



Efforts to Improve the Achievement of Science Learning Outcomes in Grade IV Elementary School are Assisted Through Guessing Games

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ABSTRACT

Despite the usage of learning media, science learning outcomes remain low. The kids' learning outcomes, which are still below the KKM, demonstrate this fact. Therefore, the goal of this study is to enhance class IV students' scientific learning outcomes by using picture guessing games. In order to improve science learning outcomes relating the properties of light in class IV at SD 1 Sungai Pedada Kec. Tulung Selapan Kab. OKI Semester I for the 2023-2024 academic year, the researcher intends to conduct research in class IV at SD 1 Sungai Pedada by adopting an image guessing game. This study, which encompasses two cycles of classroom action research, use observation techniques to measure increases in teacher and student engagement, exams to measure increases in student learning outcomes, and the gathering of research-related data. Thirteen male and twelve female fourth-graders made up the research subjects. Complete learning outcomes of 71,20 in cycle I and 86,48 in cycle II could be obtained based on the data analysis results; there was a 15.28% difference in the average interval score percent. There was a 5,08% rise based on the pre-cycle comparison of cycles I and II. It has been determined that using the picture guessing game in science classes in class IV SD 1 Sungai Pedada can enhance student learning outcomes.

ARTICLE INFO

Article history:

Received

10 January 2024

Revised

15 January 2024

Accepted

25 February 2024

Key Word

Science Learning Outcomes, Picture Guessing Game, Material: Properties of Light

How to cite

<http://pusdikra-publishing.com/index.php/jsr>

Doi

[10.51178/jsr.v5i1.1787](https://doi.org/10.51178/jsr.v5i1.1787)



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INTRODUCTION

According to Triwiyanto (2014), education is the process of teaching and learning that occurs throughout a person's life with the goal of enhancing their capacity to complete formal, non-formal, and informal learning opportunities. It is possible to characterize it in terms of education as a deliberate and consistent endeavor to establish a learning environment that supports a student's learning process during the learning process. The goal of education is to maximize each student's potential so they can grow

into people who can benefit their own community, state, and country. To satisfy fundamental human needs, such as the capacity to consider how to survive and thrive in this world, education is a must.

Learning science is a process of discovery that motivates students to participate and become actively involved, rather than only memorizing facts. The learning model requires the application of all learning approaches, strategies, methods, techniques, and tactics (Kelana & Wardani, 2021). An successful learning strategy in the context of Natural Science (IPA) education must inspire students to actively engage in the process of discovery. This implies that in addition to learning already-known material, students will participate in learning exercises to solve problems and develop a deeper comprehension of science education. Each learner will benefit from an efficient and fulfilling learning experience as a result.

Innovative and enjoyable methods can be used in elementary classrooms to improve the outcomes of science instruction, particularly when it comes to information on the characteristics of light. Using a photo guessing game is one efficient technique. Students can grasp these concepts more actively and enthusiastically when gaming components are included into the learning process. Students can practice their interactive recognition of light qualities by guessing photos. Students may be inspired to collaborate with one another and think creatively as a result of this learning. It is believed that by using a playful approach, pupils will comprehend the subject matter more fully and achieve greater learning outcomes.

It can be challenging for educators to present curriculum in a way that supports high-quality learning. There are still flaws and restrictions in the way natural science is taught in schools, particularly when it comes to the use of games. This will continue to happen as long as professors of natural science think that using games to teach and learn is not that vital.

As defined by Dewi et al. (2021), Natural Science (IPA) is an ordered body of knowledge derived from reality as it is revealed by natural events and developed through scientific procedures and attitudes. Natural science (IPA) is a journey of discovery as well as the mastery of a body of knowledge made up of concepts, ideas, and facts. It is envisaged that science education will serve as a means of teaching pupils about the natural world and about themselves, with opportunity to apply what they learn to real-world situations.

