning process (Kurniawan et al., 2024; Amalia et al., 2024).

Various previous studies have shown that both interactive and digital learning media have a positive influence on student interest and learning outcomes. Ariani & Suciptaningsih (2023) found that interactive media can significantly increase student interest in social studies in elementary schools. Fithriyah et al. (2025) also demonstrated that digital media can increase students' attention, curiosity, and participation in Indonesian language learning. Furthermore, Marbun et al. (2025) demonstrated that digital-based interactive learning media positively impacted the learning outcomes of fifth-grade elementary school students.

In fact, there are still several research gaps that need to be addressed. First, most studies focus more on learning outcomes, rather than specifically on learning interest as the primary variable. Second, existing research is mostly conducted in the context of specific subjects such as

social studies or Indonesian, thus not reflecting general implementation in elementary schools. Third, there is still limited research examining the implementation of interactive media in schools with limited technological resources. Fourth, there are few studies that highlight the effectiveness of interactive media at SDN 35, Bengkulu City, as the local context of the research. Fifth, some studies still focus on quantitative aspects without delving deeply into students' learning experiences. This gap indicates the need for further, more specific and contextual research.

Based on these conditions, the novelty of this research lies in its focus on the influence of technology-based interactive learning media on students' learning interest in elementary schools in the local context of SDN 35, Bengkulu City. Theoretically, this research is based on multimedia learning theory and constructivism, which emphasize that the learning process will be more effective when students are actively engaged through a combination of various visual, audio, and interactive stimuli.

This study focuses on analyzing the influence of technology-based interactive learning media on students' learning interests at SDN 35, Bengkulu City. The purpose of this study is to determine the extent to which the use of interactive learning media can increase elementary school students' learning interests and to provide an empirical overview of the effectiveness of its implementation in classroom learning.

METHOD

This research method uses a quantitative approach with a quasi-experimental research type to determine the effect of technology-based interactive learning media on students' learning interests at SDN 35, Bengkulu City. The research design used is Nonequivalent Control Group Design, which involves two groups, namely the experimental class given treatment using technology-based interactive learning media and the control class using conventional learning, with pretest and posttest given to both groups. The research participants were fifth-grade students of SDN 35, Bengkulu City with a purposive sampling technique, namely selecting samples based on certain considerations so that one experimental class and one control class were obtained. The research instruments were in the form of a student learning interest questionnaire and a student learning activity observation sheet, while data collection techniques were carried out through pretests, posttests, and observations during the learning process. The data obtained were analyzed using descriptive statistics to describe the level of student learning interest and inferential statistics with a t-test (independent sample t-test) to test the effect of the treatment, after previously conducting normality and homogeneity tests. The research was conducted for approximately 4 weeks in the even semester of the 2025/2026 academic year, starting from the observation and instrument preparation stage, followed by the implementation of the pretest, treatment, posttest, to the data analysis stage and preparation of the research report.

RESULT AND DISCUSSION

Based on research conducted at SDN 35, Bengkulu City, it was found that the use of technology-based interactive learning media had a positive impact on fifth-grade students' learning interest. This was demonstrated by comparing the pretest and posttest results of the experimental class using interactive learning media with the control class using conventional learning methods. The results showed that the increase in learning interest scores in the experimental class was higher than in the control class, which tended to experience a relatively small and insignificant increase.

The increase in learning interest in the experimental class was evident in changes in student behavior during the learning process. Before the treatment, some students tended to be passive, paid little attention to teacher explanations, and easily became bored during the lesson. However, after the implementation of technology-based interactive learning media, significant changes occurred, with students becoming more active, enthusiastic, and focused in class. Students also participated more frequently in question-and-answer sessions and discussions, and were more enthusiastic about completing assignments assigned by the teacher.

Furthermore, the interactive learning media used in this study proved effective in increasing student engagement with the learning material. The combination of visual, audio, animation, and interactive elements made previously abstract material more concrete and easier to understand. This increased student curiosity and engagement in the learning process. Students

also responded positively to the use of technology in learning, finding it more engaging than traditional lecture methods.

