

# The Effect of Picture Media on Science Learning Outcomes of Grade III Students at UPTD SD Negeri 124385 Jl. Sawi, Pematangsiantar

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**Abstract.** The purpose of this study was to determine whether there was an influence of image media on the science learning outcomes of grade III students. This research was conducted at the UPTD SD Negeri 124385 Jl. Sawi, Kec. Siantar Timur, Pematangsiantar in the 2024/2025 academic year. The research used was quantitative with the type of Pre-Experiment research and the One Group Pretest-Posttest research design. The sample of this study was 25 students consisting of 10 males and 15 females. The results of the average pretest score were 58.32 which was included in the category of less than good or had not met the KKM, then the average posttest result was 83.2 which was included in the very high category. The data collection technique was a test technique with a validity test, a difficulty level test, and a discriminatory power test. The results of the N-Gain score test showed a result of 0.79 where  $0.79 > 0.70$  the results were included in the high category. The percentage value obtained a result of 79.20 where  $79.20 > 76$  is classified as an effective criterion. The results of the hypothesis test show a calculated t value  $> t$  table subset ( $12.276 > 2.063$ ). This indicates that the null hypothesis ( $H_0$ ) is rejected and the alternative hypothesis ( $H_a$ ) is accepted. Thus, from the results of this study it can be concluded that there is a significant influence of the application of image media on student learning outcomes in science learning on weather material at UPTD SD Negeri 124385 Jl. Sawi Pematangsiantar

**Key words:** Effect, learning outcomes, picture media, natural science

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## INTRODUCTION

The teaching and learning process is a series of activities that involve direct interaction between teachers and students to achieve learning objectives. The success of learning objectives is influenced by the use of methods that are appropriate to the conditions of the students. Education is basically a conscious effort to develop the potential of human resources of students by encouraging and facilitating their learning activities. In Law of the Republic of Indonesia Number 20 of 2003 concerning the National Education System Article 1 paragraph 1 it is stated that education is a conscious and planned effort to create a learning atmosphere and learning process so that students actively develop their potential to have spiritual religious strength, self-control, personality, intelligence, noble morals, and skills needed by themselves, society, nation and state. Based on this law, the goal of education in Indonesia is to create an active learning atmosphere and learning process so that students can develop their potential.

According to Winaputra (2008:2) learning is a relatively permanent process of change in individual behavior as a result of experience. In this sense, attention is paid to 3 things, namely: that learning must allow for changes in individual behavior, the change must be the result of experience, the change occurs in individual behavior. One of the efforts to improve the quality of education is learning and teaching. Effective learning is learning that provides opportunities for students to carry out activities as widely as possible in learning. Good learning activity design is needed in creating effective learning, one way is to choose the right learning media to be determined in learning activities in the classroom, one of which is science learning. According to Rohini (2010) the teaching and learning process cannot be separated from various strategies, methods, learning resources and media used by teachers so that students can learn effectively and efficiently. The learning process will be more effective if teachers are able to use the right learning media and in accordance with student characteristics so that students are interested and not easily bored with the ongoing subject so that it can improve student learning outcomes. One of the learning media that can be used is image media learning media. Image media is anything that is manifested visually into a two-dimensional form as an outpouring or various thoughts such as paintings, portraits, slides and others (Hamalik 2010). According to Wibawa (2004) Images are the most commonly used media, because they are relatively cheaper and easier to obtain. Examples of image media are cartoons, comics, sticky pictures and photos. Pictures are simple media that can be used well in elementary schools, because students like them, they are cheap, and they are not difficult to find. Picture media has many variations, such as comics that can be used in the learning process (Sari 2020).

According to Oviani (2019: 4), science learning in elementary schools cannot be separated from learning media, because many science learning materials are difficult to explain with books alone. In addition, the use of picture media in science learning in elementary schools is very useful, because picture media has certain functions in the learning process. Among them are arousing students' desires and interests, arousing motivation and stimulation of science learning activities, helping the smoothness, effectiveness and efficiency of achieving learning objectives. So that learning media is expected to be able to provide a pleasant atmosphere and be able to arouse motivation, accelerate understanding, increase student activity and knowledge in learning.

