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Effect of Using the Kinemaster Application on the Learning Outcomes of Natural Sciences of Students UPT SMPN 3 Pitu Riase

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ABSTRACT

Background. This research was conducted at UPT SMP Negeri 3 Pitu Riase, precisely in Desa Compong, Kec. Pit Riase, Sidengreng Rappang Regency.

Purpose. There are 2 variables in this study, namely the independent variable that affects the use of the Kinemaster application (x) and the dependent variable, namely the learning outcomes of Natural Science class VII UPT SMP Negeri 3 Pitu Riase students (y).

Method. This study uses quantitative methods with the type of experimental research that aims to examine the effect of using the Kinemaster application on the learning outcomes of Natural Science students in class VII UPT SMP Negeri 3 Pitu Riase.

Results. The results of this study concluded that the effect of using the Kinemaster application on social studies learning outcomes of students in class VII UPT SMP Negeri 3 Pitu Riase, this shows that the working hypothesis which states that there is an effect of using the Kinemaster application on social studies learning outcomes of students in class VII UPT SMP Negeri 3 Pitu Riase, is accepted.

Conclusion. The collected test data were analyzed using the average formula. Based on the results of data analysis obtained X value = 83.4 > Y value = 69.64 so that it can be seen that there is an effect of using the Kinemaster application on the learning outcomes of students in class VII UPT SMP Negeri 3 Pit Riase.

KEYWORDS

Influence, Kinemaster, Natural Science

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INTRODUCTION

Education is an important part of a country, everyone starting from the lowest level to the top will definitely think about education (Kang & Kim, 2021). The purpose of education, namely to develop the expertise possessed by a person both spiritually and non-spiritually carried out at school and outside of school, regarding religion and one's

personality as well as regarding one's morals both in the family, community and country with the aim that the expertise possessed can be developed (Shalikhah et al., 2023). Therefore, education has an important role in the survival of a country (Anna Pertiwi, 2022).

According to law no. 20 of 2003 concerning the national education system "Education is a conscious and intentional effort to create learning and learning situations for students to actively improve their quality (Morse et al., 2020), so that they have spiritual *enthusiasm* , self-mastery, character, skills, manners, and the discipline they use (Gajah & Medan, 2023).Teni Nurrita, 2018 in (Wastriami & Mudinillah, 2022)To prepare the younger generation to progress from time to time during the current 4.0 era, the knowledge possessed must be properly prepared so that it can provide good and good results so that it can aim according to what is intended. desired by using the technology that is developing at the present time.

Darmayanti et al., 2007 in (Wastriami & Mudinillah, 2022)Over time, education in Indonesia has made many improvements (Le Berre et al., 2020), one of which is using learning media. In education today there are many teachers using various applications to support the learning process so that students can learn by using various good innovations so that they can foster enthusiasm for learning for students, and by using learning media can improve the quality of methods in the teaching and learning process of a person. junior high school teachers (Aldowah et al., 2019), both in person and remotely.Forms of learning media that teachers can reflect on, for example, are in the form of videos in which there is supporting music, face-to-face teacher videos (Wu et al., 2019), explanations and animations of interesting material. Regarding Natural Science learning media, of course teachers are more required to make learning videos that are more creative, innovative and efficient. Therefore, video learning media cannot be created just like that. However, a supporting application is needed to process and edit the video . The Kinemaster application is one of them, which is a supporting application in processing and editing these learning videos . Utilizing the Kinemaster application is an effective alternative that teachers can use in making creative learning media videos .Kinemaster application is a software application that is used to process and edit videos and photos with complete features (Wang et al., 2019). This app was released on December 26, 2013 for the first time. Called the best video editing application because of its complete features such as support for all media, be it audio , video , text, effects, and various tools that can produce high-quality videos . Besides that, the kinemaster application is also an easy-to-use application. Therefore, the use of the Kinemaster application in making learning videos is very comprehensive (Putri & Mudinillah, 2015).