How well students control the instructional information is determined by looking at their learning results (Kusrini, 2022). What a person learns via his learning activities is the real outcome. These findings demonstrate how someone approaches or participates in their educational endeavors (Johannes, 2021). Science education must help cultivate students' scientific mindsets. An attitude that is flexible, critical, open, creative, meticulous, and environmentally conscious is what is known as a scientific

attitude. This idea comes up during the science learning process, but it becomes especially relevant after the understanding and application phase (Kumala, 2016).

Learning outcomes demonstrate the effectiveness of learning activities following student participation. The learning outcomes explain the methodology by which the degree of student success in comprehending the subject matter is assessed. The goals of learning are the same as the accomplishments of learning. the benefits that pupils have acquired after going through the classroom learning process. Students' learning outcomes affect their capacities during the learning process, which affects their grades. The student's ability to modify their behavior continues even after the learning exercise itself. The benchmark of student learning outcomes is employed to demonstrate that learning objectives are met as planned.

Including games that are appropriate for the child's learning style in the process is a crucial step in raising learning achievement. It is believed that by introducing games into the classroom, kids will become more engaged, active, and enthusiastic about learning. This will foster an enjoyable and productive learning environment and have a good effect on student progress. Thus, it might alter how people learn. It is, nevertheless, the hardest lesson to comprehend because of the kids' disinterest in science. The learning outcomes for students are impacted by this.

On February 26, 2024, observations were made at SD 1 Sungai Pedada Kec. Tulung Selapan Kab. OKI . The class IV homeroom teacher observed the application of the lessons, particularly the science lessons. The utilization of the lecture style by educators and a lack of resources to provide students with examples of the subject covered in books are two issues that teachers encounter during the teaching and learning process.

Thus, its influence on the learning results of students in scientific classes is minimal. The study concentrated on the qualities of light, a scientific subject that presents challenges in the field, during field observations. This is among the causes of children's lack of confidence.

Previous researchers used an image guessing game in class IV to enhance student learning outcomes in plant parts courses. They conducted this investigation. Thus, prior research serves as a guidance for researchers. Consequently, photo guessing games have piqued the interest of researchers who hope to enhance student learning results and boost children's self-confidence.

Everyone enjoys playing games, but elementary school kids especially do. Children can learn about the different images seen in the game Guess the Picture in addition to having fun (Izatusholihah, 2021). Playing picture guessing games has an impact on kids' verbal, cognitive, and psychomotor development. Furthermore, because they can exchange expertise and learn new things through this game.

A teacher might utilize the photo guessing game as a means of stimulating pupils' interest in the subject matter. By using photo guessing media, teachers can pique

students' curiosity about the picture they supplied, which will motivate them to pay attention to the lesson topic (Mufidah & Badrus, 2022). Games are used to present information and can make learning enjoyable. Putri (2022) lists the photo guessing game as one of the activities that people find entertaining to play. Picture guessing games help kids learn new information, enhance their comprehension so they can think more critically, solve issues, ask and answer questions, and assist language development.

In the photo guessing game, picture cards may include many sets of images or other items. Each student's playing cards should match the size of the learning resources used in the class. The game's objective is to motivate and inspire children to respond in the expected manner. claims that playing photo guessing games has several benefits for kids' learning, one of which is that they can use the picture to guess the picture that is still a mystery.

Procedures for the picture guessing game that researchers employ to enhance learning outcomes: each student receives the game's rules, or instructions, prior to beginning the game. It is the turn of each pupil to select the keywords that the teacher has prepared by moving forward. Students mimic the actions in the image after selecting pertinent keywords. The teacher describes the image to the class after they have guessed what it is.

