

## The Influence of Interactive Animation Media on Students' Interest in Learning in View of Learning Results in Class IV Science Subjects at SD Inpres Kuanino 3

Rivaldo Adu <sup>1</sup>, Asti Yunita Benu <sup>2</sup>, Cornelia Amanda Naitili <sup>3</sup>

<sup>123</sup>Program Studi Pendidikan guru sekolah dasar, fakultas keguruan dan ilmu Pendidikan, Universitas Cita Bangsa, Kupang, Indonesia

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### Abstract

*The use of visual and auditory elements into the learning process may enhance its effectiveness, captivate students, and facilitate their comprehension and engagement with the topic. Educators have the power to enhance classroom instruction by doing things like creating a sense of intrinsic motivation and offering post-lesson assessments. The objective of this research was to find out whether fourth graders at SD Inpres Kuanino 3 were more engaged in studying IPAS when they used animated interactive media. The experimental quay approach is used in this quantitative investigation. A total of 49 participants were included in the study, and the sampling method utilised was nonprobability saturation sampling. Data collecting approaches involving observation, testing and documentation. The data was examined by means of a t-test and hypothesis testing. Using a t-test, the researchers found that there was a 17.59-point difference between the experimental and control groups' average post-test scores: 82.59 > 65.00. In addition, the sig value is revealed by the Independent Sample T-Test, which tests hypotheses. H<sub>0</sub> is rejected while H<sub>a</sub> is accepted when the two-sided p-value is less than 0.05. Students in SD Inpres Kuanino 3's fourth grade were shown to be much more engaged in learning when animated interactive media were used*

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### Corresponding Author:

Rivaldo

Universitas Cita Bangsa Kupang

Email : [rivaldoadu2002@gmail.com](mailto:rivaldoadu2002@gmail.com)

## 1. INTRODUCTION

The success of a nation or country depends on the quality of its human resources, including education, which is a key component in the quality of human resources. Even in the midst of intense global competition, improving the quality of human resources can still be done. Therefore, this refers to the educational objectives contained in the National Education System. The quality of a country's education system is very important because investing in its people is among the surest ways to improve the overall standard of living. Teachers, in particular, are among the most powerful agents in improving human resources because of the important role they play, the responsibility they assume in creating assignments, and the challenges they face in finding solutions.

The quantity and quality of a country's human resources that are able to adapt to the information and technological demands of the fourth industrial revolution is a component in the HR progress index (Rohida, 2018; Shite, 2018). Keeping up with existing trends requires better education in Indonesia. Students are expected to actively participate in their own learning as part of the current curriculum. Teachers are required to do more than just lead lessons; they must also account for knowledge transfer, or how students will absorb and ultimately understand the material.

The use of teaching media allows teachers to simplify difficult thoughts for their students. Apart from that, media can be seen as a channel that carries information from one source to another (Jalius & Ambyiar, 2016: 2). Media with the ability to concretize intangible thoughts are among the anticipated types of media; for example, lectures presented with animation will be more interesting, easy to access, easy to understand, and full of variety. Teachers of course benefit from the easier it is to create learning materials thanks to developments in computer technology. Learning media also functions as a basic component and complementary tool for effective education. Media in the form of interactive multimedia can be utilized, according to Kurniawati

and Nita (2018: 70). Various studies have shown that students' ability to understand complex ideas, complete assignments, and think critically can be improved through the use of interactive multimedia.

Incorporating visual and auditory elements into the learning process can increase its effectiveness, captivate students, and facilitate their understanding and engagement with the topic. Additionally, educators have the power to improve classroom teaching by doing things like creating an environment that inspires students and offering post-learning assessments.

A problem that often arises is that students tend to absorb a lot of theoretical information, but relatively little practical knowledge. Students have difficulty absorbing the material presented by teachers in class, especially in science and science classes, because class teaching is more focused on students' conceptual understanding of topics. Another factor that can influence lesson implementation is the use of learning materials that are below standard. Students in science and science classes often report that they feel bored due to the lack of interesting material used in class (Sulthon, 2017: 53).

Due to a lack of understanding, the majority of students consider IPAS to be boring education. Therefore, it is the responsibility of teachers to interest their students in learning by making connections with the real world. A person's interest will be piqued when they pay attention to something, which in turn will increase their curiosity and encourage them to seek out more information. As a tool in learning planning, teachers must feel comfortable with media and be proficient in conveying complex ideas in various formats (Ariyanti et.al., 20021:77).

Motivating yourself academically is very important for students. It is expected that students will strive to achieve good results, as learning becomes more challenging as their interest in the subject matter wanes. It's not just the teacher who is to blame when students are not interested in learning, but there are several factors that play a role. These considerations include both internal and external components. That is the reason why students are not interested. If these various factors, such as learning media, facilitate learning, students will not have difficulty following lessons and can make it easier for them to accept what is conveyed by their teacher (Baringbing et al., 2022).