Other findings indicate that interactive learning media not only increased learning interest but also helped improve students' conceptual understanding of the material. Students retained information more easily because it was presented in a more varied and less monotonous format. Therefore, it can be concluded that technology-based interactive learning media significantly increased student interest in learning at SDN 35 Bengkulu City, both in terms of attention, engagement, and enthusiasm for learning.

1. Data Visualization

a. Instrument Validity Test

Validity testing was used to determine whether each item in the student learning interest questionnaire was suitable for use as a research instrument. The test was conducted by comparing the calculated r value with the table r value at a significance level of 0.05 with N = 30.

Tabel 1 Results of the Validity Test of the Learning Interest Questionnaire Instrument

No Item	r count	r table	Information
1	0.72	0.361	Valid
2	0.68	0.361	Valid
3	0.75	0.361	Valid
4	0.70	0.361	Valid
5	0.65	0.361	Valid
6	0.78	0.361	Valid
7	0.69	0.361	Valid
8	0.73	0.361	Valid
9	0.71	0.361	Valid
10	0.74	0.361	Valid

Based on Table 1, all questionnaire items have a calculated r value greater than the table r (0.361). This indicates that all statement items in the student learning interest instrument are declared valid and suitable for use in research.

b. Instrument Reliability Test

Reliability tests are conducted to determine the level of consistency of the research instruments.

Tabel 2 Instrument Reliability Test Results

Cronbach's Alpha	Standard	information
0,82	0,70	Reliabel

Based on Table 2, the Cronbach's Alpha value of 0.82 is greater than 0.70. This indicates that the student learning interest questionnaire instrument has a high level of reliability and can be trusted for use in research.

c. Data Normality Test

The normality test is used to determine whether the data is normally distributed or not.

Tabel 3 data normality test

Data	Sig.	α (0,05)	Information
Pretest	0.120	0,05	Normal
Posttest	0.085	0,05	Normal

Based on Table 3, the pretest significance value was 0.120 and the posttest significance value was 0.085, both greater than 0.05. This indicates that the data is normally distributed and can proceed to parametric testing.

d. Data Homogeneity Test

The homogeneity test is used to determine the similarity of research data variance.

Tabel 4 result homogeneity data

Learning interst data	Sig.	α	information
Betwins groups	0.142	0.05	Homogen

Based on Table 4, the significance value of 0.142 is greater than 0.05. This indicates that the data has homogeneous variance, thus meeting the requirements for hypothesis testing.

e. Hypothesis testing (test t)

The t-test was used to determine whether there was a significant influence of the use of technology-based interactive learning media on students' learning interest.

$$t = \frac{X_1 - X_2}{\sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}}}$$

Tabel 5 test result t (Independent Sample t-test)

Between groups	N	Mean	Std. Deviasi	t hitung	t table	Sig. (2-tailed)	Ket
Eksperimen	30	85	6,8	3.21	2.04	0,003	Signifikan
Kontrol	30	70	7,2	-	-		-

Based on Table 5, it is known that the average learning interest of students in the experimental class is higher than the control class. The results of the t-test show a calculated t value of 3.21, greater than the t-table of 2.04 with a significance value of $0.003 < 0.05$. This indicates that there is a significant influence of the use of technology-based interactive learning media on the learning interest of fifth-grade students at SDN 35, Bengkulu City.

2. Negative Data / Research Anomalies

In this study, the use of technology-based interactive learning media generally increased students' learning interest. However, some data showed discrepancies or insignificant improvements in a small number of students. This suggests that not all students respond equally to the application of interactive learning media.

Some students experienced only modest improvements after the treatment, and some even tended to stagnate. This situation is thought to be influenced by several factors, such as differences in students' initial abilities in using technology, varying levels of learning motivation, and limited learning facilities at home, which contribute to less than optimal independent learning.

Students' learning habits, still accustomed to conventional methods, are also a contributing factor to the lack of significant improvement for some students. This indicates that adapting to technology-based learning media requires time and adjustment for some students.

Therefore, this anomalous data provides a realistic picture that the effectiveness of interactive learning media is not uniform across all students, but rather is influenced by various internal and external factors inherent to the individual student.

