

# IMPROVING STUDENTS' LEARNING OUTCOMES BY USING PICTURE MEDIA ON THE STRUCTURE AND FUNCTION OF PLANT PARTS

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## **ABSTRACT**

*Student learning outcomes on the science material on the Structure and Function of Plant Parts were 47 (low category). This was due to students' lack of awareness of the importance of understanding and mastering the material that had been presented, and also in teaching the teacher only delivered the material and students listened, took notes, and did practice questions. So a study was conducted that aimed to improve learning outcomes on the structure and function of plant parts using picture media for fourth-grade students of SDN Sawah Baru. This study used Classroom Action Research (CAR) with two-cycle learning improvements. The subjects in this study were 31 fourth-grade students with 11 boys and 20 girls. Data collection techniques used observation and tests. The results of the observations were analyzed using qualitative descriptive techniques and the results of the tests were analyzed using quantitative descriptive techniques. The findings of this study include: (1) the use of picture media in improving learning was very good, as evidenced by the APS-PKP 2 score of 97 (very good category), (2) Student learning outcomes in the learning improvement were very good, with a change in the average class score of 16 points. Originally in cycle 1 it was 64 (sufficient category) and in cycle 2 it was 80 (very good category), (3) The use of image media can improve student learning outcomes, with an increase in the class average from cycle 1 to cycle 2 of 16%. Thus, it can be concluded that the use of image media can improve learning outcomes on the structure and function of plant parts for students at the UPTD SD Negeri Sawah Baru, South Tangerang City.*

**Keywords:** Image Media, Learning Outcomes, Plant Parts

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## INTRODUCTION

One of the significant impacts of modern technology is the advancement of learning media. These media serve as effective tools for delivering educational content, as noted by Briggs (1997). The use of learning media makes the presentation clearer and allows students to grasp concepts more easily and quickly. As part of science instruction in elementary schools, teachers can effectively incorporate learning media into their lessons. Science is one of the most important subjects. For students, it provides the foundation for their studies and future careers. Science lessons explain natural phenomena (Iskandar, 2007). Through science lessons, students can develop a deeper understanding of nature, along with critical thinking skills and engage in scientific inquiry (Mulyasa, 2010).

In the learning process, visual media plays an important role (Darmodjo, 2009). Visual media effectively communicates messages through visual representation (Cecep Kusnandi, et al., 2013). The main purpose of using visual media is to attract students' attention, make material easier to understand, and illustrate facts and information more clearly. Images can increase student interest and engagement in the learning experience. In addition, images help memory retention of material from textbooks and support the development of language skills, creativity, and artistic expression (Sardiman, 2009). Through the integration of visual media, students can expand their knowledge and experience, ensuring that information is retained more effectively (Hasan, 2010).

The UPTD SDN Sawah Baru curriculum for the 2024/2025 academic year has set the Minimum Completion Criteria (KKM) for each subject at 65. The determination of this KKM value refers to the graduate competency standards. After conducting a learning evaluation at the pre-cycle stage, the average class score was 49. In addition, the highest score was 80 and the lowest was 20. Based on the Minimum Competency Criteria (KKM), these scores indicate that the learning outcomes of the material on the structure and function of plant parts in grade IV are still below the specified KKM, which is 65.

So the learning outcomes that have been carried out indicate that the understanding of the material on the structure and function of plant parts of grade IV students of UPTD SDN Sawah Baru has not yet reached the KKM.

There are several problems based on the background above, namely students feel bored during learning, lack of use of learning media, in the learning process students do not pay attention to the teacher's explanation and the learning results in the pre-cycle stage obtained an average class score of 49. This still does not meet the established KKM, which is 65.

Based on the analysis of observation results at the pre-cycle stage, several causes of low student learning outcomes were found, namely teachers only used lecture methods in explaining the material, in the learning process teachers had not utilized concrete learning media to increase student learning motivation, teachers did not involve students enough in the learning process so that class interactions in the learning process were still one-way, teachers were less able to focus students' attention on the learning process and students still had difficulty in understanding the content of the lesson which resulted in low student learning outcomes.