Researchers who researched science and science learning reported that students' motivation in studying science and science subjects was relatively poor based on the first observation conducted on 23-30 October 2023 at SD Inpres Kuanino 3. Students were not actively involved in their own learning because the teachers mostly only explained and rarely use learning media. Teachers also rely heavily on textbooks for their students' education. Students in science classes appear disengaged, distracted, and unmotivated to learn. In addition, even though the minimum score for science topics is 70, there are still many students who have not achieved the score needed to graduate. Of the 49 students, only 20 (40.81%) had fulfilled the KKTP (Minimum Completeness Criteria), while 29 (58.18%) had not. This shows that a large number of students still have not met the completeness of the learning objectives. This situation reduces the significance of learning, and has the potential to reduce students' enthusiasm in studying science, which ultimately impacts their final grades. At SD Inpres Kuanino 3, students are not very interested in learning, and this is partly due to the school's ineffective use of learning materials.

With this context, researchers came to the conclusion that the use of learning media by teachers has an impact on student learning motivation. Therefore, researchers are interested in conducting a study with the title "The Influence of Interactive Animation Media on Interest in Learning in View of Student Learning Results in Class IV Science Subjects at SD Inpres Kuanino 3".

## 2. RESEARCH METHOD

In this study, researchers applied an experimental approach methodology to conduct quantitative research. A total of 49 participants were included in this research, and the sampling method used was nonprobability saturation sampling. Data collection approach involving

observation, testing and documentation. The t-test and hypothesis testing were used to evaluate the data.

### 3. RESEARCH RESULTS AND DISCUSSION

#### 3.1. Research result

The following table displays the results of the student discipline survey:

**Table 1.** Experimental Class Learning Results

Statistics			
		pretest Let's experiment	post Let's experiment
N	Valid	27	27
	Missing	0	0
Mean		52.59	82.59
Median		50.00	85.00
Mode		45	85
Variance		98.789	69.943
Range		35	30
Minimum		40	70
Maximum		75	100
Sum		1420	2230

Before receiving treatment, students in the experimental class took a pre-test with an average score of 52.59. This allows teachers to measure students' initial abilities. After engaging with animated interactive media during class, students were given a post-test with 20 multiple choice questions and evaluation using SPSS 29.0.2.0 for Windows. The average post-test score for the experimental class was 82.59.

**Table 2.** Control Class Learning Results

		pretest control	post control
N	Valid	22	22
	Missing	0	0
Mean		46.82	65.00
Median		45.00	65.00
Mode		35 <sup>a</sup>	65
Variance		101.299	47.619
Range		35	25
Minimum		35	50
Maximum		70	75
Sum		1030	1430

The data in the table shows that the VB class at Citra Bangsa Christian Elementary School achieved a validity of 24, an average score of 86.04, a maximum score of 94, and a minimum score of 78 as a result of implementing discipline, especially by making it difficult for students to break the rules when coming to and leaving school. .

#### Normality Test

The normality test examines whether the student questionnaire data is distributed regularly or not. Statistical calculations indicate that the data is normally distributed if the Sig value.  $< \alpha$  for normality testing with a confidence level of  $\alpha = 0.05$ . The following table displays the results of the student questionnaire normality test:

**Table 3.** Normality Test

	Class	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
		Statistic	df	Say.	Statistic	df	Say.
Learning outcomes	Experimental Pretest	.195	27	.009	.897	27	.011
	Post-Test Experiment	.132	27	.200*	.948	27	.189
	Pre-Test Control	.168	22	.108	.925	22	.098
	Control Posttest	.227	22	.004	.920	22	.078

The results from the normality test showed that the significance level of post-test learning outcomes from the control class was 0.078, whereas the experimental class was 0.189, which means that the total probability value exceeded 0.05.

### Homogeneity Test

**Table 4.** Homogeneity Results

		Levene Statistic	df1	df2	Say.
Student Learning Results	Based on Mean	2.218	1	47	.143
	Based on Median	1.688	1	47	.200
	Based on Median and with adjusted df	1.688	1	46.369	.200
	Based on trimmed mean	2.113	1	47	.153

To ensure data homogeneity, researchers can compare the post-test results of the two classes. There is a probability value of 0.143 which exceeds 0.05, in accordance with the Test of Homogeneity of Variance table, which shows homogeneity testing. Based on the findings mentioned previously, the experimental class can apply a strategy, namely implementing animated interactive material.

The homogeneity data mentioned previously shows that the two classes have the same variance, which indicates that there is no difference between the two and that the data is normal and has the same variance. Everyone in both classes is as good or as bad as everyone else; there is no visible difference between fast students and slow students.

### Hypothesis Testing

In deciding whether to reject or accept  $H_a$ , hypothesis testing uses a significance threshold,  $H_a$  is accepted if the significance level exceeds 0.05, conversely  $H_0$  is rejected if it is less than 0.05. To test the difference in means, an Independent Sample T-Test is needed.

