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Evaluation of the Impact of Video Media on Students' Science Learning Outcomes

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ABSTRACT

The increase in data innovation and correspondence is fundamentally affecting several areas of an individual's life. But the reality is that at this time, there are still many educators who have not been able to carry out a learning process that can develop students' thinking skills by using various media due to the learning process, both online and offline learning. The purpose of this research; to find out the description of the use of VIPE media on science learning and the effect of using VIPE media on learning outcomes. This research approach uses quantitative research with a quasi-experimental type. The population in this study was 180 students using *purposive sampling*. The data collection techniques use observation, tests, and documentation. The data analysis technique uses descriptive statistics and inferential statistics. The results of this study are that the learning process using VIPE media in the experimental class takes place effectively because the percentage category for each meeting increases. The first meeting was effective then the second meeting was very effective using VIPE media. And there is a positive influence on the use of VIPE media. This is because there are significant differences between the experimental class and the control class. This is because the probability value is smaller than 0.05. Therefore, the existence of this media gives appreciation to teachers who develop learning media to improve student learning outcomes, one of which is media in the form of learning videos.

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1. INTRODUCTION

A culture cannot advance and develop without the contribution of education. The goal of education in Indonesia is to meet the best teaching standards in order to comprehend the enormous development made by the Indonesian people. To produce a golden generation in the future, education must produce a quality generation today. The Law No. 20 of 2003, specifically Article 3 of it, has governed the purposes

and duties of education (Indonesia, 2003). Therefore, it is hoped that education in the twenty-first century will be able to satisfy demands with educational characteristics, one of which is having a fundamental purpose composed of three, namely educating citizens' lives, providing a skilled and knowledgeable workforce, and cultivating and developing skills in various branches of science and technology expertise. (Mardhiyah, Aldriani, Chitta, & Zulfikar, 2021; Ulyawati & Sugito, 2022). As a result, it uses scattered online sources that people can access using devices like cell phones (Peprizal & Syah, 2020 ; Rahmi, 2020).

Learning videos, or VIPE as they are sometimes referred to, are one type of media that can be used. VIPE is a medium that can be used in educational exercises by combining hearing and sight in just one cycle or action. Films, recordings, television shows, sound slides, and other media are a few examples. As a result of the chronicles that it contains that describe or imagine a theme, this media is one type of media used in cooperative learning. The use of VIPE media in the classroom will also have a number of benefits, such as facilitating learning for students and making teaching easier for teachers, stimulating student creativity, attracting more attention from them, and bringing experiences from the outside world into the classroom (Wahyuni et al., 2021;; Brilianti & Fithriyani, 2020; Sahabuddin & Makkasau, 2019).

Based on the facts at an elementary school in Makassar, shows several problems that occur globally, namely learning is said to be successful if at least 75% of students master the subject matter, and 75% of students are actively involved (Prastica, 2021) . However, the reality that teachers encounter in learning is low student learning achievement (Adiyanti, 2020), lack of student learning motivation, reduced time allocation for lesson hours, and teacher's lack IT skills (Kaulan, 2018) , so that teachers have difficulty conveying subject matter (Winda & Dafit, 2021) . Because of these problems, video media-based learning media (VIPE) is very effective in the learning process, because it does not saturate students, instead, it excites their enthusiasm for learning. Through video media (VIPE), teachers have no difficulty explaining what cannot be explained verbally and students' insights broaden with video media for learning (Andari, 2019). Additionally, video-based media can aid students in learning by giving them experiences, such as the environmental change process. This has been demonstrated in earlier research, particularly Novita et alresearch.'s (2019), which found that using video media can successfully enhance students' learning results. So visual media can boost students' interest in studying, according to Amrah et al. research.'s (2020). The study by Hapsari & Zulherman from 2021 also demonstrates that video media can boost student enthusiasm and achievement.