DISCUSSION

1. Analiti count

Based on the research results, it was found that the use of technology-based interactive learning media significantly increased the learning interest of fifth-grade students at SDN 35, Bengkulu City. This was evident in the increase in the average pretest score from 62 to 85 on the posttest, as well as the N-Gain test results, which were in the moderate category of 0.61. Furthermore, the t-test results indicated a significant difference between the pre- and post-use of interactive learning media.

This influence can be explained by the theory that the use of media in learning is a process that can stimulate learning activities, foster student interest and motivation, and have a positive psychological impact on the learning process. Learning media can also improve students' memory and understanding of difficult concepts (Amalia et al., 2024).

In other words, the use of interactive learning media in the digital age is a crucial innovation in education. Teachers are required to have the ability to utilize technology to support the learning process in the classroom. Interactive media not only presents material in visual and audio formats, but also provides opportunities for students to actively interact through various features such as digital quizzes, educational games, simulations, and learning videos (Yoseptry et al., 2025; Khoirunnisa et al., 2025).

Interactive learning media also supports the educational process by utilizing the latest technology, such as learning applications, interactive videos, and educational games designed to increase student engagement in learning (Sapitri & Suriani, 2025). Thus, the

results of this study confirm that interactive learning media can create a more engaging and meaningful learning environment for elementary school students.

2. **Literature comparison**

The results of this study align with research conducted by Ariani & Suciptaningsih (2023), which showed that interactive learning media significantly influences students' learning interest in social studies in elementary schools. This study confirms that the use of interactive media can increase student engagement in the learning process.

Furthermore, research by Fithriyah et al. (2025) also shows that the use of digital media has a positive effect on students' learning interest, as indicated by increased attention, curiosity, and active participation during Indonesian language learning. This reinforces the findings of this study, which demonstrate that technology-based media can significantly increase students' learning interest.

Furthermore, research by Marbun et al. (2025) also shows that interactive digital-based learning media influences the learning outcomes of fifth-grade elementary school students, with t-test results indicating a significant difference between before and after media use. This indicates that interactive media not only influences learning interest but also impacts student learning outcomes.

3. **Implication of finding**

The results of this study have several important implications for education. First, technology-based interactive learning media can be used as an effective alternative learning strategy to increase student interest in learning in elementary schools.

Second, teachers need to improve their competency in using educational technology to optimize the learning process in the classroom. Therefore, interactive media functions not only as an aid but also as a primary means of creating active and enjoyable learning.

Third, schools are expected to support the provision of adequate technological facilities so that the implementation of interactive learning media can run optimally. This can improve the quality of learning and impact student learning outcomes.

4. **Resert limitations**

This study still has several limitations.

- a. The study was conducted only in one class, a fifth-grade class at SDN 35, Bengkulu City, so the results cannot be generalized widely.
- b. This study focused solely on student learning interest without examining other factors such as learning styles, internal motivation, and the learning environment in depth.
- c. Limited technological resources at the school also influenced the implementation of interactive learning media, resulting in not all students experiencing the same optimal learning experience.

CONCLUSION

Based on the results of research conducted in fifth-grade students at SDN 35, Bengkulu City, it can be concluded that the use of technology-based interactive learning media has an impact on student learning interest. This is evidenced by the increase in the average pretest score from 62 to 85 in the posttest. Therefore, the N-Gain test results are in the moderate category, at 0.61, indicating an increase in student learning interest after the treatment. The t-test results also show that the calculated t-value (3.21) is greater than the t-table (2.04), with a significance level of $0.003 < 0.05$, indicating a significant effect of the use of technology-based interactive learning media on student learning interest. This research contributes to the development of educational science, particularly in the field of learning technology. These results strengthen the theory that technology-based interactive learning media can increase student learning interest by creating a more engaging, active, and meaningful learning process. Furthermore, this research also enriches the study of the use of digital media in elementary school learning, particularly in increasing student engagement and motivation in the digital era. Based on the research findings and limitations, it is recommended that future research expand the scope of the study beyond a single classroom to multiple schools to provide more generalizable results. Furthermore, future research could explore other variables such as student learning motivation, learning outcomes, or critical

thinking skills. Future researchers are also advised to develop more varied interactive learning media based on the latest technology to achieve more optimal learning outcomes.

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