(Lestari, 2019) in (Panggabean et al., 2021)Natural Science (IPA) is one of the learning content in schools. Natural Science subjects equip students with knowledge, ideas and concepts about the natural environment, which are obtained from experience through a series of scientific processes, including investigation, preparation and ideation. (Yuniati, 2018) in (Panggabean et al., 2021)Natural Science Education can also help a person develop understanding and thinking habits, and enable students to master many life skills (Van Workum et al., 2019). The skills in question are observation, prediction and scientific attitude. Science has a long history of creating new knowledge and applying it to human life on a large scale, including encouraging the development of technology.At UPT SMP Negeri 3 Pitu Riase located on Jl. Compong Village Education, Pitu Riase District, Sidenreng Rappang Regency. Based on the interviews and observations that have been made by researchers that teachers still use conventional methods or lectures and still use subject books in the learning process so students tend to feel bored and pay less attention to existing lessons because Natural Science material is packaged less attractively (Mangaroska & Giannakos, 2019). Learning using the Kinemaster application has never been done by Natural Science teachers at the

school, this is due to the teacher's lack of knowledge in designing learning using the Kinemaster application. Based on the description above, the researcher is interested in conducting research on the use of the Kinemaster Application on Natural Science Learning Outcomes for Class VII UPT SMP Negeri 3 Pitu Riase

RESEARCH METHODS

In this study using a quantitative approach. According to Sugiyono (2018 ; 13) quantitative is a research method that is based on positivistic (concrete data), research data is in the form of numbers that will be measured using statistics as a counting test tool, related to the problem being studied to produce a conclusion (Reffiane et al., 2019). This study uses an experimental research type that will examine the effect of using the Kinemaster application on the learning outcomes of Natural Sciences for class VII UPT SMP Negeri 3 Pitu Riase.Variable free (X) on study This is Use Kinemasterapplication as tool help in process learning.Dependent variable (Y) on study this is Results Study UPT State Middle School Natural Sciences 3 Riase Pits (Kurniawan et al., 2019). Definition Operational For provide an explanation of the variables selected in the study, following will given definition operational variable .Which used in study.Kinemaster is an application that can be used with a smartphone that is useful for editing various interesting (Padang et al., 2023).Learning outcomes are the results achieved by students after the learning process, which describe student mastery on indicators about materialPopulation is one of the essential things in A quantitative research. According to (Sugiyono, 2013)population is a generalization area consisting of: objects / subjects that have certain characteristics and qualities that are set to be studied by researchers and then conclusions are drawn.To clarify the scope of this research, it is necessary to state the definitions of the terms used as follows (Guess et al., 2020): Application Powtoons is application presentation Web- based used in study this. Learningoutcomes are the values that students will get after taking the test at the end of learning.Science is a compulsory subject at the senior high school level which is the focus of this research.

Population is one of the essential things in a quantitative research. According to (Sugiyono, 2013)population is a generalization area consisting of: objects / subjects that have certain characteristics and qualities that are set to be studied by researchers and then conclusions are drawn.

The population used was class VII UPT SMP Negeri 3 Pitu Riase

Table 3.1 State of the Population

NO	Class	Man	Woman	Amount
1	VIIA	7	8	1 5
2	VII B	7	7	1 4
	Total	16	1 5	29

(Data source UPT SMP Negeri 3 Pitu Riase)

The sample is part of the population. According to (Sugiyono., 2019) the sample is part of the number and characteristics of the population. Meanwhile, according to S Arikunto, 2014 in (Padang et al., 2023) the sample is part of or representative of the population studied by the researcher.So it can be concluded that the sample is part of the entire population that has certain criteria to be studied (Irwandani et al., 2019). The sampling technique used is saturated sampling. This sampling technique is carried out when all members of the population are used as samples (Hikmi et al.,

2020). So in this study the researchers took all the population to be sampled (Crawford & Serhal, 2020), namely as many as 29 students.

Details of the number of samples can be seen in the table as follows:

Table 3.2 Sample conditions

No	Class	Sample
1	Experiment	1 5
2	Control	1 4
	Total	29

Data source: UPT SMP Negeri 3 Pitu Riase (Observation 21 January 2022)

So the sample for this study were 29 students from class VII UPT SMP Negeri 3 Pitu Riase (Estacio et al., 2019). The sample results were divided into two groups, namely the experimental and control classes.