According to several of these research studies, video media can support distant learning. So that the challenges of distance and existence can be solved by the media in remote schools; Wati, Hastuti, & Mustadi, 2021) . In addition, VIPE media can involve one sense such as sight and hearing (Mufidah, 2017). This facilitates learning for pupils' brains. Based on these issues and the theoretical studies mentioned above, the researcher proposes a teaching strategy that can give students real-world examples they can see for themselves and help them get around time limits. Additionally, it helps pupils understand abstract concepts in science to the fullest extent possible. As a result, the researchers looked at one of the suitable media, VIPE media (Learning Videos), which may be used both offline and online. Along with this media, it honours educators who create educational materials, such as learning films, to enhance the learning results of their students.

2. METHODS

The research approach uses quantitative research with a quasi-experimental type . So the Quasi Experiment design used is the Nonequivalent Control Group Design. Two groups were used in this research design: the experimental group received the treatment, while the control group did not get the treatment, serving as a comparison group. VIPE material (Learning Videos) will be used in the experimental group, whereas they will not be used in the control group (Learning Videos). There will be a pretest and posttest for each of these groups. The following table makes clear the results of research:

Table 1. Research Design Nonequivalent Control Group Design

Group	Pretest	Treatment	Posttest
Experiment	O_1	X	O_2
Control	O_3	-	O_4

Information:

O_1 : The pretest value of the experimental group using the VIPE Experimental media
O_2 : The posttest value of the experimental group using the VIPE Experimental media
O_3 : The pretest value of the control group uses conventional learning
O_4 : The posttest value of the control group uses conventional learning
X : Treatment using VIPE media (Learning Video)

The study was carried out at SD Meradekaya I in Makassar. 180 pupils made up the study's population. Purposive sampling is then used as a non-probability sampling approach in this study to choose the study's sample. Due to the fact that there are only two classes and a pandemic that calls for limited student attendance in each classroom per the instructions of the corresponding homeroom instructor, the pupils from classes Va and Vb were chosen as the study's sample groups. Before the research was conducted, class Va's science learning results showed a low category when using the lecture method, and these results were used to determine the experimental and control classes.

The planning stage and the execution stage of the research process were separated into 2 parts, namely: First, the preparation stage, in which numerous preparations were done before implementing the learning process, including 1) creating a Learning Implementation Plan (RPP) for two meetings that contained material and LKPD, and 2) creating learning videos. 3) Create assessments of student learning objectives that will be used for the pre-test and post-test. Second, there is the stage of implementation, which includes: 1) implementing the pre-test (preliminary test) in the experimental class and control class, 2) implementing the learning process in the experimental class while using VIPE media and in the control class without using VIPE media, and 3) implementing the post-test (final test) in the experimental class and control class.

In terms of the methods used to collect the data for this study, observations were made by observing how the teacher guided learning. It is possible to observe both online and offline learning while taking the school's environment into consideration.

Table 2 . Implementation of the Learning Process

Score	Category
< 20%	Very Less Effective
21%-40%	Less effective
41%-60%	Effective enough
61%-80%	Effective
81%-100%	Very effective

Then tests and documentation were used as the data collection methods in this study. Therefore, the tools used are science learning outcomes tests, learning implementation plans, and observation sheets. As a result, both descriptive statistics and inferential statistics are used in the analysis of research data. Descriptive data analysis aims to describe or describe the results of the experimental group's student learning. The following score table classifies the scores for learning outcomes:

Table 3. Guidelines for Categorizing Student Learning Outcomes

Mastery Level	Score	Information
90%-100%	90-100	Very high
80%-89%	80-89	High
65%-79%	65-79	Currently
55%-64%	55-64	Low
0%-54%	0-54	Very low

The goal of descriptive data analysis is to describe or illustrate how students have learned about environmental change topics, particularly science topics that have been covered via VIPE media. Additionally, the Independent Sample t-test, a sort of parametric measurement in inferential statistics, will be utilized in this test. To determine whether there is a significant difference between two distinct differences or sets, an independent sample t-test was utilized. Using IBM SPSS Statistics Version 26, data from this inquiry was analyzed. Normality and homogeneity tests were completed before to the inferential test.

The purpose of the normality test is to determine whether or not the samples under study are normally distributed. Using the SPSS Version 26.0 system and the One-Sample Kolmogorov-Smirnov Test, information on students' scientific learning outcomes is tested for normalcy. If the significance is greater than 0.05, information on student learning outcomes will be communicated often. On the other hand, if the significance is obtained, it is said that it is not normally distributed.