Sight is connected to certain characteristics of light. The majority of students mistakenly think that when light strikes an item during the seeing process, our eyes emit the light; in reality, light is reflected by our eyes. Enhancing students' capacity for critical, rational, methodical thought as well as their disciplined, impartial, and truthful demeanor in daily life are among the objectives of science education in the classroom (Kurnia, 2022). When learning, pupils do not comprehend the qualities of light because they just look at books or pictures; they also find it easy to forget abstract concepts when teachers explain them without using actual media. Consequently, educators are forced to impart the teachings that students have acquired again (Istidah et al., 2022). Light has a wide range of characteristics, including the ability to go straight, reflect, pass through transparent things, be refracted, and split into several hues (Erfan & Maulyda, 2021).

The aim of this study was to investigate how class IV students at SD 1 Sungai Pedada were using the photo guessing game. in order for students to complete the KKM in science classes about the properties of light in accordance with the learning outcomes, particularly in science learning.

RESEARCH METHOD

A research study's soundness is guaranteed by a set of procedures known as research methodologies. Initial thoughts and impressions from earlier study are

combined to generate the problem formulation. Class action research is the method used here. Classroom Activities According to Mualimin and Cahyadi (2014), research is an intentional activity conducted in a room with the goal of resolving issues or enhancing the caliber of learning. As a result, deliberate behaviors that take the form of learning activities are observed in the classroom simultaneously.

The process of conducting classroom action research involves creating a lesson plan that outlines the activities that both teachers and students will carry out, providing the tools or resources needed, such as instructional aids and visual media, observing students' work and processes, analyzing data from observations and student work, and displaying the design's outcomes. This involves modeling the execution of the steps by taking into account the time required for implementation and the manner in which the action is carried out.

Teachers can enhance classroom learning and school programs overall by implementing classroom action research as a strategic method. To accomplish learning objectives, learning activities can include a variety of tactics or strategies (Pahleviannur et al., 2022). PTK seeks to apply instructional strategies that are appropriate for the issues and stage of student development in order to improve and increase learning. Teachers, students, learning resources or media, and the environment make up one of the components of a management learning strategy.

Teachers employ various approaches or plans known as learning strategies to accomplish certain learning goals. Learning techniques are intended to assist teachers in imparting the necessary knowledge, abilities, and comprehension to their students. The learning challenge is precisely defined by the employed approach. Problems that come up during the classroom learning process must be observed and investigated by teachers. Testing, observation, and data collection can assist in achieving this. Teachers can formulate precise and pertinent PTK objectives by precisely identifying the issues that arise. Teachers also need to set specific, well-defined goals. By employing this technique, educators can pinpoint issues within the class, create clear objectives, and focus their efforts on achieving these objectives. As a result, this learning technique aids educators in properly planning and carrying out instruction.

There were twenty-five class IV pupils at SD 1 Sungai Pedada who served as the research sample. There are twelve female and thirteen male pupils. SD 1 Sungai Pedada class IV was selected as the location because many students in this class have not yet attained the KKM and have low Natural Science (IPA) learning results. It is known that nine male and eight female students, totaling seventeen, had grades in the pre-cycle that nevertheless fell short of the KKM. There were three pupils in cycle II-two male and one female-compared to the fourteen in cycle I, which consisted of eight male and seven female students. The time frame for this study is February 26, 2024-March 1, 2024. The process of gathering scientific data for a certain goal is known as research methodology.

Among the research tools at SD 1 Sungai Pedada are the following: looking for, documenting, and creating the picture guessing game.

Teachers in class IV at SD 1 Sungai Pedada participated in the data analysis, which was done on February 17, 2024, for the pre-cycle. Following the completion of the pre-cycle, data processing was done. On Monday, February 26, 2024, cycle I was held following the pre-cycle. The characteristics of light were the subject matter covered in cycle I. The second cycle will resume on Tuesday, March 1, 2024.

RESULTS AND DISCUSSION

In the pre-cycle before the picture guessing game was held, 61.00%. In the first cycle, it was found that students were still awkward at playing the picture guessing game, unable to determine which picture was suitable or appropriate. The advantage of cycle I learning is the picture guessing game which makes it easier to explain material regarding the properties of light so that students understand it more clearly and easily. This results in more active and enthusiastic student involvement in learning, which is reflected in the percentage increase in the average value of cycle I.

