The Impact of Video Learning Media on School Students ' Learning Activeness Base

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ABSTRACT

The study aims to find out the effectiveness of using video learning media on the activeness of students' science learning at Banyubiru 1 State Elementary School. This study uses an experimental research type with a *Quasi Experimental design of the Nonequivalent Control Group Design* type . The population of this study was 30 and the sample used was grade IV students of Banyubiru 1 Elementary School. 15 students of grade IV A as an experimental class using video learning media and IV B as a control class using conventional learning models. The data collection methods used were observation, testing and documentation. With the technical power analysis used, namely the prerequisite test using the normality test and the homogeneity test, followed by the hypothesis test using the t-test and the N-Gain test. The results of the study in the experimental group can be said to be active if the value of student activity in participating in learning, namely 90 <×≤ 100the category of very active, 80 <×≤ 90active category, 70 <×≤ 80quite active, and 0,00 <×≤ 70less active. , shown by the results of the assessment in the experimental class, namely the use of video learning media increases student activity as seen from the results obtained an average of 82 and is included in the active category while in the control class the value of activity obtained is 61 and is included in the less active category. Where the control group did not show any activity figures. In the results of the experimental group study , the average *pre-test score* was 57 and the *post-test score was 86. In the control group, the average pre-test score was 52 and the post-test score was 63. Where the control group did not show any activity figures.* In the results of the experimental group study, the average pre-test score was 57 and the post-test score was 86. In the control group, the average *pre-test score* was 52 and the *post-test score* was 63. Where the control group did not show any activity figures. In the results of the experimental group study, the average *pre-test* score was 57 and the post-test score was 86. In the control group, the average *pre-test score* was 57. score average *pre-test 52 and post-test* score 63. Data processing techniques using t-test with video learning media are more effective with a sig. value of 0.000 <0.05 and N-Gain Test percent 84.3766 .

Keywords : *Learning Media, Video learning media, IPAS learning activity*

1. INTRODUCTION

Recent technological developments that are increasingly advanced and sophisticated have an impact on every aspect of life, including learning media. increasingly advanced and modern innovations have an impact on every aspect of life, including learning media. Therefore, many people believe that the use of innovation makes their work less demanding, can be implemented, interesting, faster and more efficient. The use of innovation in learning is an option to improve the quality, quantity and activity of learning. In order for learning activities to empower dynamic learning in students, learning, especially science and social studies, must be planned to have an impact on all aspects of life, including learning media. Therefore, many people believe that the use of technology makes their work simpler, more practical, more efficient, faster and more efficient. The use of innovation in teaching is an option to improve the quality, quantity and activity of learning. In order to organize learning exercises that can spur dynamic learning among students, learning must be planned in such a way, especially in science and social studies subjects.

Basically, Natural and Social Sciences is a combination of IPA (Natural Sciences) and IPS (Social Sciences) subjects in the Independent Curriculum. The combination of education is a form of adjustment to the development of science and technology so that students

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can face challenges in the future (Ministry of Education and Culture of the Republic of Indonesia, 2022). IPA learning in elementary schools is expected to encourage students to understand and observe natural conditions . In other words, there is a process of learning science and technology in elementary schools to form basic skills and it is hoped that students can actively discuss, dare to express opinions, be able to accept other people's opinions, be able to analyze a problem, and be able to write and convey the results of their work.

Science learning is a core subject in the curriculum in Indonesia and is always given at every level of education so that science needs to be developed in every learning (Kusuman et al., 2020; Muyaroh, 2018). Therefore, this needs to be created in science learning in elementary schools that can encourage students to be more active, curious in finding a concept. However, students in learning science only as a product, memorizing theories, concepts and laws (Awe & Bage, 2017; Putra, 2017). As a result, science in the process, attitude and application are still inadequate in learning.

