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The Effectiveness of Using Nearpod Learning Media Seen from the Interest in Learning Mathematics of Class XI Students at MAN 2 Sinjai

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Abstract

This research aims to determine the effectiveness of using nearpod learning media in terms of students' interest in learning mathematics. The population and samples of this study were grade XI students. The type of research used in this study is pre-experimental research with a One group Pretest-Post test design with a quantitative approach. This research was conducted at MAN 2 Sinjai. The sample of this study amounted to 23 people using purposive sampling technique. The data collection methods used were observation and questionnaire of interest in learning mathematics. The data analysis technique used was descriptive test, data normality test, homogeneity test, N Gain test and hypothesis testing using paired sample t-test. The results of this study showed that nearpod learning media proved effective in terms of students' interest in learning mathematics. It can be seen from the results of descriptive analysis obtained that $\mu_1 < \mu_2$ or 45.17 < 72.91, meaning that the average interest in learning mathematics after nearpod media treatment is greater than before nearpod media treatment. In addition, the results of the hypothesis test using the paired sample t-test obtained a sig value of 0.001. The significance value is smaller than 0.05 or 0.001 <0.05. Thus, the null hypothesis (H_0) is rejected and the alternative hypothesis (H_1) is accepted. From these results it can be concluded that the nearpod learning media is effective in terms of interest in learning mathematics of grade XI students at MAN 2 Sinjai.

Keyword: Efektivitas, Nearpod Media, Interest in Learning Mathematics.

1. Introduction

Mathematics is one of the most important subjects in education. Mathematics is commonly used in various fields of human life. Given the importance of math, it is also taught at all levels of education. Even so, not a few students still consider math as a boring, difficult, terrible and tiring lesson so that many students are less interested in learning math. This situation makes math unpopular and unnecessary. This certainly creates a huge gap between expectation and reality (Husain, 2022).

In accordance with the facts, most students are not interested in math because they think that math is difficult to understand. Therefore, as educators, we must create a fun learning atmosphere by keeping up with the times. There are so many learning models and methods that utilize technology. Therefore, we need a learning media that always involves each student's gadget so that students are interested in the learning process, especially math learning. If you are not able to keep up with the times, the existing science will be underdeveloped. (Rifqi, 2022).

Based on the results of observations made by researchers at MAN 2 Sinjai on October 31, 2023, especially in mathematics subjects, the learning media used are blackboards and mathematics textbooks, the learning process is often boring, and students are less interested in learning

mathematics. When conducting internship activities at MAN 2 Sinjai, especially in social studies classes, students did not seem excited and interested in learning math because they felt bored and considered math a difficult subject as evidenced by the value of their assignments. Teachers also only convey learning objectives, explain material in front of the class, provide formulas, example problems and assign students to solve problems and complete lessons.

The factor causing the lack of interest in learning mathematics is the ineffectiveness of students in participating in the learning process, which results in low student understanding of mathematics. Students do need interest in learning, because with interest in learning, students will be diligent in learning and will always be enthusiastic even when facing difficulties. Students will learn independently and students' academic achievement will improve if they have an interest in learning. There are several things that can be used to develop interest in learning, namely: applying learning methods, using learning media that is fun and attracts students' attention, praising students when they succeed in doing something, and creating students' feelings of happiness during the learning process (Rahayu et al., 2022). To create student interest in learning, learning media that attracts students' attention is needed, one of which is digital-based and interactive media. Learning activities certainly have several components, one of which is learning media. This learning media is a tool used by educators to convey material so that it helps the learning process to be more efficient (Muliati, 2021).

According to (Nurfadhillah, 2021), learning media is a tool that is deliberately used, both physical and non-physical, to facilitate understanding of learning material between teachers and students with the aim of strengthening and improving it. This view is in line with the opinion (Zainiyati, 2017) which states that learning media includes everything that is used to convey messages from the source to the recipient in a way that stimulates the mind, attention, interest, and desire of students to engage in learning, with the aim of achieving effective learning outcomes. Thus, learning materials are more quickly accepted by students and arouse interest and motivation for further learning. The use of the right learning environment offers benefits that students can feel in the learning process. An educator must utilize digital-based learning media (Oktaviani et al., 2021) Educators must know how to utilize innovative, efficient, and effective learning media (Susanto & Ismaya, 2022). The learning media used by educators should be media that can motivate students to participate in learning activities. One of the media that can be used is nearpod learning media.

