



The Influence of Using Smart Apps Creator on Science Learning Interest of Grade VIII Students of SMP Negeri 33 Makassar City

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Abstract

This study aims to determine the effect of the use of Smart Apps Creator on the interest in learning science of grade VIII students of SMP Negeri 33 Makassar. This research is a type of quantitative research with a pre-experimental approach, and a one-shot case study research design. The subject of the study is 73 students in grade VIII of SMP Negeri 33 Makassar for the 2024/2025 academic year. The data collection technique used observation and questionnaires. The data analysis used is descriptive and inferential statistical analysis. The results showed that as many as 50.68% of students were in the criteria of interest, with the percentage in each indicator, namely 84.16% of students showing feelings of pleasure, 82.41% showing activeness in learning, 83.18% showing interest in learning, and 78.90% showing involvement in learning. The results of the hypothesis test showed that the t-calculated value of the t-table $>$, which was $3.009 > 1.994$ so that H_a was accepted and H_o was rejected. Based on the findings of these results, it can be concluded that there is an influence of the use of Smart Apps Creator on the interest in learning science of grade VIII students of SMP Negeri 33 Makassar.

Kata Kunci: Media Pembelajaran, Pembuat Aplikasi Cerdas, Minat Belajar Siswa.

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Abstrak

Penelitian ini bertujuan untuk mengetahui pengaruh penggunaan Smart Apps Creator terhadap minat belajar IPA siswa kelas VIII SMP Negeri 33 Makassar. Penelitian ini merupakan jenis penelitian kuantitatif dengan pendekatan pre-eksperimental, dan desain penelitian one-shot case study. Subjek penelitian adalah siswa kelas VIII SMP Negeri 33 Makassar tahun pelajaran 2024/2025 yang berjumlah 73 siswa. Teknik pengumpulan data menggunakan observasi dan angket. Analisis data yang digunakan adalah analisis statistik deskriptif dan inferensial. Hasil penelitian menunjukkan sebanyak 50,68% siswa berada pada kriteria minat, dengan presentase pada masing-masing indikator yaitu 84,16% siswa menunjukkan perasaan senang, 82,41% menunjukkan keaktifan dalam pembelajaran, 83,18% menunjukkan minat dalam pembelajaran, dan 78,90% menunjukkan keterlibatan dalam pembelajaran. Hasil uji hipotesis menunjukkan bahwa nilai t hitung $>$ t tabel, yaitu $3,009 > 1,994$ sehingga H_a diterima dan H_o ditolak. Berdasarkan temuan hasil tersebut, dapat disimpulkan bahwa terdapat pengaruh penggunaan Smart Apps Creator terhadap minat belajar IPA siswa kelas VIII SMP Negeri 33 Makassar.

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INTRODUCTION

Quality education is supported by several components that improve the quality of the learning process, including teachers, students, and learning resources such as books and other learning media. Education management is crucial for teachers to ensure that learning is effective, efficient, and that learning objectives are achieved (Nawir et al., 2024). According to Law Number 20 of 2003 concerning the National Education System, educators are professionals who are tasked with planning and implementing the learning process and assessing learning outcomes. Thus, the professionalism of teachers as educators is required to continue to improve in line with the needs of society, science and technology, and developments of the times.

Indonesian education currently faces the challenges of 21st-century learning, which has brought significant changes to the learning media used in schools. Conventional one-way media is being replaced by more interactive and technology-based media. The development of technology, which has now become a primary need and is linked to education, is a revolutionary factor in advancing education (Nurindah & Kasman, 2021).

Learning media not only serve as teaching aids but also as effective tools to enhance the quality of learning. According to Junaidi (2019), the use of learning media in the teaching process can foster new interests and desires, increase motivation, stimulate learning activities, and even have psychological impacts on students. The use of technology in learning can also foster student interaction with learning media in an effort to build their own knowledge (Akram et al., 2022). The lack of utilization of technology as a learning medium can result in suboptimal teaching and learning processes, which can affect learning interest and, consequently, student achievement.