Considering the above challenges, the researcher aims to conduct classroom action research in grade IV with the main aim of increasing student engagement and improving learning outcomes. Therefore, the researcher chose the research title: "Improving Student Learning Outcomes by Using Picture Media on the Structure and Function of Plant Parts in Science Lessons in Grade IV of UPTD SD Negeri Sawah Baru". Learning outcomes refer to the behavioral changes students experience as a result of engaging in educational activities. The nature of these changes depends largely on the content being learned. For example, when students focus on acquiring knowledge about a concept, they gain deeper mastery of that concept (Rifa'i, 2009: 85).

Learning outcomes refer to changes in overall behavior, rather than focusing solely on one aspect of human ability. These learning outcomes can be seen from changes in student behavior, which can be detected and assessed through knowledge, attitudes, and skills. As stated by Hamalik (2012:30), change is understood as growth and development beyond a previous state, such as moving from a lack of knowledge to knowledge, and from a lack of understanding to achieving understanding. As stated by Ahmadi and Amri (2010: 116), media functions as a resource that helps students understand and

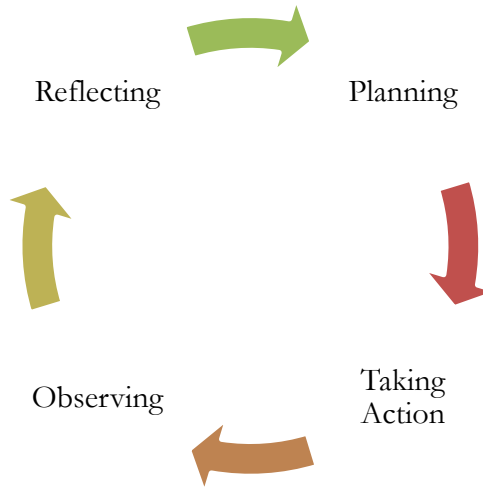
retain information more effectively than traditional face-to-face teaching and lectures that do not utilize any supporting materials.

Learning media functions as a tool designed to communicate educational messages effectively (Daryanto, 2010: 4). Learning media plays an important role in the communication process between students, educators, and teaching materials. From the definitions provided, we can conclude that learning media serves as a channel for conveying messages, information, or educational materials to students. More broadly, learning media encompasses various components within the learning environment, all of which serve to engage and stimulate students in the learning process.

By utilizing visual media, teachers can convey understanding and illustrate learning with great clarity. Furthermore, using visual media as a learning tool can provide students with hands-on experience, thereby stimulating their learning activities. This stimulation can ultimately increase student motivation and improve their learning outcomes. This explanation is reinforced by Chofshoh, Umi (2018: 17), who explains that "Through interactions with interesting real objects, children, especially lower-grade students, will gain a lot of information, making it easier for them to understand."

## **METHOD**

The research subjects were 31 students in Grade 4 (Four) of the 2024/2025 academic year, consisting of 11 males and 20 females. This research was conducted at the UPTD SDN Sawah Baru with the address Jalan Cendrawasih Raya No.2 RT.004/003 Sawah Baru Ciputat, South Tangerang City. The flow of classroom research according to Wardani., Wihardit, Kuswaya. (2021: 2.4): is as follows:



**Picture 1.** Action Research Flow

When conducting classroom action research, quantitative and qualitative methods were used for data analysis. Quantitative data were obtained from the results of student learning assessments for each cycle and analyzed by calculating the student's level of mastery using the following formula (Wardani., Wihardit, Kuswaya. (2021):

$$\text{Level of Mastery} = \frac{\text{Number of Correct Answer}}{\text{Number of Questions}} \times 100\%$$

To calculate the average student score, you can refer to the formula proposed by Wardani, Wihardit, and Kuswaya (2021: 5.19) as follows:

$$\bar{x} = \frac{\sum f x_i}{n}$$

Meanwhile, qualitative data was obtained from observation sheets using the PKP Simulation Assessment Tool 1 (APS-PKP 1) and the PKP Simulation Assessment Tool 2 (APS-PKP 2) and analyzed by calculating the learning improvement practice score using the formula (Wardani, et al. (2020: 49)):

$$Pr = \left( \frac{1R + 2K}{3} \right) \left( \frac{100}{5} \right)$$

Information:

Pr : Value of Learning Improvement Practices

R : Learning Improvement Plan Value (APS-PKP 1 obtained from the Improvement RPP)