There is common problems appear in science field . As seen in students Class IV of Banyubiru Elementary School, results bad study due to lack of enthusiasm and interest student in activity learning , which causes student not enough pay attention to the teacher when explain curriculum about energy and its changes . Participation student in activity learning very minimal. Just a little students who responded teacher's questions . Likewise when the teacher gives bait come back to class , no There is not one student submitted question about idea main lesson . Problems This similar with study previously found weakness in method teaching traditional methods used by science instructors (Wahyuningtyas & Sulasmono , 2020). Instructors Not yet involving student with Good in learning active and creative . In addition , a number of big educator Still very depends on the book text For teaching and learning (Sudana , 2018; Tias 2017). Many teachers still do Not yet carry out activity considered learning aspects of science and interests Study students (Nugroho Widiantono , 2017; Nuraini & Kristin 2017). Problems learning that is only depend on source learning has also been Lots mentioned in a number of research (Ni Kt. Dewi Muliani, 2019). This is can limit skills students who ultimately will influence results learning science. Learning become passive consequence student No can participate in a way active in the learning process .

Utilization of video media in science learning can it is said can increase quality learning , especially for elementary school students , because problem This also happened at SDN Banyubiru 1, such as problem level intermediate others that often occurred in several elementary schools in Indonesia, such as understanding concept and results Study students (Supryadi et al ., 2013). Research This aiming For know whether use video teaching materials in dynamic science learning for students of Banyubiru 1 Elementary School have adequate .

Video as a learning media in a continuous process. There are several subsystems including: (a) Teachers, (b) Students, (c) Learning Media, (d) Learning methods, (e) Learning objectives, (f) Learning resources, (g) Facilities and infrastructure, (h) Environment. However, if one of the subsystems is not optimal, such as in providing learning media, teachers do not use, select, prepare good facilities for the teaching process, that in the delivery through the facilities used cannot be well received by students. This will have an impact on learning and student learning activity.

2. METHOD

This study is an experimental research that aims to examine the effect of using experimental methods on student learning activity in the subject of science for grade IV at SD Negeri Banyubiru 1. This study uses an experimental approach where all phenomena that can be observed, measured and presented are in the form of numerical data. Data analysis was carried out using statistical techniques, namely the t-test and the N-Gain Test.

The type of experiment applied is a quasi - *experimental* with a *nonequivalent control group design* . In this design, sample selection is not done randomly, but is determined directly by the researcher, so that the experimental group and control group are selected according to research needs. Data are collected through several methods, namely observation, testing, and documentation .

3. RESULTS AND DISCUSSION

The problem in this study is about the effectiveness of using Video learning media on the activeness of learning science in grade IV students. This study was conducted at SD Negeri Banyubiru 1 in class IV A as an experimental class using video learning media and in class IV B as a control class using conventional methods in learning science. The material taught in both classes in this study was energy transformation which was carried out in 2 meetings, the first meeting was the distribution of *pretest* and introduction questions, the second meeting was the learning and distribution of *posttest questions* on student learning activity in the subject of science, energy transformation material. During learning in the experimental class using video media, the researcher also

used an observation instrument as a reference in carrying out the phases of the learning process using video learning media.

1.1 The Influence of Using Video Media on Learning Activity

Data analysis shows that the experimental group and the control group obtained an average score of 86 with the highest score of 95 and the lowest score of 57 for science learning activities on the material of energy changes at SD Negeri Banyubiru 1. The control group using the conventional method obtained an average score of 63 with the highest score of 70 and the lowest score of 55.

Both from the normal values before and after the science test, as well as the cognitive science learning achievements of the two groups above, it can be seen that the increase in normal learning achievements of the experimental group is more visible than the control group. Science materials are easier to present in a concrete way so that students are more involved, and videos show a deeper understanding of the concepts presented through the media. These factors cause an increase in the average value of student learning achievements in the material on energy changes. In fact, elementary school students can understand it. Chalmer's research (A. Kurniawati, et al., 2013: 154) suggests that in order to be understood, it does not have to describe something real, but can be replaced with an object that can describe the function of the object.