Student interest in learning in Indonesia still faces significant challenges, particularly in efforts to improve the quality and standards of education. According to the results of the 2022 Program for International Student Assessment (PISA) survey (Adiputri, 2023), the average ability of Indonesian students is lower than the international average, with declines observed in several areas, including reading literacy, mathematics, and science. Reading literacy scores reached only 359 points out of the global average of 469, while mathematics and science scores stood at 366 points each out of the global average of 384, marking a decline from 2018 levels. These results present more complex challenges for Indonesia's education system, including the need for changes in teaching approaches and curriculum development that are more focused on aspects and skills that meet the demands of the 21st century.

Based on the initial observations conducted by the author at SMP Negeri 33 Makassar, in the implementation of learning, particularly in the Natural Sciences (IPA) subject for eighth-grade students, teachers have not optimized the use of multimedia learning tools. Teaching and learning activities still rely on conventional media, such as printed textbooks. This makes students feel bored and have difficulty understanding the learning material. Science is one of the subjects in school that requires in-depth understanding and practical application in daily life. In the context of science learning, high interest and motivation are crucial to help students understand complex concepts and develop critical and analytical thinking skills (Suratman, 2024).

Low student interest can be seen from minimal participation in class discussions and a lack of motivation to complete assignments (Nawir et al., 2025). Interest has a significant influence on the learning process; if students do not have sufficient interest to explore a subject, the learning they receive will not achieve optimal results (Inayah et al., 2023). High interest in learning will encourage students to be more active, enthusiastic, and actively participate in learning activities (Maylitha et al., 2023). Conversely, a lack of interest in learning can cause students to become passive and less enthusiastic in following lessons,

resulting in low critical thinking skills (Silitonga et al., 2023) and negatively impacting students' academic achievement and outcomes (Hikmah et al., 2022). Therefore, it is crucial for educators to find effective ways to cultivate students' interest in learning, thereby increasing their enthusiasm for developing their potential and academic achievements.

One alternative to address the above issues is to utilize Smart Apps Creator-based media in learning activities. According to Prakoso (2020), Smart Apps Creator is one of the mobile software for Android and iOS that does not require programming code and can generate HTML5 and EXE formats. The use of Smart Apps Creator in the current digitalization era is quite appropriate and effective because it can assist the teaching and learning process so that students do not feel bored during the learning process (Susanti et al., 2021), (Jaiz et al., 2022). The Smart Apps Creator platform has several advantages, such as an attractive interface that integrates multimedia elements like videos, audio, and images into a single unit (Nasir et al., 2022), and the applications it produces can be accessed offline, allowing students to study the material directly without using data (Aisyah et al., 2023).

Previous studies and research have shown that the use of technology in learning can increase student motivation and learning outcomes. However, research specifically examining the influence of Smart Apps Creator use on student learning interest is still limited. Therefore, this research is very important to conduct.

Based on the above background, this study focuses on examining the extent to which the use of Smart Apps Creator influences the learning interest of eighth-grade science students at SMP Negeri 33 Makassar. The results of this study are expected to contribute to the use of more effective and innovative learning media and support efforts to enhance students' learning interest in the learning process.

METHODS

Type of Research

This research is a quantitative study using a pre-experimental approach. The research design used is a one-shot case study, where the study involves only one group as the experimental group without a control group (control class).

Time and Place of Research

This research was conducted at SMP Negeri 33 Makassar, located at Jl. Tamalate 8 No. 148, Kassi-Kassi, Kec. Rappocini, Kota Makassar, South Sulawesi 90222. The research was conducted over a period of approximately two months, from December 2024 to February 2025.

Research Subject

The population in this study was all 275 eighth-grade students at SMP Negeri 33 Makassar. The sampling technique used was cluster sampling, which is a sampling technique where the researcher forms several clusters from the selection of some individuals to be part of the population. The sample size was determined using the Slovin formula, resulting in a sample of 73 eighth-grade students.