K : Average Value of Learning Improvement Practice Performance (APS-PKP 2 based on Teaching Performance linked to RPP Improvement)

100 : Scale used for the value of PKP learning improvement activities

5 : The value scale used in the APS PKP PGSD

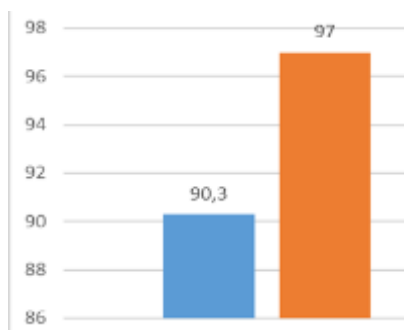
In addition, the value conversion guidelines as described by Suharsimi Arikunto (2016: 245) in the work of Dika Dian Murjanto (2020) are as follows:

**Table1.** Value Conversion Guidelines

| Final Score | Category   |
|-------------|------------|
| 80-100      | Very good  |
| 70-79       | Good       |
| 60-69       | Enough     |
| 50-59       | Not enough |
| 0-49        | Very less  |

## RESULTS AND DISCUSSION

Based on the results of the implementation of the learning improvement simulation, the following findings were obtained: The results of observations on the simulation of learning improvements using APS-PKP 2 obtained data as shown in the graph.5 below.

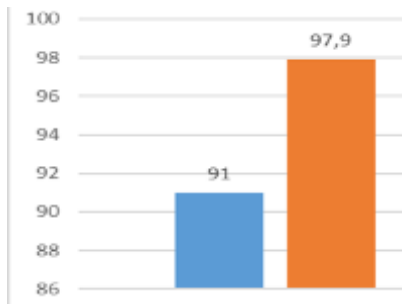


**Picture 2.** Simulation of Learning Improvement Using APS-PKP

The data presented in the graph above shows that the simulation aimed at improving learning resulted in a significant improvement of 6.7 points. In the first cycle, the score was 90.3, which is categorized as “very good,” while in the second cycle, it increased to 97, maintaining the same classification. The implementation of the simulation brought several benefits, including (1) increased student engagement in learning, (2) increased enthusiasm among students, and (3) dynamic two-way interaction in the classroom. However, the simulation also revealed several disadvantages: (1) teachers struggled to manage the classroom environment effectively, and (2) certain students remained less engaged and difficult to control.

The above is in line with the opinion of Ibrahim and Nana Syaodih (2003: 119) in Riyana, et al. (2021: 1625) which is contained in the literature review of this report, page five, paragraph one.

The following are the results of the assessment of the revised simulation using APKG-PKP 2. The data obtained are as shown in graph 6 below:

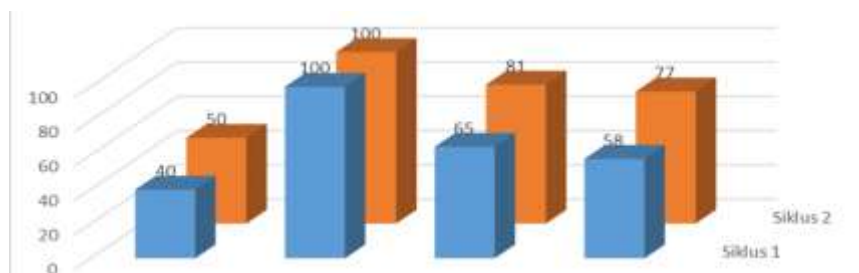


**Picture 3.** Revised Simulation Using APKG-PKP

Based on the graph above, it was found that the simulation of the learning improvement implementation showed a change of 6.9 points. In the first cycle, the score was 91, which is in the excellent category. Meanwhile, in the second cycle, the score increased to 97.9, which is also in the excellent category.

During the implementation of the simulation, the advantages were shown, namely (1) stimulating student activity in learning, (2) students became enthusiastic in learning, (3) class interaction was two-way. In addition, during the implementation of the simulation, there were weaknesses, namely: (1) teachers were less able to condition students, (2) there were still students who were less controlled.

The results of observations regarding students' learning abilities in the simulation of implementing learning improvements show the data contained in the following graph 7.