According to t (Suandi et al., 2024) nearpod is a learning media designed to actively involve students in ongoing learning activities. Nearpod is an animated media that invites students to trigger curiosity about a subject matter (Sukma et al., 2016). Nearpod media is a media used by educators to make the classroom atmosphere meet learning objectives, one of which is to create focus in learning. Educators can also be creative in developing their own lesson plans by using various features provided. Nearpod also presents a variety of learning so that the class becomes active and encourages students to receive feedback while learning, thus giving the impression that students are satisfied with their learning. In addition, nearpod media also provides a variety of the best learning materials packaged in the form of modules, videos, animations, etc., so this media is suitable for use as a learning media that can foster interest in learning mathematics (Oktafiani & Mujazi, 2022).

This can be proven by the results of research (Rahmawati et al., 2022), that nearpod is one of the learning media platforms that can be utilized by teachers to create teaching materials that can cause students to be active and increase their interest in lessons. Furthermore, in previous research by (Susanto, 2021) that game-based learning media such as nearpod can make students behave competitively while learning.

Based on the results of this study, the research will conduct research using nearpod media to increase students' interest in learning mathematics. The difference between previous research and the research to be carried out is that this research focuses on students' interest in learning mathematics. Many problems arise related to learning mathematics, one of which is that math is considered a difficult and scary subject for students. With this nearpod media, it is hoped that it can prevent students from experiencing boredom and losing attention while learning.

The nearpod feature is very useful because it is in accordance with its purpose and function. Therefore, researchers are interested in examining nearpod learning media as a learning medium that supports students' interest in mathematics. Seeing also the problem above that not a few students are less interested in the learning process, especially in math lessons, the authors are interested in

examining "The Effectiveness of Using Nearpod Learning Media in View of the Interest in Learning Mathematics of Class XI Students at MAN 2 Sinjai".

2. Methods

The type of research used is pre-experimental research with a One-Group Pretest-Posttest design. The research design is as in Table 1 below:

Table 1 One Group Pretest-Posttest Design

Group	*Pretest*	Treatment	*Posttest*
Experiment	O_1	X	O_2

Sumber: (Syarifuddin, 2020)

The sample of this study were students of class XI IPS 2 at MAN 2 Sinjai in the 2023/2024 academic year totaling 23 students who were taken using purposive sampling technique. The data collection methods used in this study are: (1) Learning activity data were collected using student activity observation sheets when applying nearpod learning media, (2) Student learning interest data were obtained using a learning interest questionnaire given at the beginning (pre-test) before the application of nearpod learning media and at the end (post-test) after the application of nearpod learning media on derived function material.

Data from the research results were analyzed using descriptive statistics and inferential statistics. The data analyzed descriptively were student activity observation data and student learning interest results. While inferential statistics using paired sample t-test aims to generalize which includes estimation (estimation) and hypothesis testing on data.

3. Results and Discussion

3.1 Descriptive Analysis

3.1.1 Observation of Student Activity

Based on the results of observations made in class XI IPS2 MAN 2 Sinjai, the effectiveness of learning using nearpod media on student activities in learning obtained that the total presentation of students who were ready, active and diligent during the math learning process took place was 94.2% and 5.8% of students who were not ready, active and diligent during the math learning process. The student activities include 100% who are present during the learning process, 91.3% of students who pay attention to the teacher's explanation, 78.3% of students who are able to complete the task well, 100% of students are active during the learning process and 95.7% of students are not sleepy during the learning process using nearpod media. The data obtained can be said that the use of nearpod media includes very active criteria because the overall total presentation is 94.2%.

Thus, it can be stated that the use of nearpod learning media in learning mathematics specifically on the material of function derivatives in class XI IPS2 MAN 2 Sinjai descriptively has succeeded in achieving the desired criteria which is in the high category which means that students are enthusiastic in participating in learning.