The practice of students of Banyubiru 1 Elementary School during the preparation of learning is seen in order to realize learning through video learning media. Regarding student movements during the preparation of learning, an explanation is given. The majority of students pay attention to the teacher's explanation, based on the results of observations of their actions in the test group (course) when working on learning assignments. The majority of students show high enthusiasm for learning through video sources. This is shown by the joy and enthusiasm of students when listening to recordings of learning and group discussions. A number of students quickly ask and respond to questions when other groups present the results of their discussions.

The control group was taught in a traditional way, such as lectures. Before learning with centers, Sadikin and Wijayanti became teachers. Vidyana (2016). There is still a lot of monotony in the learning exercises carried out. Researchers occasionally ask students about topics or ask them questions. Therefore, learning is focused on paying attention to and documenting the material presented by the instructor. Therefore, students' activity, enjoyment, creativity, and cognitive abilities are higher during test learning compared to control learning. The teaching and learning process in the classroom is supported by learning media in learning activities. Because messages are communicated through media (Dewi & Handayani, 2021; Suryana & Hijriani, 2021).

Observations of learning activities with video learning materials revealed that certain students performed well on the post-test. Because education does not seem boring, students do not get bored. Learning videos have a significant impact on students' understanding of the subject matter and facilitate meaningful learning. Watching movies increases students' interest, improves their memory, and makes them less likely to get bored. Learning films can also improve students' understanding of the subject matter and increase their engagement and enthusiasm (Heo & Toomey, 2020; Tegeh et al., 2019; Yusnia, 2019) .

This study adds a new perspective compared to previous studies. Most previous studies have only focused on the impact of video media on learning outcomes in general, without looking specifically at its influence on student activity. This study fills this gap by showing that in addition to influencing material understanding, video media also plays an important role in increasing student activity and participation. Student activity in science learning is important because it can encourage them to think critically, ask questions, and explore, which are integral parts of science learning. In addition, the novelty of this study is the context of its application which was specifically carried out at Banyubiru 1 Elementary School. In this context, it was found that video media that was made interesting and appropriate for the age of elementary school children could arouse a higher sense of curiosity. This also shows that interactive and visual learning media have a positive impact, especially for students studying at the elementary school level, where curiosity and direct interaction are very important in building an initial understanding of science.

1.2 Effectiveness of Using Video Learning Media on the Activeness of Learning Science in Energy Transformation Material

The effectiveness of using video learning media on students' learning activity is quite significant with the difference in student learning outcomes that only use conventional methods with learning scores using

video learning media. The application of learning using video media uses phases in the observation sheet that have been adjusted to the learning process that has been proven to increase student activity in the science subject on the material of energy transformation.

Based on the results of the t-test and the N Gain test, with the t-test that has been carried out with a significance level of 0.05 using SPSS 20 *software* , it was obtained that the use of video learning media is more effective than not using video learning media (conventional) on student learning activity in learning science on energy transformation material. In the experimental group and the control group, it has exceeded the Learning Objective Achievement Criteria (KKTP) that has been set, namely 75. With the use of video learning media, it is more effective with Sig. 0.000 <0.05. The N Gain test with the N Gain score classification of 0.8882 >0.7, the category obtained is high, which means that the effectiveness of using video learning media is high in SD N Banyubiru 1, while the N Gain Percent obtained is 84.3766% with the interpretation category in the form of a percentage of >76%, it can be said that the N-Gain score interpretation is effective.