**Table 5.** Hypothesis Results

		Levene's Test for Equality of Variances		t-test for Equality of Means					
		F	Say.	t	df	Significance	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference

						One-Sided p	Two-Sided p			Lower	Upper
Student Learning Outcomes	Equal variances assumed	2.218	.143	7.910	47	<.001	<.001	17.593	2.224	13.118	22.067
	Equal variances not assumed			8.068	46.987	<.001	<.001	17.593	2.181	13.206	21.979

Based on the data in table 4.9, the average post-test learning outcomes for the experimental class reached 82.59 while for the control class it reached 65.00. This means there is a difference of 17.59 points between the post-test mean scores of the two groups, indicating that the experimental group had better results overall. The post-test results were averaged for the experimental group and the control group. The substantial impact of animated interactive media on learning outcomes was then tested through the Independent Sample T-Test. Hypothesis test findings in table 4.10 The t-test, especially the sig value, shows that animated interactive media significantly influences the learning interest of fourth grade students at SD Inpres Kuanino 3. It can be seen from the significant results that the value is smaller than 0.05 in t-test 2 side is carried out with the assumption of the same variance, namely rejecting  $H_0$  and accepting  $H_a$ .

### 3.2. Discussion

Based on the results of this quasi-experimental research, the aim of this research is to compare the effect of traditional learning models with animated interactive media on students' ability to remember information. The influence of animated interactive media on students' interest in learning at SD Inpres Kuanino 3 has been found, based on the data that has been collected. All fourth-grade students were divided into two groups for this study. Animated interactive media was used experimentally, while the control group relied on traditional learning techniques. Various analyzes demonstrate the importance of student learning outcomes, leading to the research conclusions.

Sig value. (2-side) was found to be less than  $\alpha$  in hypothesis testing using the t-test in SPSS version 29 using the Independent Sample T-Test so that the hypothesis could be accepted. After that, students are given a post-treatment test to measure their level of understanding after being exposed to traditional learning models or animated interactive media.

A number of conclusions have been drawn from calculations that have been evaluated using the SPSS 29 program. One of them is the fact that the science learning outcomes of the two groups are significantly different before and after the intervention. This is due to the fact that, in contrast to more traditional methods, animated interactive learning media places greater emphasis on learning tasks designed to ensure that students fully understand the subject matter. The average value of student learning outcomes shows this. A better mean score of 82.59 was achieved at the follow-up assessment. In addition, the control group who received traditional teaching had an average IPAS score of 65.00.

This proves that the two sets of students' final grades are different. The second result is based on inferential statistics using homogeneity tests, hypothesis tests and normality. The results of SPSS version 29 Independent Sample T-Test to test the hypothesis show that student learning outcomes are less than 0.01, confirming the acceptance of the null hypothesis that there is no median effect of interactive animation on students' learning interest at SD Inpres Kuanino 3.

This shows that students who learn using animated interactive media are much more engaged in IPAS than those who learn in more traditional ways. Different treatments provide variety, which in turn influences students' motivation to learn. Interest in professional development among educators is also influenced by these issues. When students pay close attention during the continuous discovery and proof stages because of a sincere desire to understand and learn, Ariyanti (2021: 78) says that they are interested. Attention increases the

need to know, understand, and prove more about a matter, which in turn increases the presence of interest. The ability to effectively prepare engaging content and media for use in the classroom is essential for every educator.

This hypothesis suggests that students will be more engaged in their learning if their teachers are skilled in managing the learning process and utilizing learning resources effectively. For example, one way is to include animated interactive media into learning activities. Researchers in the past have used animated interactive media extensively, and their findings show that this media can increase student engagement with the material.

Furthermore, in line with the findings of research by Asmayani et al. (2023) that students had an average score of 78.5 on the pre-test and an average score of 89.65 on the post-test after receiving animated interactive media treatment. With a paired sample test value of  $89.65 > 78.5$ , it can be concluded that the results were statistically significant between the pre-test and post-test. Fifth grade students at UPT SPF SD Negeri Kalukuang II Makasar were proven to have the influence of animated interactive media on their interest in learning, as shown by the t test results of  $0.001 < 0.005$ .

Students in the experimental class who received animated interactive media treatment showed a real increase in their engagement with the lesson material, paying more attention and actively participating in the learning process through questions and discussions. The research results show that the experimental class outperforms the control class in terms of learning outcomes, and it is clear that the use of interactive media increases students' enthusiasm for learning. Fourth grade students at SD Inpres Kuanino 3 benefit from animated interactive media both in terms of enthusiasm for learning and their performance in achieving learning goals. Therefore, science and science subjects in particular can benefit from animated interactive media as an alternative means of improving the quality of teaching.

#### 4. CONCLUSION

The findings from research in class IV of SD Inpres Kuanino 3, together with data analysis and management, as well as the formulation that has been given, allow researchers to draw the following conclusions:

Both the experimental group and the control group of science students showed increased interest in learning when exposed to animated interactive media; the experimental group had a mean of 82.59 and the control group only 65.00. Based on these findings, the experimental group outperformed the control group.

Therefore, it shows that the two groups of students achieved different levels of knowledge acquisition. Statistical analysis of the second test includes the results of homogeneity, hypothesis and normality tests. By utilizing SPSS version 29 and the Independent Sample T-Test, researchers can test the hypothesis which states that there is an influence of interactive animation media on students' interest in learning at SD Inpress Kuanino 3. Because student learning outcomes were obtained at 0.01 for this test, it can be concluded that the hypothesis was accepted.

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