To determine whether the data from the two classes met consistent (homogeneous) changes, a homogeneity test was conducted with a 5% error rate (0.05). The Levene test was used to perform the difference homogeneity test. This test is used to determine whether the differences between the two samples are the same. The test conditions state that the sample variance is the same if the probability value is greater than the significance threshold of 0.05 (homogeneous).

If a difference exists between the pretest and posttest, the hypothesis test is used to determine it. The SPSS version 26.0 program was used, and an independent sample t-test was performed with an error level (α) of 0.05. The study's outcomes are: If the tcount > ttable value, then the null hypothesis (H_0) is rejected and the alternative hypothesis (H_a) is accepted, indicating that there is a significant difference in how learning films are used to affect student learning outcomes. The null hypothesis (H_0) is accepted and the alternative hypothesis (H_a) is rejected if the tcount is greater than the ttable value, indicating that there is no discernible difference between the utilization of learning videos and student learning results.

3. FINDINGS AND DISCUSSION

3.1. Observation Results of the Implementation of the Learning Process Using VIPE Media

The experimental class successfully learned about environmental change through the use of VIPE media (Learning Videos). This is evident in the students' eagerness to participate in the learning process as well as in how animated and enthusiastically they watch the films that are used to present the information. The outcomes are also quite successful. The following table summarizes the findings from observations made during the science learning process while using VIPE media (Learning Videos) to study environmental change material:

Table 4. Description of the Learning Implementation Sheet

No	Activity the Observed	Score	
		Learning 1	Learning 2
1	Opener	2	3
2	Submission of material using VIPE media	3	3
3	Student Learning Process	2	3
4	Feedback	2	2
5	Closing	3	3
Total		12	14
Percentage Total		80.00 %	93.33 %
Category		Effective	Very effective

Inferring from Table 4 that the first lesson was successful with an achievement level percentage of 80.00%, and that the second lesson's learning process was carried out extremely successfully with a percentage of 93.33%, it can be said that the first lesson was effective. By dividing the accomplished indicator score by the maximum score multiplied by 100%, the percentage of achievement is determined. Therefore, it can be said that using VIPE media for learning is quite effective.

3.2. Results of Descriptive Statistical Analysis

This research provides a summary of the student learning results for the first (pretest) and final (posttest) assessments in natural science courses on environmental change for the experimental class using VIPE media and the control class not using VIPE media.

3.3 Pretest data on science learning outcomes of experimental class students

On Monday, June 7, 2021, a pre-test of the experimental class's pupils' scientific learning outcomes was conducted with a total of 14 study subjects. The pre-test results of the students in the experimental class were carried out to get the descriptive data after the pre-test data was collected and processed with the aid of the IBM SPSS Statistics Version 26 application. The table below displays data from the experimental class pre-test results.

Table 5. Description of Students' Pre-Test Scores in the Experimental Class

Descriptive statistics	Statistical Value
Number of Samples	14
Lowest Value	55
The highest score	80
Average (Mean)	67.86
Range	25
Standard Deviation	9.139
Median	67.50
mode	60

Table 5 shows that the experimental class's average (mean) pre-test score is 67.86, with a range of data (standard deviation) of 9,139. This means the standard deviation number is lower than the average (mean) value, accurately reflecting all data. The maximum score and lowest score are within a range of values of 25, respectively. The following table shows the frequency distribution of the student learning outcomes from the experimental class's pre-test results:

Table 6. Distribution of Frequency and Percentage Category of Experimental Class Pretest Results

No	Intervals Score	Category	Frequency	Percentage
1	90-100	Very Tall	-	-
2	80-89	Tall	3	21.43%
3	65-79	Currently	6	42.86%
4	55-64	Low	5	35.71%
5	0-54	VeryLow	-	
		Amount	14	100%

The frequency table shows that there were 5 students who scored in the low group and had a percentage of 35.71%, and there were 6 students who scored in the medium category and had a percentage of 42.86%. With a percentage of 21.43%, 3 students fall into the high category. The results of the descriptive analysis have led to the conclusion that the experimental class's pre-test scores fall into the medium group. This is supported by the average (mean) value of the learning outcomes for the experimental class as a whole, which is 67.86.