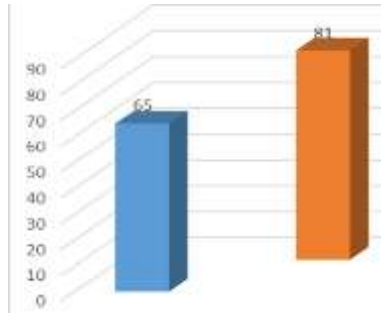
**Picture 4.** Student Learning Observation Results

Implementing Learning Improvement will result in an increase in scores as follows: (a) with a minimum score of 10 points. Initially, cycle 1 received 40 (very poor category) and cycle 2 received 50 (very poor category). (b) The average is 16 points. Initially, in cycle 1 there were 65 entries (moderate category) and in cycle 2 there were 81 entries (very good category). In addition, there was a change in the percentage of students achieving the KKM of 19%. Initially, it was 58% in cycle 1 and 77% in cycle 2.

During the simulation, the learning improvement demonstrated a positive effect, namely that the use of visual media improved student understanding, resulting in improved learning outcomes. Furthermore, there were also weaknesses, namely that some students were still unfocused and did not follow the lesson effectively, resulting in below-average learning outcomes for the class.

The above is in line with the opinion of Winkel (1991:42) in Fitrianingtyas (2017) which is contained in the literature review of this report, page six, paragraph three.

The results of observations on the simulation of the implementation of learning improvements with APS-PKP 2 found data as shown in the graph.8 below.



**Picture 5.** Observation results of the simulation of the implementation of learning improvements with APS-PKP 2

Based on graph 3.4 above, it was found that the simulation of the implementation of learning improvements showed an increase in the average student learning outcomes on the material Structure and function of plant parts at UPTD SDN Sawah Baru in the 2024/2025 Academic Year of 16 points, which were originally in cycle 1 at 65 (sufficient category) and in cycle 2 at 81 (very good category). During the simulation of the implementation of learning improvements, there were advantages, namely: (1) the learning process became effective, interactive and fun, (2) provided meaningful learning experiences and (3) fostered student learning motivation. However, during the implementation of the simulation, there were also weaknesses, namely that there were still some students who did not want to try to demonstrate concrete object media so that these students had not received meaningful learning experiences.

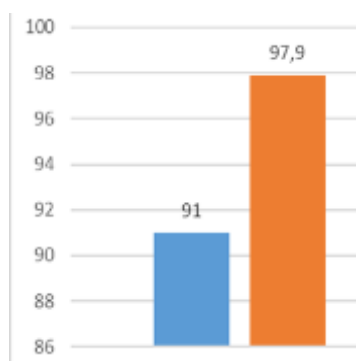
This is in line with the opinion of Chofshoh, Umi. (2018: 17) which is contained in the literature review of this report, page eight, paragraph one.

The results of this study are in line with the results of research conducted by Siregar, Ruslan. (2017) with the title "Use of Image Media to Improve Science Learning Outcomes in Elementary School Students" which was conducted at the UPTD of Sawah Baru State Elementary School.

Based on the results of the study, it is known that there is an increase in the percentage of science learning outcomes of 5th grade elementary school students through the use of image media, namely in the pre-cycle the percentage was 72.1, in cycle 1 it increased to 82.3 and in cycle 2 it increased again to 86.1. This shows that the use of image media can improve students' science learning outcomes.

The following are the results of the assessment of the revised

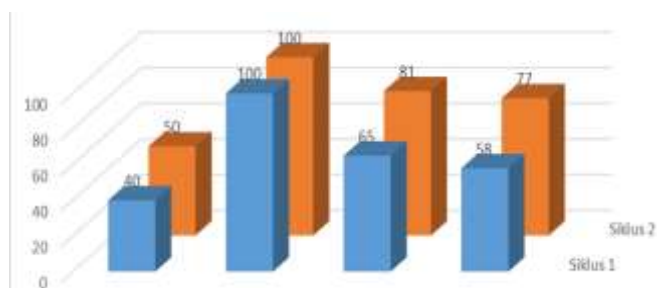
simulation using APKG-PKP 2. The data obtained are as shown in the graph.9 following:



**Picture 6.** Assessment Results of Revised Simulation Using APKG-PKP

Based on the graph above, it was found that the simulation of the implementation of learning improvements showed a change of 6.9 points. Initially it was 91 (category "very good") in cycle 1 and 97.9 (category "very good") in cycle 2. During the implementation of the simulation, the advantages were (1) stimulating student activity in learning, (2) students became enthusiastic in learning, (3) class interactions were two-way. In addition, the implementation of the simulation showed weaknesses, namely: (1) teachers were less able to condition students, (2) there were still students who were less controlled.