Engineering Data Collection Techniques in data collection used in this study , namely as follows : Observations were made to collect data about UPT SMP Negeri 3 Pitu Riase students through direct observation.

The test used is a multiple choice test of 30 numbers to measure student learning outcomes in the subject of Natural Science Class VII UPT SMP Negeri 3 Pitu Riase use test Where tests performed _ after learning .

Documentation

Attendance documentation is used to obtain data about the number of students in class VII UPT SMP Negeri 3 Pitu Riase.

Engineering Data Analysis

In engineering This The collected data were analyzed using descriptive statistical techniques in the mean form . As for the steps to analyze the data is the results of student tests used to determine the classification of student scores.

The score is converted to a value in the formula under:

$$N = \frac{SP}{SM} x$$

Source: Arifin (2012:96)

Figure 3.1. Student scoring convention

Information:

N = Value

SP = Acquisition Score of Each Student

SM = Maximum Score

100 = Standard Score

To find out whether there is an effect of using the Kinemaster application learning media on social science learning outcomes for class VII UPT SMP Negeri 3 Pitu Riase students.

Then the mean formula is used as follows:

$$M_y = \frac{\sum f_y}{N_y} \qquad M_x = \frac{\sum f_x}{N_x}$$

Source: Arifin (2012:96)

Information :
Mx = Symbol Mean X
My = Mean Y symbol
x = Variable Value x
y = Variable Value y
∑fx = The number of frequencies of each individual value x
∑fy = Number of frequencies of each individual y value
Nx = Number of Individuals X
Mrs = Total Individual Y.

RESULTS AND DISCUSSION

The research was carried out in class VII A and VII B. The class was a sample from class VII UPT SMP Negeri 3 Pitu Riase which was selected (Sieck et al., 2021). In this study it will be divided into 2 groups, namely the experimental group which in the learning process will use Kinemaster Media and the Control Group where in the process of learning activities do not use Kinemaster or use Conventional learning (Van Deursen, 2020). After carrying out the learning process the two groups were given a test.

From the results of research conducted using documentation and multiple choice tests as data collection instruments (McGuinness & Fulton, 2019), the following results are obtained:

Data variable X, is data on science learning outcomes using Kinemaster Media (Experimental Group)

Variable data Y, is data on science learning outcomes that do not use Kinemaster or use learning Conventional (Control Group).

To facilitate the analysis process, the collected data will be presented first and then analyzed, then proceed with testing the hypothesis using statistical techniques as follows:

Table 4.1 Scores and Scores of Science Learning Outcomes Experiment Group

No	Sample Code	Score	Mark
1	AF	24	80
2	E	20	66
3	HA	26	86
4	HS	25	83
5	HE	23	76
6	JA	27	90
7	K	26	86
8	M	27	90
9	Mr	24	80
10	MA	26	86
11	M	28	93
12	R	24	80

13	RI	23	76
14	SN	28	93
15	Z	26	86

Data Source: Student Project

From the results of studying natural sciences in the Experimental Group above, it shows that none of the students got a score of 100 (Solomon & Rudin, 2020). The highest score was 93, then the lowest score was 66.

Furthermore, table 4.2 below presents the results of the project obtained by the control group of class VII UPT SMP Negeri 3 Pitu Riase.

Table 4.2 Scores and Scores of Control Group Science Learning Outcomes

No	Sample Code	Score	Mark
1	AD	18	60
2	AH	19	63
3	AL	20	66
4	E	16	53
5	I	23	76
6	KH	24	80
7	MG	20	66
8	N	21	70
9	NS	24	80
10	RA	20	66
11	hospital	21	70
12	SS	25	83
13	BC	20	66
14	W	23	76

Data Source: Student Project

Based on table 4.2 of the control group above, the highest score obtained was 83 and the lowest value was 53.