3.1.2 Student Learning Interest

Based on the results of the questionnaire of students' interest in learning mathematics before and after the application of nearpod learning media in class XI IPS 2, the following data were obtained:

Table 2 Score Statistics of Students' Interest in Learning Mathematics

		Mathematics Learning Interest Pretest	Posttest Interest in Learning Mathematics
N	Valid	23	23
	Missing	0	0
Mean		45,17	72,91
Std. Deviation		5,348	5,325
Variance		28,605	28,356
Minimum		36	63
Maximum		56	80

Based on table 2, it can be seen that the motivation score of students' interest in learning mathematics has increased from pretest to posttest with an average before the nearpod media

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treatment of 45.17 to 79.91 after the nearpod media treatment. In addition, the minimum and maximum values have also increased. Before treatment, the minimum value was 36 to 63 after treatment, as well as the maximum value which initially amounted to 56 to 80 after the application of nearpod learning media treatment. Based on the data obtained and the results of descriptive analysis, the students' interest in learning mathematics by applying nearpod learning media is categorized into 5 categories, namely:

Table 3 Student Learning Interest Categories

Interval	Category	Frequency		Percentage	
		Pretest	Postest	Pretest	Postest
≥ 80	Very Interested	0	3	0%	13,0 %
66-79	Interested	0	18	0%	78, 3%
56-65	Moderately Interested	1	2	4,4%	8,7%
45-55	Less Interested	11	0	47,8%	0%
<45	Not Interested	11	0	47,8 %	0%
Amount		23	23	100	100

Source: (Hadi, 2018)

Based on table 3 categories of student interest in learning, it is obtained that there are no students in the very interested category and the interested category, but there are only 1 student in the moderately interested category with a percentage of 4.4%, 11 students in the less interested category with a percentage of 47.8% and 11 students also in the disinterested category with a percentage of 47.8% at the time before the nearpod learning media treatment (pretest). After conducting nearpod media treatment (posttest) there were 3 students in the interested category with a percentage of 13.0%, 18 students in the interested category with a percentage of 78.3%, 2 students in the moderately interested category with a percentage of 8.7% and no students in the less interested category and the disinterested category. This shows that nearpod learning media is effective in terms of students' interest in learning mathematics. Therefore, from the results it can be concluded that after being given treatment by utilizing nearpod learning media there is a significant increase in student interest in learning the material of function derivatives.

3.2 Inferential Analysis

Based on the results of the analysis that has been carried out as in table 4 below:Tabel 4. Hasil Uji Hipotesis

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pretes - Postes	-40.37931	6.05578	1.12453	-42.68280	-38.07582	-35.908	22	.000

In table 4, a significant value of 0.001 was obtained on student learning interest before and after being given the treatment in the form of nearpod learning media. The significance value is smaller than 0.05. Thus, it can be concluded that the use of Nearpod learning media is effective in terms of mathematics learning interest of grade XI students at MAN 2 Sinjai.

3.3 Effectiveness Analysis

The criteria and achievement of effectiveness (major research hypothesis) can be seen in the following table. Based on the results of descriptive and inferential data, effectiveness is fulfilled because it meets the criteria, the data results of the effectiveness analysis are as follows:

Table 5 Effectiveness Analysis Results

No	Indicator	Criteria	Achievements	Decision
1	Percentage of student learning activities	At least in the medium category with an interval of 62.52% - 81.27%,	94.2% are in the high category	Fulfilled
2	Statistics of the average post-test score of students' interest in learning mathematics	At least in the interested category with an interval of 66-79	72.9 is in the interested category	Fulfilled
3	N Gain Test	At least in the medium category with an interval of $0.3 \leq g \leq 0.7$	0.5 is in the medium category	Fulfilled

Thus, in general, the use of nearpod learning media is effectively applied in terms of the interest in learning mathematics of class XI students at MAN 2 Sinjai. Based on the results of the above research, it further strengthens the research conducted by (Nindah Nispiah and Alwin, 2023) with the title "Utilization of Nearpod interactive learning media on learning outcomes".

4. Conclusion

The use of nearpod learning media is effective in terms of students' interest in learning mathematics at MAN 2 Sinjai. This can be seen from the results of descriptive analysis obtained that the average student interest in learning before and after being taught using nearpod learning media has increased from 45.17 to 72.91, meaning that the average interest in learning mathematics after nearpod media treatment is greater than before nearpod media treatment. In addition, the results of the hypothesis test using the paired sample t-test obtained a sig value of 0.001. The significance value is smaller than 0.05 or 0.001 <0.05. Because in the hypothesis testing rules if the sig value <0.05 then H0 is rejected and H1. Thus, the null hypothesis (H0) is rejected and the alternative hypothesis (H1) is accepted. From these results it can be concluded that the nearpod learning media is effective in terms of interest in learning mathematics of grade XI students at MAN 2 Sinjai.

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