Table 1 Sample T-test Results

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Hasil_belajar	Equal variances assumed	.117	.735	1.864	28	.000	6.333	3.397	-.625	13.292
	Equal variances not assumed			1.864	26.085	.000	6.333	3.397	-.648	13.315

Table 2N Gain Test Results

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Ngain_score	15	.60	1.00	.8882	.11546
Ngain_persen	15	57.00	95.00	84.3766	10.96903
Valid N (listwise)	15				

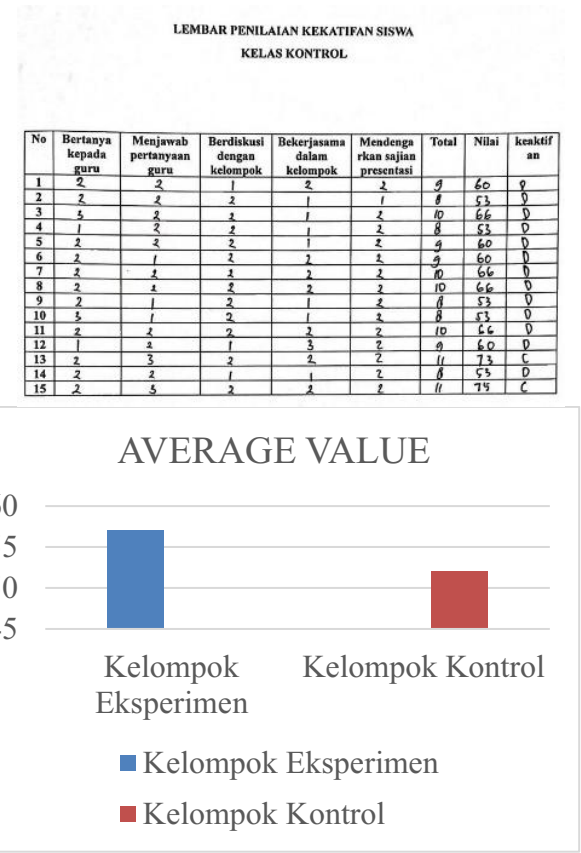
Learning reluctantly using video learning media provides positive participation will levels students' understanding of the material presented as well as teaching excessive means . Through video media, students get more visual images that can be embedded in their memories.

In this thought, the analyst gave a pretest to both bunches as a step after seeing the information of the test bunch. The test conducted was a learning outcome test in the context of a multiple-choice test of vitality transformation material carried out by 15 students in lesson VI A (test bunch) and lesson IV B (control bunch). This can be seen in the following table.

Table 3. Results (Pre-test) Group Experiment as well as Group Control

No	**Class**	**Total participants educate**	**Average**
1	IV A (experiment)	15	57
2	IV B (control)	15	52
Total		30	109

In the findings of statistical estimation, the average score of the first test (pre-test) of the experimental group and the control group was 57 (fifty seven) and 52 (fifty two). The following is presented in the form of the following histogram (Figure 4.1).



LEMBAR PENILAIAN KEKATIFAN SISWA
KELAS KONTROL

No	Bertanya kepada guru	Menjawab pertanyaan guru	Berdiskusi dengan kelompok	Bekerjasama dalam kelompok	Mendengarkan sajian presentasi	Total	Nilai	keaktifan
1	2	2	1	2	2	9	60	D
2	2	2	2	1	1	8	53	D
3	3	2	2	1	2	10	66	D
4	1	2	2	1	2	8	53	D
5	2	2	2	1	2	9	60	D
6	2	1	2	2	2	9	60	D
7	2	2	2	2	2	10	66	D
8	2	2	2	2	2	10	66	D
9	2	1	2	1	2	8	53	D
10	3	1	2	1	2	8	53	D
11	2	2	2	2	2	10	66	D
12	1	2	1	3	2	9	60	D
13	2	3	2	2	2	11	73	C
14	2	2	1	1	2	8	53	D
15	2	3	2	2	2	11	73	C

Figure 1. Histogram of Pre-test Results for Experimental Group and Control Group

The treatment was carried out on the experimental group, namely class IV A of SD N Banyubiru 1. The treatment in this study used YouTube video media and was carried out in chapter 4 of science learning about energy conversion. To conduct this study, the researcher prepared a teaching module as teaching material and discussed it with the teacher of Class IV SD N Bagneville 1. Furthermore, we prepared the learning devices that would be used during the teaching and learning process. The researcher provided treatment in two sessions, with two JPs participating in the first session and two JPs participating in the second session. The researcher also observed student actions during learning using the experimental method with learning videos. In class IV B SD N Banyubiru 1, therapy was given to the control group. Conventional approaches such as lectures were used in science learning activities in chapter 4 with energy transformation material. Two meetings, namely the first meeting with two JPs and the second meeting with two JPs, were carried out as part of the control group learning process. The researcher also observed how students were involved in this learning process .