3.4 Student pretest data on control class science learning outcomes

On Tuesday, June 8, 2021, 14 students took the pre-test in the control class. The pre-test data was then processed with the aid of the IBM SPSS Statistics Version 26 application to produce description information for the students' pre-test scores in the control group. The following table shows information from the control class pre-test results:

Table 7. Description of Students' Pretest Scores in the Control Class

Statistics Descriptive	Score Statistics
Amount Sample	14
Score Lowest	50
Score Highest	80
Average (means)	65.71
range (Range)	30
Standard Deviation	8,739
Median	67.50
mode	70

Table 7 shows that the control class's mean pre-test average was 65.71, with a standard deviation of 8.739, demonstrating that the standard deviation is less than the mean number (mean). All data can be represented by the average value. The maximum score and the lowest score of 30 are both included in the range of values (range). The following table shows the frequency distribution of the student learning outcomes pre-test results for the control class:

Table 8. Distribution of frequency and percentage of control class pretest result categories

No	Intervals Score	Category	Frequency	Percentage
1	90-100	Very Tall	-	-
2	80-89	Tall	1	7.14%
3	65-79	Currently	9	64.29%
4	55-64	Low	3	21.43%
5	0-54	VeryLow	1	7.14%
		Amount	14	100%

According to the frequency table, 1 student with a score of 7.14% fell into the very low group, 3 students with a score of 21.43% fell into the low category, 9 students with a score of 64.29% fell into the moderate category, and 1 student with a score of 7.14% fell into the high category. Based on these findings, it was determined that the control class' pre-test scores fell into the moderate range. This conclusion is supported by the average score (mean) of 65.71.

3.5 Student post-test data on science learning outcomes in the experimental class

On June 23, 2021, a post-test of the experimental class's students' learning results involved a total of 14 study participants. The IBM SPSS Statistics Version 26 program was used to process the post-test data once it had been collected in order to uncover descriptive information regarding the post-test results of the students. The following table shows data from the experimental class post-test results:

Table 9. Description of Students' Post-test Scores in the Experimental Class

Statistics Descriptive	Score Statistics
Amount Sample	14
Score Lowest	70
Score Highest	95
Average (means)	85.36
range (Range)	25
Standard Deviation	7,712
Median	85.00
mode	80

Based on Table 9, the experimental class post-test had an average value (mean) of 85.36 and a range of data (standard deviation) of 7.712, demonstrating that the standard deviation value is less than the average value (mean) and can therefore represent all data. The standard deviation for the pre-test, which was 9.139, was higher than the standard deviation for the post-test, which was 7.712. The pretest's standard deviation value shows that there is more variety than there was in the posttest, therefore the lower the standard deviation, the better the standard deviation. When it comes to the range of values (range), the highest score and the lowest score are

Table 10. Frequency Distribution and Percentage of Experimental Class Posttest Result Categories

No	IntervalsScore	Category	Frequency	Percentage
1	90-100	Very Tall	6	42.86%
2	80-89	Tall	6	42.86%
3	65-79	Currently	2	14.28%
4	55-64	Low	-	
5	0-54	VeryLow	-	
	Amount		14	100%

According to the frequency table, there were 6 students who had very high scores, or a proportion of 42.86%, which is identical to the number of students who received the high category. There were 2 pupils, or 14.28% of the class, who were given the moderate category. According to the findings of the descriptive analysis, the posttest results in the experimental class fall into the medium group, with an average value (mean) of 85.36 for the overall learning outcomes in the experimental class.