Type of Data Instrument

The instruments used in this study were observation sheets and questionnaires with a Likert scale to produce accurate data. The Likert scale was used to measure students' attitudes, opinions, and perceptions regarding the use of Smart Apps Creator in learning and to determine its effect on students' interest in science.

Data Collection Techniques

The data collection techniques used by the researcher were observation, distributing questionnaires to students as respondents, and documenting the research. Observations were conducted to observe students' learning activities using Smart Apps Creator. Questionnaires were used to obtain responses from selected groups through a list of questions. The researcher used questionnaires to obtain research data on students' interest in learning science using Smart Apps Creator as a learning medium. Research documentation was used to obtain information and strengthen the data obtained.

Data Analysis Techniques

The analysis techniques used in this study were descriptive and inferential analysis techniques using SPSS software. Simple regression analysis with t-tests was used to test the research hypotheses. Before testing the hypotheses, classical assumption tests were conducted, namely normality and linearity tests.

RESULTS AND DISCUSSION

Research Results

The results of the learning activities of 73 eighth-grade students at SMP Negeri 33 Makassar in the science learning process using Smart Apps Creator can be seen in the following table:

Table 1. Percentage of Student Learning Activities

No.	Student Learning Activities	Meeting/ Frequency		Percent (%)	
		I	II	I	II
1	Attending science classes	73	73	100	100
2	Enthusiastically participating in the science learning process	60	62	82.19	84.93
3	Pay attention to the teacher's explanation of the material.	60	63	82.19	86.30
4	Take notes on the material explained by the teacher.	56	59	76.71	80.82
5	Work well in groups.	64	65	87.67	89.04
6	Be able to complete tasks given by the teacher independently.	73	73	100	100
7	Be brave enough to ask questions related to the material presented by the teacher.	45	48	61.64	65.75
8	Respect classmates who cannot answer the teacher's questions.	73	73	100	100
9	Be brave enough to express opinions in discussions.	49	51	67.12	69.86
10	Be able to draw conclusions from discussions.	42	46	57.53	63.01
Percentage of student learning activities				81.51	83.97
Category				Good	Good

The results of the data analysis show that the percentage of student learning activities during the first meeting was 81.51% and during the second meeting was 83.97%.

The results of the questionnaire scores for the use of learning media were grouped into five interval categories. The following are the results of the data analysis of the Smart Apps Creator media usage instrument.

Table 2. Frequency Distribution and Percentage of Media Smart Apps Creator

Interval	Criteria	Frequency	Percentage (%)
43-50	Very Good	40	54.79
35-42	Good	32	43.84
27-34	Fairly Good	1	1.37
19-26	Not Very Good	0	0
10-18	Not Good	0	0
Total		73	100

Based on the established criteria, the results of the analysis of data from the Smart Apps Creator media usage instrument show that 54.79% of students strongly agree that the use of Smart Apps Creator media is very good for the learning process, 43.84% say it is good, and the remaining 1.37% say it is fairly good.

Table 3. Frequency Distribution of Students' Interest in Learning Science

Interval	Criteria	Frequency	Percentage (%)
81-100	Very interested	35	47.95
61-80	Interested	37	50.68
41-60	Somewhat interested	1	1.37
21-40	Not very interested	0	0
0-20	Not interested	0	0
Total		73	100

The results of the analysis of learning interest data from 73 students show that 47.95% are in the very interested category, 50.68% are in the interested category, and 1.37% are in the moderately interested category. The following table shows the percentage of student responses for each learning interest indicator.

Table 4. Percentage of Science Learning Interest Indicators for Students

Indicators	Percentage (%)
Feeling of joy	84,16
Active participation in learning	82,41
Interest in learning	83,18
Involvement in learning	78,90

Based on the results of the student learning interest questionnaire, the percentage of responses on the learning interest indicators showed that 84.16% of students expressed enjoyment, 82.41% of students showed enthusiasm in learning, 83.18% of students showed interest in learning, and 78.90% of students showed involvement in learning. Furthermore, inferential statistical analysis was conducted to test the research hypothesis formulated using classical assumption tests and simple linear regression.