In his perception, the exploratory learning strategy is used by using video learning media, while in routine learning, especially addresses, researchers watch students' exercises during learning preparation. This perception arises when viewing the test bunch and the control bunch. This perception is carried out with the aim of finding out whether the method that has been prepared has been implemented or not. In this study, the analyst received support from the lesson instructor. The lesson educator continued to accompany the instructor in this investigation to act as an audience.

1) Findings observation Student Group Activity Experiment

observation findings in student activity in group experiment poured out on picture following This :

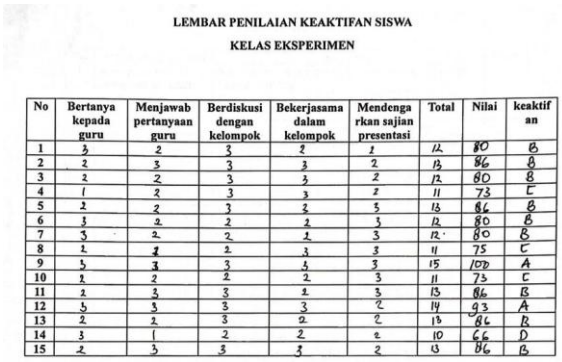
Based on the results of observations conducted by researchers in the experimental group, it can be concluded that the results of observations of student activity are measured from several aspects such as student readiness, curiosity, interaction with teachers, enthusiasm for participating in learning, asking teachers, answering teacher questions, discussing with groups, working together with groups, and listening to presentations. The results of the study in the experimental group can be said to be active if the value of student activity in participating in learning, namely the $90 < x \leq 100$very active category, $80 < x \leq 90$the active category, $70 < x \leq 80$quite active, and $0{,}00 < x \leq 70$less active. , indicated by the results of the assessment in the experimental class, namely the use of video learning media increases student activity as seen from the results obtained an average of 82.

2) Findings observation Student activity in the control group

Findings observations on student activity in the control group are presented on picture following This :

Based on findings observations carried out by researchers on the control group, can In conclusion , it can be concluded that the results of observations of student activity are measured from several aspects such as student readiness, curiosity, interaction with teachers, enthusiasm for participating in learning, asking teachers, answering teacher questions, discussing with groups, working together with groups, and listening to presentations. The results of the study in the experimental group can be said to be active if the value of student activity in participating in learning, namely 90 <×≤ 100the category of very active, 80 <×≤ 90active category, 70 <×≤ 80quite active, and 0,00 <×≤ 70less active. , the control class the value of activity obtained was 61 and was included in the less active category.

Results (Post-Test) on the implementation of the final test, exploration and control clusters are given after treatment. The emergence of this last test point is to



LEMBAR PENILAIAN KEAKTIFAN SISWA
KELAS EKSPERIMEN

No	Bertanya kepada guru	Menjawab pertanyaan guru	Berdiskusi dengan kelompok	Bekerjasama dalam kelompok	Mendengarkan sajian presentasi	Total	Nilai	keaktifan
1	3	2	3	2	1	12	80	B
2	2	3	3	3	2	13	86	B
3	2	2	3	3	2	12	80	B
4	1	2	3	3	2	11	73	C
5	2	2	3	2	3	13	86	B
6	3	2	2	2	3	12	80	B
7	3	2	2	2	3	12	80	B
8	2	2	2	3	3	11	73	C
9	3	3	3	3	3	15	100	A
10	2	2	2	2	3	11	73	C
11	2	3	3	2	3	13	86	B
12	3	3	3	3	2	14	93	A
13	2	2	3	2	2	13	86	B
14	3	1	2	2	2	10	66	D
15	2	3	3	3	2	13	86	B

determine the use of test strategies with instructive recordings on students' science learning exercises in the test group.