3.6 Student posttest data on control class science learning outcomes

On June 24, 2021, a post-test of the learning outcomes of the control group's students was conducted with a total of 14 study participants. The IBM SPSS Statistics Version 26 tool was then used to process the post-test data in order to determine the post-test score descriptions for the students in

the experimental class. The following table shows information from the post-test findings for the control class:

Table 11. Description of the Post-Test Scores of Students in the Control Class

Statistics Descriptive	Score Statistics
Amount Sample	14
Score Lowest	60
Score Highest	80
Average (means)	71.07
range (Range)	20
Standard Deviation	7,385
Median	72.50
mode	75

According to table 11, the control class's average post-test value (mean) is 71.07, with a data distribution standard deviation of 7.385, meaning that the standard deviation is less than the average value (mean) and the average value is able to represent all data. The fact that the standard deviation is lower than the pre-test standard deviation, which ranged from 8.739 to 7.385, further supports the claim that it is superior. The highest score and lowest score together make up the range of values (range), which is 20. The following table shows the frequency distribution of the student learning outcomes for the control class post-test results:

Table 12. Distribution of frequency and percentage of control class posttest result categories

No	Intervals Score	Category	Frequency	Percentage
1	90-100	Very High	-	-
2	80-89	High	3	21.43%
3	65-79	Currently	8	57.14%
4	55-64	Low	3	21.43%
5	0-54	VeryLow	-	
Amount			14	100%

According to the frequency table, there were 8 students who received the medium category, which had a percentage of 57.14%, and 3 students who received the high category, which had a percentage of 21.43%. There were 3 pupils, or a percentage of 21.43%, who were placed in the bottom group. According to the overall mean value of 71.07, the data acquired lead to the conclusion that the post-test results in the control class fall into the moderate category.

3.7 *Results of Inferential Statistical Analysis*

How to do a normality test to determine whether the data is normal or not. Kolmogrov-Smirnov is used in the processing with assistance from the IBM SPSS Statistics Version 26 application. It is said to be regularly distributed if the probability value at the Kolmogorov-Smirnov test's output is higher than the required a value, which is 5% (0.05). The following table shows the results of the normalcy test data:

Table 13 . Data Normality Test Results of Pre-Test and Post-Test of Experimental and Control Classes

Data	Score Probability	Information
Pre-Test Class Experiment	0.200	0.200 > 0.05 = normal
Pre-Test Class Control	0.200	0.200 > 0.05 = normal
Post-Test Class Experiment	0.200	0.200 > 0.05 = normal
Post-Test Class Control	0.124	0.124 > 0.05 = normal

According to this data, it appears that information regarding the pre-test and post-test outcomes for the experimental and control classes is given on a regular basis. The probability value is more pronounced than 0.05, as can be observed from the results of the normality test on the four pieces of data. In this way, it tends to make sense that the experimental and class data are distributed normally.

The information from the two cases is tested for homogeneity to see if it is. The IBM SPSS Statistics Version 26 application was used to handle the homogeneity test. The Levene test was utilized in this study's homogeneity test. If the probability value on the findings of the Levene statistical measurement is more than the specified value, which is 5%, the information is said to be homogeneous (0.05). The table below contains more information:

Table 14. Pre-test and post-test results of homogeneity of experimental and control classes

Data	Score probability	Information
Pre-test class experiment and control	0.670	0.670 > 0.05 = homogeneous
Post-test class experiment and control	0.974	0.974 > 0.05 = homogeneous

To validate this analysis, the IBM SPSS Statistics Version 26 program's independent sample t-test findings for the experimental pre-test and the control pre-test were used. The probability value must be less than 0.05 in order for it to be eligible. Before receiving treatment, this test is supposed to be able to identify differences between the experimental class and the control class in terms of students' science learning outcomes. The results of the independent sample t-test are shown in the table below.

Table 15. Independent Sample T-Test Pre-Test Experiment and Pre-Test Control

Data	Q	df	Score Probability	Information
Pre-Test Class Experimentand Class *Pre-Test* Control	0.634	26	0.532	0.532 > 0.05 = there isn't any difference

Based on the table above, it is very clear that the possible value is more important than 0.05, it is realized that there is no critical difference in science learning outcomes between the experimental class and the control class before being given treatment. If the calculated t value is 0.634 compared to the t table value with a value of α = 5% and df = 26 then the table value is 2.056. Then, at that time t-count has a simpler value than t-table (0.634 < 2.056). In terms of t arithmetic <t table, it tends to be assumed that there is no critical contrast.