Table 1.
Pre-cycle, Cycle I & II

No.	Student Name	Pre-cycle	Cycle I	Cycle II
1.	Alby Luthfy Al Fachry	65	80	85
2.	Al Farizi	65	75	90
3.	Aira Mulandari	60	65	80
4.	Ahmad Maulana	65	75	95
5.	Aissyakilla	50	65	85
6.	Chintia Dea Azzahra	70	90	100
7.	Diego	60	70	85
8.	Dila Fadila	65	85	95
9.	Dirga	45	65	85
10.	Dzikrullah Arza	50	65	85
11.	Erikasari	60	75	90
12.	Fathurrahman	60	65	85
13.	Gibran Atma Alhafiz	70	80	90
14.	Mawarni	55	60	75
15.	Muhammad Agil Sirodj	70	80	95
16.	Nabila Anggraini	50	55	85
17.	Nazarul Al Akbar	50	65	70
18.	Nindia Murti	60	65	85
19.	Noor Arief Zulfahmi	70	75	100
20.	Rendi	60	65	85
21.	Rini Aprilia	80	85	100
22.	Riski Ramadhan	55	65	70

23.	Tantri Agustin	55	65	67
24.	Tan Ratu Zahara	60	65	85
25.	Tengku Refal Saputra	75	80	95
	Jumlah	1525	1780	2162
	Rata-rata	61,00	71,20	86,48

Based on the results of the table before the cycle, cycles I and II, learning was carried out using a picture guessing game regarding the properties of light for class IV students at SD 1 Sungai Pedada Semester I for the 2023-2024 academic year, improving student learning outcomes in detail, such as showing the lowest score in every cycle. There are three cycles displayed: precycle, cycle I, and cycle II. Precycle has the lowest value of 45, cycle I has the lowest value of 55, while cycle II has the lowest value of 67. In addition, it can be seen that the previous average value students' score of 61,00 for Natural Sciences (IPA) lessons is still less than the minimum standard of perfection, namely: 70. After the first cycle was carried out, the students' average score increased to 71,20 for cycle I, and for cycle II it became 86,48. With the values above, it is clear that the learning process by applying the picture guessing game about the properties of light produces much better results than the usual learning method without using the picture guessing game.