Here it is namely summary of group post-test findings experiment as well as control group .

Table 4. Results of the Final Test (Post-test) Group Experiments and Groups Control .

No	Class	Amount Student	Average
1	IV A (experiment)	15	86
2	IV B (control)	15	63
Total		30	149

From table 4.4 , the score is known the average of the experimental class is 86 (eighty six) and the control class is 63 (sixty three). It can be presented in the following histogram. (Figure 4.8)

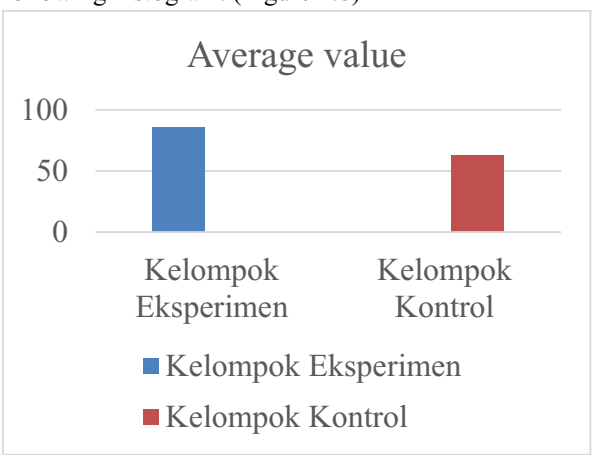


Figure 2. Histogram of Final Test Results (Post-test) Group Experiments and Groups Control

Based on table 4.4 and histogram image 4.8, there is a difference in the scores. the average achieved by the exploration group and the control group . The exploration group test increased by 29, namely from the initial test of 57 there was an increase to 86. While the control group also experienced an increase, precisely in the first test 52 to 63 There was only a difference of 11, so the increase in test findings in the control group was not as large as the increase in the control group. try.

CONCLUSION

Students of grade IV of SD N Banyubiru 1 feel the benefits of using video learning media in their learning, based on the results of the question and answer session. Based on the emergence of perceptions in exploratory learning, it can be concluded that a learning process is said to be dynamic if the value in the experimental group can be said to be active if the value of student activity in participating in learning, namely 90 <×≤ 100the very active category, 80 <×≤ 90active category, 70 <×≤ 80quite active, and 0,00 <×≤ 70less active , indicated by the results of the assessment in the experimental class, namely the use of video learning media increases student activity as seen from the results obtained an average of 82 and is included in the active category while in the control class the value of activity obtained is 61 and is included in the less active category. The t-test showing the centrality value (2-tailed) shows a measured value of 0.000, smaller than the alpha level set at 0.05, indicating that this can also be said to be a dynamic speculation test.

In addition, it can be seen from the results of the standard post-test that the use of video-based exploration strategies obtained a score of 86 with the highest score of 95 and the lowest 57, while the use of ordinary or address strategies obtained a score of 63 with the highest score of 70 and the lowest 55. In this video reflection, the results of the N Pick up test showed that the most critical value was the N Pick up Test with a classification value of 0.8882>0.7. This shows that the category obtained is classified as high, which indicates the effectiveness of the use of high video learning media in SD N Banyubiru 1. The percentage of N Pick up obtained was 84.3766% with the translation category at a frame rate> 76%, which shows that the explanation of the N-Gain score is effective.

SUGGESTION

1. For Teachers

Teachers should utilize media and apply appropriate learning models so that students are enthusiastic and active during learning, especially in science subjects. It is hoped that with more teachers utilizing video-based learning media, the quality and participation of student learning can continue to be improved.

1) For Students

Students should be more active when learning takes place and when the teacher is explaining.

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