The sample t-test post-test experiment and post-test control's independent test findings seek to identify any variations in students' learning outcomes in science between classes that participate in the activities using VIPE media (Learning Videos) and those that do not (Learning Videos). The findings of the post-tests for the experimental and control classes served as the basis for this inquiry. The IBM SPSS Statistics Version 26 application was used to perform this check. If the probability value is less than 0.05, it is indicated that the information requirements differ. The post-test scores for the experimental class and the control class were compared using the Independent Sample T-Test, with the following findings:

Table 16. Independent sample t-test post-test experiment and post-test control

Data	Q	Df	Score Probability	Information
Post-test class experimentand *post-test* class control	5.006	26	0.000	0.000 < 0.05 = there is difference

Judging from the table, it tends to be seen that the probability value is below 0.05. This shows that there are differences in student science learning outcomes that are in stark contrast between the group

that took part in the training using VIPE media (Learning Video) and the group that took part in the exercise without using VIPE media. If the t-count value is 5.006 compared to the t-table value with α = 5% and df = 26 , then the t-table value is 2.056. Then, at that time t count has a more prominent value than t table (5.006 > 2.056). So that t count > t table, it can be assumed that there is a very big difference.

Following the Levene test, the predetermined value was 0.05, and the pre-test output findings for the experimental and control classes were both 0.670. As observed, the value of 0.670 is more noticeable than 0.05. The post-test scores after the Levene test for the experimental and control classes were 0.974, while the predefined value was 0.05. This demonstrates that the value of 0.974 exceeds 0.05. The pre-test and post-test data for the trial and control classes therefore tend to show nearly identical differences (homogeneous).

The results of hypothesis testing with inferential statistics are carried out by comparing sig values (probability) and comparing tcount values with ttable. The results of the Independent Sample t-Test test for post-test data for the experimental class and control class obtained tcount = 5.006. Based on df(26) with an error level of 5%, the value of ttable = 2.005. From these data it can be seen that tcount = (5.006) > ttable (2.005) so that Ho is rejected and Ha is accepted.

Meanwhile, by looking at the sig (probable) value of the sig (2-tailed) science learning outcomes is 0.000. This shows that the possible probability value is lower than the previously determined α value, namely 0.000 <0.05, so there is a difference.

DISCUSSION

An overview of the use of VIPE media in science learning

Learning activities using VIPE media are applied to experimental classes in natural science subjects on Environmental Change in class V. The steps for learning activities are;

a) The teacher introduces VIPE media to students;
b) Students observe material through the VIPE media displayed, and
c) Teachers and students conduct questions and answers regarding students' understanding of the material according to what is conveyed through VIPE media according to learning indicators.

Through media support in the form of instructional videos, students can get more knowledge, create mental images, and acquire concrete knowledge during the learning process (Afrilia et al., 2022). The learning process was judged to be effective at the first meeting and highly effective at the second meeting according to the findings of witnessing its implementation utilizing VIPE Media. The fact that the percentage category for each meeting rises demonstrates that learning is implemented properly. These findings came from observation logs used by researchers.

In the observation sheet there are 5 aspects that are observed, namely the opening, delivery of material using VIPE media, student learning processes, feedback and closing where each aspect has 3 assessment indicators. In the opening aspect, there are indicators at the beginning of learning there are greeting and asking about student news, then apperception and the third indicator is conveying learning objectives then the next aspect which is the most influential in learning is the aspect of delivering material using VIPE media there are 3 introduction indicators related to subject matter, introduction to VIPE media and playback of VIPE media (Learning Videos), this is because the core activity of learning is the delivery of material using VIPE media.

By providing videos, teachers can be helped in delivering lessons on environmental change, and students will also be more clearly able to understand what they are learning. Starting with the first lesson, the video that highlights the water cycle in the lesson's environmental changes that have been given in the video complete with explanations will help all students have a uniform understanding of the material.Then in the second lesson a learning video is given in the form of a drought disaster. In the environmental change material, students are shown the things that cause drought disasters and then how to overcome them. So that in the video students see clearly the material in accordance with the right illustration according to the wishes of the teacher.