Based on the results of learning social science in the experimental group and the control group in tables 4.1 and 4.2, it shows that the highest score obtained by the experimental group was 93 and the lowest score was 66 while the highest score obtained by the control group was 83 and the lowest score was 53. From the results learning natural science in the experimental and control groups will be compiled in the following table:

Table 4.3 Study results of the Experimental Group and the Control Group

No	Mark	Group experiment	Group Control

1	93	2	-
2	90	2	-
3	86	4	-
4	83	1	1
5	80	3	2
6	76	2	2
7	70	-	2
8	66	1	4
9	63	-	1
10	60	-	1
11	53	-	1
		15	14

Data Source: Obtained Results from
Tables 4.1 and 4.2

Data Analysis

To find out whether there is an influence of using the application Kinemater to results study Science Knowledge Natural student Class VII UPT SMP Negeri 3 Pitu Riase (Dunn & Hazzard, 2019), then data results Study second group will processed And analyzed in table calculation mean as following.

Table 4.4 T.Test Work

Group Experiment			**Results Study**	**Group Control**		
fy^2	*Fx*	F	X/Y	F	*Fy*	fy^2
17,298	186	2	93	-	-	-
16,200	180	2	90	-	-	-
29,584	344	4	86	-	-	-
6,889	83	1	83	1	83	6,889
19,200	240	3	80	2	160	12,800
11,552	152	2	76	2	152	11,552
-	-	-	70	2	140	9,800
4,356	66	1	66	4	264	17,424
-	-	-	63	1	63	3,969
-	-	-	60	1	60	3,600
-	-	-	53	1	53	2,809
105,079	1,251	15	∑	14	975	68,843

Data Source: Processed from table 4. 3

The mean of the experimental group (X) and the control group (y) with the formula:

$$Mx = \frac{\sum FX}{Nx}$$

$$M x = \frac{1.251}{15}$$

$$= 83.4$$

$$my = \frac{\sum Fy}{Ny}$$

$$My = \frac{975}{14}$$

$$= 69.64$$

Based on the calculation above, it was found that the test results in the control group given by students had an average score of 69.64 and the average score obtained from the test results in the experimental group was 83.4 (Tieman, 2020). The difference can be seen that the experimental group test using Kinemaster media has a higher score than the control group test using conventional learning .

This can be an indication of the influence of using Kinemaster media on the science learning outcomes of class VII UPT SMP Negeri 3 Pitu Riase which is taught using books in the learning process and which is taught using Kinemaster media (Chandrasekar et al., 2020). Thus it can be seen that the Kinemaster media Which used to really help students in learning the material presented, therefore Kinemaster media has a positive influence on students.

Discussion Results Study

The purpose of this research is to find out whether the Kinemaster application influence on the learning outcomes of class VII students at UPT SMP Negeri 3 Pitu Riase (Bhatti, 2019), by taking samples from 29 students of class VII UPT SMP Negeri 3 Pitu Riase. Students from the experimental and control groups in identification using saturated sampling method.

Class VII students of UPT SMP Negeri 3 Pitu Riase who uses the Kinemaster application in the learning process is better than students who carry out the learning process without using the Kinemaster application (Tubagus et al., 2020), according to research findings comparing learning outcomes (Alhammadi et al., 2020). Given students' final exam scores, the findings of these studies are comparable.

The consequence of this rejection is the value hypothesis which states that there is no effect of using the Kinemaster application Regarding Learning Outcomes in Natural Sciences Class VII Students of UPT SMP Negeri 3 Pitu Riase " rejected "

Thus it can be concluded that the Kinemaster application can have a beneficial impact on learning outcomes in subjects Knowledge Knowledge Natural class VII UPT SMP 3 Pitu make up . This is shown by the student learning outcomes which are quite good when compared to student learning outcomes where Kinemaster not used in learning activities.

CONCLUSION

After conducting research and analysis, the writer in this stage presents several conclusions based on the formulation of the problem that has been determined. The conclusions are as follows: 1. The use of Kinemaster media in the learning process has an influence on students' science learning outcomes class VII UPT SMP Negeri 3 Pitu make up . this _ Because with using Kinemaster media , guru and student can do the learning process teach with more easy And convey information to good and interesting students . Based on the research results, in accordance with testing the hypothesis through data analysis, the average value was obtained, namely M x = 83.4 > M y = 69.64. This means difference the average value show exists influence use of Kinemaster media to results learn science students class VII UPT SMP Negeri 3 Pitu make up . Results analysis

with test end show that taught students _ using Kinemaster Media impact positive compared with student Which taught by using conventional learning (package book)

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