Based on the results of observations conducted by researchers in class III UPTD SD Negeri

124385 Jalan Sawi Pematangsiantar, the learning process in the classroom is still not optimal or is classified as low because students pay less attention during teaching and learning activities. The teacher only uses the lecture method, so students are not interested and get bored quickly. The difficulties experienced by these students are expected to be overcome, so that there are fewer students who experience a learning process that is not optimal. This causes the understanding of the material to be less in-depth, so that students' academic achievements do not reach the expected target. In addition, the lack of interaction and active participation in discussions also hinders the development of their critical thinking skills. To increase the effectiveness of learning, there needs to be a more interesting approach and involve students directly.

Teachers hold full control in learning as the main source of information, and the learning process is only centered on the teacher explaining the material while students only listen. Teachers are expected to be able to apply learning media that can encourage student participation to be more active. The lack of variation in learning media and the use of interesting media also causes a lack of student participation and interest in learning, as well as a sense of cooperation and responsibility for students during learning. This problem is reinforced by evidence that the value of student learning outcomes at UPTD SD Negeri 124385, especially in class III, is relatively low, as shown by the results of their odd semester science exam scores.

The following is the data on the odd semester exam scores for class III UPTD SD Negeri 124385 Jl. Sawi:

Table 1. Results of the Odd Semester Science Exam Scores for Class III SD Negeri 124385 Jl. Sawi

No	Number of Students	Score Acquisition	Completeness (Exceeding the MCC)	Percentage
1	10 students	$\geq 70$	Exceeding	40%
2	15 students	$\leq 70$	Not exceeding	60%
25 students				

(Source: Odd Semester Exam Results for Class III of Public Elementary School 124385 Jl. Sawi)

The table data above shows that those who get a score  $\geq 70$  are categorized as passing (70-100) there are 10 students with a completeness presentation of 40% and students with a score  $\leq 70$  are categorized as failing (0-69) there are 15 students with a completeness presentation of 60%. Based on these problems, a solution is needed to improve learning outcomes in science subjects. One way that can be used to improve learning outcomes is that educators must be able to choose and apply the right image media in order to motivate and attract students to be more active in participating in learning, in addition educators must also be able to choose and use learning media so that the message conveyed by the educator can be received by students well so that their abilities and learning outcomes can increase. Image media that can be used in order to increase the activeness and learning outcomes of students is image media for science learning outcomes. Researchers try to improve science learning outcomes by using image media for science learning outcomes which are image media that teach about creating comfort and are able to increase student learning motivation. Through image media, it is hoped that various problems that exist in the science learning process in class III of UPTD SD Negeri 124385 Jl. Sawi can be overcome.

## MATERIALS AND METHODS

The type of research used by the researcher is quantitative using the experimental method. According to Sugiyono (2017:74) experimental research is a research method used to find the effect of certain treatments on others in controlled conditions. The type of research used is pre-experimental design using the "one group pretest-posttest design" design which is described as follows:

Table 2. One Group Pretest Posttest Research Design

Pre-test	Treatment	Post-test
O1	X	O2

(Sugiyono, 2017)

Notes: O1 = Pre-test  
O2 = Post-test  
X = Treatment

Population is a generation area consisting of objects or subjects that have certain qualities and characteristics determined by researchers to be studied and then drawn conclusions Sugiono (2017:80). The population in this study were all students of class III UPTD SD Negeri 124385 Jl. Sawi in the 2024/2025 academic year consisting of 1 class totaling 25 people. The research sample is part of the population that becomes the data in the research. Sugiyono (2019:127) states that the sample is part of the number and characteristics possessed by the population. This means that the sample is part of the population. Sampling in this study used cluster sampling, which is a technique for taking groups from the population. The sample used in this study was the total number of students in class III of UPTD SDN 124385 Pematangsiantar.