1. Normality Test

The normality test was used to determine whether the residual values were normally distributed or not. The normality test in this study used the One Sample Kolmogorov Smirnov test, which is part of the classical assumption test. The basis for decision making is that if the significance value is > 0.05 , then the residual values are normally distributed. If the significance value is < 0.05 , then the residual values are not normally distributed. The results of the normality test can be seen in the following table.

Table 5. Normality Test

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		73
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	7.61206016
Most Extreme Differences	Absolute	.079
	Positive	.042
	Negative	-.079
Test Statistic		.079
Asymp. Sig. (2-tailed)		.200 ^{c,d}

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

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

Based on the results above, it can be seen that the significance value of $0.200 > 0.05$. Therefore, it can be concluded that the tested data is normally distributed. Thus, the research data meets the requirements for regression testing.

2. Linearity Test

The linearity test is used to determine whether the relationship between variables is linear or not. The basis for drawing conclusions is that if the significance value of deviation from linearity > 0.05 , there is a linear relationship between the independent variable and the dependent variable. If the significance value of deviation from linearity < 0.05 , there is no linear relationship between the independent variable and the dependent variable. The results of the linearity test can be seen in the following table:

Table 6. Linearity Test

			Sum of		Mean		
			Squares	df	Square	F	Sig.
Minat Belajar *	Between	(Combined)	1544.900	14	110.350	2.026	.031
Smart Apps Creator	Groups	Linearity	532.098	1	532.098	9.769	.003
		Deviation from Linearity	1012.802	13	77.908	1.430	.174
	Within Groups		3159.127	58	54.468		
	Total		4704.027	72			

Based on the results of the data test in the table above, it shows that the significance value of $0.174 > 0.05$ (seen in the deviation from linearity). Therefore, it can be concluded that there is a significant linear relationship. Thus, the research data meets the requirements for linear regression testing.

3. Hypothesis Testing

In this study, hypothesis testing was formulated using simple linear regression with a t-test. The t-test aims to test the research hypothesis, namely to see whether the independent variable (X) has a significant partial effect on the dependent variable (Y). The basis for the t-test decision is that if the significance value is < 0.05 or the t-count $>$ t-table, then H_a is accepted and H_0 is rejected, or it can be said that there is a significant partial effect. The t-table is obtained using the formula $n-k$, where n is the sample size and k is the number of variables in the study ($73-2 = 71$). With a significance level of 5% or 0.05, the t-table value is 1.994. The results of the t-test are presented below:

Table 7. T-test
Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	52.840	9.786	5.400	.000	
	Smart Apps Creator	.673	.224	.336	3.009	.004

a. Dependent Variable: Minat Belajar

Based on the results of the data analysis above, it shows that the significance value of $0.004 < 0.05$ and the t-count value $>$ t-table, namely $3.009 > 1.994$, so H_a is accepted and H_0 is rejected. Thus, it can be concluded that the independent variable (Smart Apps Creator media) has a positive and significant effect on the dependent variable (student learning interest).

Discussion

The research data was obtained through observation sheets and questionnaires given to 73 students who had used Smart Apps Creator in science learning. The results of the analysis showed that the use of Smart Apps Creator had a positive impact on students'

interest in learning. This finding was demonstrated by the results of the analysis of data on student learning activities during the learning process, which showed an increase from 81.51% in the first meeting to 83.97% in the second meeting. Based on the established categories, it was concluded that students' learning activities were in the good category, i.e., in the 75%-100% range. This means that the indicators of students' learning activities had been achieved.