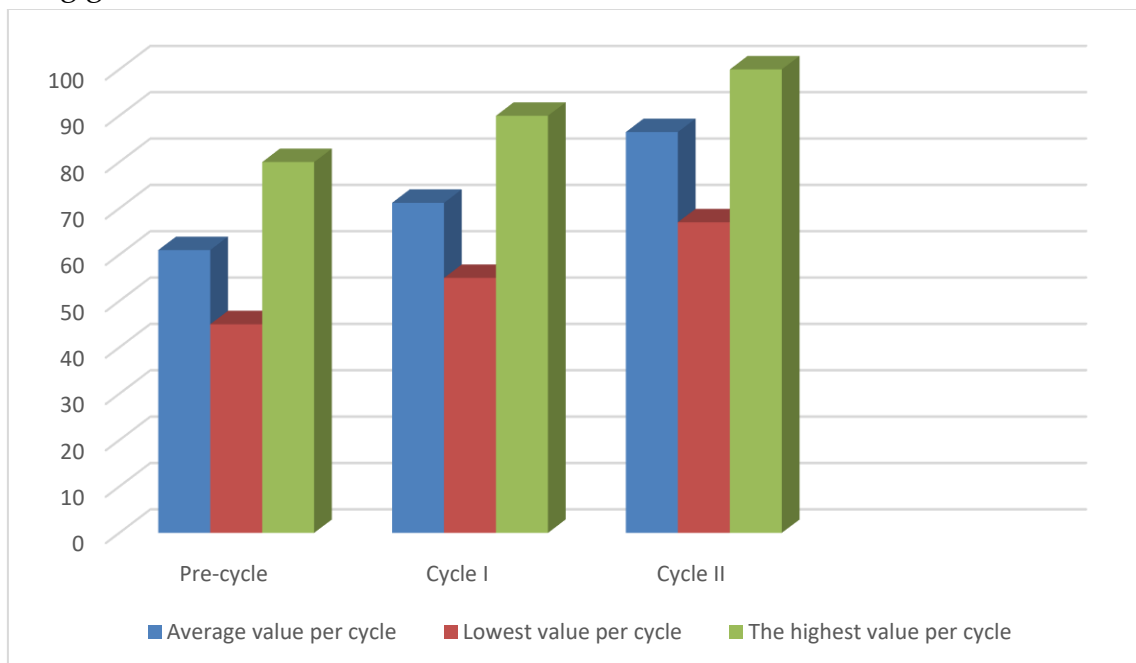


Figure 1.

Pre-Cycle, Cycle I, and II Comparison Charts

Judging from the graphic image above, it shows that the results of student learning completion in the pre-cycle average were recorded with a score of 61,00, cycle I was recorded with a score of 71,20. So the average obtained before cycle and cycle I, from these results there is a 10.2% difference between the average score intervals.

Regarding the average results of student learning completeness obtained from cycle I, it was 71,20 and cycle II was 86,48, so there was a difference in the comparison of the average interval scores of 15.28%. This graph provides information about changes in average values from cycle to cycle. It can be seen that the average score increases from pre-cycle to cycle I, and then increases again from cycle I to cycle II. This graphic explanation shows that there is a consistent increase in student scores. This states that there is an increase in performance from cycle to cycle and proves that the learning methods or strategies applied in that cycle are effective in increasing student achievement. So based on the results of the interval scores above, by using the picture guessing game, the material on the properties of light in science learning in class IV Semester I SD 1 Sungai Pedada was categorized as improving student learning outcomes well.

CONCLUSION

There are a number of shortcomings in the Natural Sciences learning program that were discussed during cycle I, one of which is that the students were not accustomed to learning through an image guessing game that was based on the characteristics of light. There was a 15.28% difference in the average score interval between cycle I's results, which were 71,20, and cycle II's findings, which increased by 86,48.

It can be determined that class IV students at SD 1 Sungai Pedada Semester I 2023/2024 academic year have improved their learning outcomes by employing a picture guessing game on the properties of light material using a picture guessing game for studying Natural Sciences (IPA). As a result, games can aid educators in the process of teaching. This description suggests that in order to develop gaming materials that let educators use graphic materials like images and photos, creativity is required. When used properly, games can enhance learning by bringing excitement, diversity, and interest to a number of educational initiatives (Mufidah & Badrus, 2022).

As was already noted, the author would like to offer recommendations for structuring the learning process. Teachers must constantly be creative in order to enhance the learning process that follows. Even if innovation happens quickly, it still demands rigorous planning and clear, pre-planned plans. The innovation that is implemented must be guided by the desires fulfilled, including the approach and plan for achieving a learning objective. Targets are set for invention because it will spur further innovation and advancement in the evolution of life. It is imperative for educators to offer a diverse range of educational activities to stimulate students' interest in learning, such as using educational games in the classroom.

Because the major objective is to enhance the teacher's learning process in order to boost student activity and learning outcomes, innovation in solving learning difficulties takes the shape of adopting effective learning models. This idea might have been done

earlier by other scholars or individuals. Subsequently, a researcher applies a learning strategy through methodologies, media, and other means by integrating or combining two learning models (Haerullah & Hasan, 2021). Using creative and innovative learning strategies, such picture guessing games, is how innovation is used to meet KKM-recommended student learning objectives.

Researchers conduct innovation activities during the observation or observation stage in collaboration with colleagues who are experts in the science learning section. Observations are made of both student activities during the learning process and teacher activities designed by researchers to support learning.

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