Table 3. Research Sample Number of Grade III Students of Public Elementary School 124385 Jl.Sawi

No	Class	Total of students
1	III	25
	Total	25

Source: SDN 124385 Jl. Sawi

The data collection technique in this study was by conducting an initial test and a final test. The steps for data collection were as follows:

### 1. Observation

Observation is an activity of observing or researching directly to the object being studied and seeing directly the activities that actually occur at the location being studied. This observation aims to directly observe the learning conditions that are carried out in the classroom before and after using image media.

### 2. Test

A test is a series of questions or exercises and tools used to measure skills, knowledge, intelligence, abilities or talents possessed by individuals or groups. In this study, the test was used to

determine the effect of image media on student learning outcomes. In this study, the researcher used a test in the form of multiple choice questions. The test in this study was in the form of a pretest and posttest.

### 3. Documentation

According to Sugiyono (2017:240) a document is a record of past events. Documents can be in the form of writing, pictures, or monumental works from someone. This can make it easier for researchers to verify the accuracy of the research results.

## RESULTS AND DISCUSSION

This research was conducted at SD Negeri 124385 Jl. Sawi Pematangsiantar in class III consisting of 25 students. The purpose of this study was to determine whether the application of image media can improve the science learning outcomes of class III students. The method used was pre-experimental with a One Group Pretest-Posttest design. Image media was chosen because it is considered capable of creating a more active, creative, effective, and enjoyable learning atmosphere.

Image media is used to improve the activeness and learning outcomes of students, especially in science learning. The researcher succeeded in improving science learning outcomes by using image media that teaches about comfort and is able to increase student learning motivation. Through image media, various problems that exist in the science learning process in class III UPTD SD Negeri 124385 Jl. Sawi can be overcome.

The increase in learning outcomes by using image media is due to the active participation of students in learning activities, which involve combining facts and ideas clearly. This is done by combining explanations of words and interesting pictures in the learning process and student acceptance of the treatment given during the learning process. Rohini's opinion (2010) states that image media is a media that combines facts and ideas clearly through the expression of words and images.

From the results of the study, data was obtained that there was an increase in student learning outcomes after implementing learning using image media. This is evidenced by a significant increase in the average score of students from pretest to posttest, where the average score of students in the pretest was 58.32, increasing to 83.2 in the posttest. This increase shows that image media is effective in improving the mathematics learning outcomes of grade III students.

Next, the N-Gain Test was conducted. The mean value or average value of the N-Gain score showed a result of 0.79, which is greater than 0.70, so it is classified as a high category. The percentage value obtained a result of 79.20, which is greater than 76, so it is classified as an effective criterion. Then the researcher conducted a hypothesis test to make decisions and conclusions. The test results showed that the t-count value was 12.276. With the t-count value, it can be concluded that the t-count value  $>$  t-table ( $12.276 > 2.063$ ). This indicates that the null hypothesis ( $H_0$ ) is rejected and the alternative hypothesis ( $H_a$ ) is accepted. Thus, from the results of this study it can be concluded that there is a significant influence of the application of image media on student learning outcomes in science learning on Weather material at SD Negeri 124385 Jl. Sawi Pematangsiantar.

## CONCLUSION

Based on the results and discussion of the research in the previous section, it can be concluded

that the application of image media significantly improves the science learning outcomes of grade III students. This is evident from the increase in the average score of students from 58.32 in the pretest to 83.2 in the posttest. The results of the N-Gain Test which reached 0.79 showed that the increase in student learning outcomes was in the high category, with an effectiveness percentage of 79.20%, which confirmed the effectiveness of image media in improving science learning outcomes. The results of the hypothesis test which showed a t-count value of 12.276, which was greater than t-table (2.063), stated that the null hypothesis (H0) was rejected and the alternative hypothesis (H1) was accepted. This indicates a significant influence of the application of image media on improving science learning outcomes of weather conditions in grade III of SD Negeri 124385 Jl. Sawi Pematangsiantar.

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