From the results of observations of student learning outcomes while simulating the implementation of learning improvements, data was obtained as in Graph 10 below.

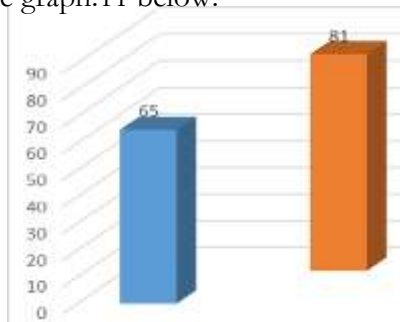


**Picture 7.** Observation Results of Student Learning Outcomes in the Simulation of Implementation of Improvements

Based on the graph 10 above, it is known that the students' learning outcomes in the simulation of implementing learning improvements show an increase in scores, including: (a) the lowest being 10 points. Initially, cycle 1 received 40 (very poor category) and cycle 2 received 50 (very poor category). (b) The average is 16 points. Initially, in cycle 1 there were 65 entries (moderate category) and in cycle 2 there were 81 entries (very good category). In addition, the percentage of students who achieved the KKM experienced a change of 19%. Initially 58% in cycle 1 and 77% in cycle 2.

The simulation of the learning enhancement implementation revealed several advantages. In particular, the integration of visual media significantly improved student comprehension, resulting in improved learning outcomes. However, the simulation also highlighted some drawbacks, as some students remained unfocused and disengaged, causing their concentration to fall below the class average. The above is in line with the opinion of Winkel (1991:42) in Fitrianingtyas (2017) which is contained in the literature review of this report, page six, paragraph three.

The results of observations on the simulation of the implementation of learning improvements with APS-PKP 2 found data as shown in the graph.11 below.



**Picture 8.** Observation Results of the Simulation of the Implementation of Learning Improvements with APS-PKP

Based on graph 11 above, it was found that the simulation of the implementation of learning improvements showed an average increase in student learning outcomes on the material Structure and function of plant parts at SDN Sawah Baru in the 2024/2025 academic year of 16 points, initially 65 points in cycle 1 (category 'satisfactory') and 81 points in cycle 2 (category 'very good').

During the simulation of the implementation of learning improvements, there were advantages, namely: (1) the learning

process became effective, interactive and enjoyable, (2) provided meaningful learning experiences and (3) increased student learning motivation. However, during the simulation implementation, there were also weaknesses, namely that there were still some students who did not want to try demonstrating concrete object media so that these students had not received meaningful learning experiences.

This is in line with the opinion of Chofshoh, Umi. (2018: 17) which is contained in the literature review of this report, page eight, paragraph one.

The results of this study are in line with research conducted by Siregar and Ruslan (2017) entitled "Using Image Media to Improve Science Learning Outcomes of Elementary School Students" and conducted at SD Negeri 010 Ratu Sima, Dumai Selatan, Pekanbaru.

Based on the results of the study, it is known that there is an increase in the percentage of science learning outcomes of fourth-grade elementary school students through the use of image media, namely in the pre-cycle the percentage was 72.1, in cycle 1 it increased to 82.3 and in cycle 2 it increased again to 86.1. This shows that the use of image media can improve students' science learning outcomes.

## **CONCLUSION**

The results of classroom action research showed a significant increase in the learning outcomes of fourth-grade students of SDN Sawah Baru, South Tangerang City, regarding the structure and function of plant parts in science learning. This increase was seen from the average daily test scores which continued to increase after the application of picture media in cycles I, II, and III. Students' mastery of the learning material has shown improvement. This is evidenced by the increased completion rate of daily tests after using visual media in Cycles I, II, and III. The use of visual media can improve student engagement and learning outcomes in science subjects. It has been proven that learning using image media can improve student learning outcomes and activities in Natural Sciences subjects, so we suggest that in teaching and learning activities, teachers are expected to use image media as an alternative. This activity is very useful for teachers and students and can be used continuously in science classes and other subjects.

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