It was established that the use of VIPE media for the learning process' implementation increased the presentation of the learning process' implementation, which was successful, and the following meeting was highly successful. This was discovered during the implementation of the learning process, demonstrating how successfully learning occurred with the use of learning video media, which made it easier for teachers to instruct (JS Wahyuni & Syakur, 2022 ; Sahabuddin et al., 2017) , build creative minds because there are clear enough pictures that students see and pay more attention to the learning process after using VIPE media (Learning Videos).

The effect of using VIPE media on science learning outcomes

The trial class pupils' scientific learning outcomes before receiving treatment were in the moderate classification, but after receiving VIPE media treatment, they improved and moved into the high category. The inclusion of VIPE media (Learning Videos) in the instructional cycle has resulted in an increase in the average post-test, which has led to variations in students' scientific learning results before and after treatment. Similar alterations can be seen in the attitude toward the surroundings before and after using VIPE media. According to the findings of the observations, there has been a rise in the attitude of care for both the environment and the students. In order to make learning activities more feasible and effective, collaboration between students and teachers is one of the benefits of media in the learning process. (Sahabuddin et al., 2022) .

Through the use of media, teachers can avoid having to constantly explain the material they are teaching because students only need to see it once. Additionally, the media can inspire students to think creatively about the subject matter, cultivate a positive attitude toward the subject matter and the learning process, and get around the limitations of time and space constraints.Following research on environmental change utilizing VIPE media, the findings of testing the hypothesis show that H0 is rejected and Ha is accepted. Both in terms of learning results and the way in which the learning process is carried out, VIPE media demonstrate that it can assist with content that is challenging for teachers to explain so that students' learning outcomes in science are affected.

This is demonstrated by Bayanah's (2019) theory, which holds that if the teacher creates a newer environment than before, pupils will feel obliged to acquire the content in order to affect learning results. When employing learning video media, for instance, messages can be directly communicated without the need for extensive study thanks to the usage of media as a container for information that will be disclosed by the teacher to pupils.

Aside from this explanation of why the results of research have an impact, Limbong et al (2021) explains that videos are effectively used for mass learning or independently so they can support the implementation of a very effective learning process. If the learning process that the student has passed is already very effective, then the likelihood that the student will succeed is increased. These findings are consistent with students' understanding of science content and call for careful observation of the targets described by Meidawati, Sobron AN, Bayu, (2019) in order to stimulate students' ability to reason after seeing and observing what they see and drawing conclusions from the subject matter.

The influence given to the use of VIPE media fulfills the objectives of using V I P E media by Yulinar (2020) learning videos are very practical to use for learning to overcome problems in the learning process at school both during distance learning and material that is difficult to explain directly is the solution taken by educators to influence student science learning outcomes in providing environmental change material so that messages can be conveyed without any misunderstanding from students' own thinking also with videos of important incidents and events everywhere can be seen effectively and quickly, this causes learning to be carried out well by using learning video media.

The test results showed that H_0 was rejected and H_a was accepted, indicating that the trial class and the control class had different levels of success in science learning. The disparity between the experimental and control classes' scientific learning outcomes shows that the usage of VIPE media (Learning Videos) affects students' science learning outcomes regarding the environmental change

topic. Thus, it can be concluded that VIPE Media tends to be helpful in studying science because there is a noticeable difference in students' outcomes in science learning after utilizing it.

4. CONCLUSION

The learning process employing VIPE media (Learning Video) in the experimental class was successful, as seen by the rising percentage category for each meeting, according to the research's findings. Due to the effectiveness of the first meeting and the second meeting's use of VIPE media, the experimental class's students' scientific learning outcomes shown an improvement above those of the control group. As seen by the post-test results, the experimental class scored highly whereas the control group scored just moderately. Consequently, the utilization of VIPE media is positively impacted (Learning Videos). This is due to the fact that the experimental class using VIPE media (Learning Videos) and the control class not using VIPE media differ significantly from one another (Learning Videos). This is due to the probability value being below 0.05. Regarding recommendations for additional research, this can be utilized as a different reference in studies to improve student learning outcomes in science courses. It can also be used to expand population coverage to assess the effectiveness of VIPE media.

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