The use of media in science learning has a high urgency in increasing students' interest in learning. Findings from the data analysis show that 54.79% of students strongly agree that the use of Smart Apps Creator media is very good for the learning process. Interactive and innovative learning media such as Smart Apps Creator used in this study can create a more interesting learning experience and reduce boredom in the learning process. The interactive features and visual displays offered by Smart Apps Creator are the main attractions that increase student engagement in the learning process. Additionally, the multimedia features in Smart Apps Creator, such as animations, videos, and interactive quizzes, allow students to learn through a more experiential approach compared to conventional learning media, thereby increasing curiosity and interest in the subject matter.

Based on the data analysis results, the percentage of responses to the questionnaire given to students showed an average learning interest score for each indicator, with 84.16% of students expressing enjoyment, 82.41% showing active participation in learning, 83.18% demonstrating interest in learning, and 78.90% indicating student engagement in learning. From the responses, it was found that 47.95% were in the highly interested category, 50.68% were in the interested category, and 1.37% were in the moderately interested category.

The research hypothesis was tested using a t-test. The test results showed a significance value of < 0.05 , which means that H_0 was rejected and H_a was accepted. Thus, it can be concluded that there is a positive and significant effect between the use of Smart Apps Creator and students' interest in learning. These findings indicate that interactive learning media can increase student participation and understanding of lesson material.

The results of this study are in line with several previous studies that state that the use of technology-based learning media can increase students' interest in learning. Khotimah et al. (2023) proved that there is a positive effect of using Smart Apps Creator media on students' interest in learning Integrated Science. Fricitarani et al. (2023) also emphasized that the effectiveness of using Smart Apps Creator learning media is higher than using conventional learning media because it is effective in increasing students' interest in learning. Additionally, research by Waruwu & Sijinjak (2022) showed that students' conceptual understanding increased by 15% after using interactive multimedia, thereby enhancing learning effectiveness and facilitating students' access to lesson materials.

The findings in this study are also supported by Piaget's constructivist learning theory (Harefa et al., 2023), which states that learning based on interaction and exploration can improve students' understanding and engagement. Furthermore, Keller's theory (ARCS Model) emphasizes that the aspects of attention and relevance in digital learning can increase and maintain students' interest in learning (Liza et al., 2024). Every student has a different learning style, whether visual, auditory, or kinesthetic. Therefore, the use of interactive media such as Smart Apps Creator not only serves as a learning aid but can also be an effective alternative in presenting materials that can be tailored to students' needs, creating a more engaging and enjoyable learning experience, thereby making students more active and involved in the learning process.

Although the results of the study show the positive impact of using Smart Apps Creator, there are also several challenges and limitations in its implementation. Not all students have access to compatible devices to run the Smart Apps Creator application. This could potentially create a learning gap. Additionally, teachers face difficulties in adapting technology into their

teaching methods. Teachers' limitations in adopting technology are one of the main barriers to the implementation of digital-based educational innovations. Technical challenges such as unstable internet connections, device compatibility issues, and system errors can hinder the effectiveness of using Smart Apps Creator in learning.

CONCLUSION AND SUGGESTIONS

Conclusion

Based on the analysis of the research results and discussion, it was concluded that:

1. A total 50.68% of 73 students are in the criteria of being interested in science learning, because according to students, learning using Smart Apps Creator media provides a pleasant experience while eliminating boredom during the learning process.
2. The indicator of learning interest with the highest percentage is the feeling of pleasure in learning, which is 84.16%.
3. Hypothesis testing shows that the t-count value (3.009) > t-table (1.994) so that H_a is accepted and H_0 is rejected.

Thus, it is concluded that there is an influence of the use of Smart Apps Creator on the interest in learning science of class VIII students of SMP Negeri 33 Makassar.

Suggestions

Based on the results of the research that has been conducted, suggestions that can be given in an effort to improve the quality of learning are as follows:

1. Schools can consider the use of digital technology in the learning curriculum to improve teaching effectiveness.
2. Teachers can utilize Smart Apps Creator as a learning medium by paying attention to aspects of interactivity and learning needs, especially in subjects that require complex concept visualization.
3. Further research can be conducted to explore the ongoing impact of the use of technology-based learning media in increasing student learning interest.

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