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**Improving Learning Results on Frame and Human Sense through the Application of Group Work Learning Models**

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 **ABSTRACT**

*The purpose of this study was: to determine student learning outcomes in the material frame and five human senses can be improved through the application of the group work learning model in Class V Public elementary school 8 North Tiworo. The benefits of this research are: (1)for teachers: by conducting classroom action research the teacher can find out the right method so that it can improve and improve the quality of the learning process in the classroom, so that the problems faced by students and by the teacher can be minimized, (2) for students: can improve their learning outcomes on subjects Science on the frame and five human senses material, (3) for schools: classroom action research can provide good input for schools to improve the quality of the science learning process. Based on the results of the cycle I action test, it was found that the classical student learning outcomes of the subject matter were 50% or as many as 12 students who obtained a value > 65 with an average value of 66.41, while the results of the evaluation of the second cycle action showed that the classical student learning outcomes of subject matter of 95.83% or as many as 23 students who get a value > 65 with an average value of 76.66. From the results of observation, evaluation and reflection in each action cycle, it can be concluded that through the application of the group work learning model it can improve student learning outcomes in the material of the Frame and Five Senses of Class V Students of Public elementary school 8 North Tiworo.*

**Keywords:** *Group Work Learning Model, Human Skeleton and Five Senses, Learning Outcomes.*

**I. INTRODUCTION**

 Education is an important thing in making humans knowledgeable, cultured, pious and able to face future challenges. With this education will also give birth to students who are smart and have the competence and skills to be developed in the midst of society. To make this happen is inseparable from the determining factors in the success of students in education. One of the main factors is the teacher's ability to use the method in the learning process.

In the learning process two-way communication occurs. Teaching is carried out by the teacher as educator, while learning is carried out by students or students. Based on this statement in learning, it is necessary to strive for class management regarding special conditions such as physical, intellectual, or emotional conditions to build a solid foundation, a sense of understanding, a network of sympathy, a sense of belonging as an effort to achieve the learning objectives. Classroom management is a series of teacher actions aimed at encouraging expected behavior and eliminating unexpected behavior, creating good interpersonal relationships and positive emotional conditions and creating and maintaining a productive and effective classroom organization. A good teaching and learning process is based on the existence of a good interpersonal relationship between student-teacher and / or students and the teacher occupies an important position for the formation of emotional conditions. Research shows that the social environment or classroom setting is a major psychological determinant of academic learning.

The low quality of education at every level and unit of education is one of the educational problems currently facing the Indonesian nation. Various attempts have been made to improve the quality of national education through curriculum development, increasing teacher competence, procuring books and teaching aids, educational facilities and improving school management. With these various efforts, it turns out that they have not shown a significant increase. The participation of schools in the delivery of education so far has been very lacking, teachers' participation in decision making is often neglected, even though changes occur or do not occur in schools, depending on the teacher. Teachers need to understand that whatever is done in the classroom when learning takes place has an influence, either positive or negative, on the quality and learning outcomes. The way the teacher presents learning, how learning activities are managed in the classroom, the way teachers interact with students is presumably carried out by the teacher in a planned manner with improvements and changes in both methods, strategies, media, and classroom management that are continuously being carried out so that it is expected to improve student learning outcomes.

Studies show that students learn more when lessons are satisfying, challenging and friendly and have a say in decision making. A network of sympathy and belonging, and understanding needs to be built to attract student involvement in learning. It is not only the intellectual aspect that determines the success of students in learning at school, the emotional aspect also influences it.

In the learning process at school, the teacher uses the lecture and question and answer method. The teaching teacher refers to the education unit level curriculum, using teaching materials that are in accordance with the subject matter and media that support the learning process. It is expected that with the learning process, students can play an active role so that the indicators expected in SBC can be achieved.

Based on the observations made in class V SDN 8 North Tiworo school year 201 8 /201 9 student scores on the Framework and the Five Senses of Man is not optimal. This can be seen in the data on the acquisition of student scores in that year, namely from 27 students of Class V SDN 8 North Tiworo , there were only 8 students or 29.62% who were able to achieve the standard score of KKM 65, while 19 students or 70.38% had not reached the KKM 65 standard. From these data, the authors make improvements and strive for better changes in student scores, the authors conclude that there are several reasons for teachers having difficulty working on the material Framework and the Five Senses of Humans in students, including (1). The learning model used by the teacher is not in accordance with the material being taught, (2). Lack of teacher understanding of the learning model, (3) Limited knowledge of teachers about the use of learning models. In addition, students also find it difficult to understand the human frame and five senses. This is due to several factors including (1). Boredom of students to the material taught during the learning process for teachers to use it only method monotonous, (2). Students are less active and care about the material provided during the teaching and learning process.

To answer the above problems, the authors provide an alternative learning model, namely the group work learning model in the human frame and five senses learning material, so that students are expected to be directly involved in the teaching and learning process.

**II. LITERATURE REVIEW**

* 1. **Understanding Learning**

Learning in a broad sense is the process of changing behavior which is expressed in the form of mastery, use and research of the attitudes and values ​​of basic knowledge and skills found in various fields of study or in various aspects of life or organized experience. Learning always shows a process of changing a person's behavior or personality based on certain practices or experiences (Rusyan, 1999: 81).

Purwanto (2006: 5) states that learning is any change that is relatively persistent in behavior that occurs as a result of training or experience. Sudjana (1998: 78) states that learning is a relatively permanent change in a behavioral tendency as a result of practice or training.

Usman (1992: 37), learning can be interpreted as a change in behavior in individuals thanks to the interaction between individuals and individuals and is more able to interact with their environment. Slamet o (2006: 6) learning is a process carried out by individuals to obtain a new behavior change, as a whole, as a result of the individual's own experiences in interaction with their environment.

From this opinion it can be concluded that learning is a conscious action taken by individuals to obtain changes in themselves due to environmental stimuli and mental processes, thereby increasing their knowledge.

* 1. **Learning outcomes**

According to Gagne (Dimyanti 2007: 71) learning is a complex activity. Learning outcomes in the form of capabilities. After learning people have skills, knowledge, attitudes and values. Learning according to Piaget's view, which argues that knowledge is formed by individuals because individuals interact continuously with the environment, and the environment changes. With the interaction with the environment, the function of the ingtelet is growing.

Learning outcomes are the results achieved by someone after learning which is marked by changes in that person. The change in question is a change in the level of learning outcomes and mastery. To measure learning outcomes must be in accordance with cognitive achievement goals that are tailored to students' abilities.

* 1. **Science Learning**

The word IPA is usually translated as Natural Science which comes from the word *Natural Science*, Natural Science is the knowledge of the universe and all its contents. As for knowledge itself means everything that is known by humans, Darmodjo (Samatowa 2006: 3). in his book says that the essence of science is a way or method of observing the universe.

According to Abruscato (Khaeruddin 2005: 15) learning science learning in class can: (a) develop student cognitive, (b) develop student affective (c) develop student psychomotor (d) develop student creativity and train students to think critically. Meanwhile, Budi (Samatowa 2006: 6) quotes several opinions from experts and suggests some details of the nature of science including: (1) Science is a building or series of concepts and conceptual schemes that are interconnected as a result of Conan's experimentation and observation (Samatowa 2006: 7), 2) Science is a building of knowledge obtained using the observation method (3) Science is a system for understanding the universe through data collected through controlled observation or experimentation (4) Science is a problem-solving activity by humans motivated by curiosity about nature in around him and the desire to understand, control, and manage him to meet his needs.

* 1. **Science Learning Outcomes**

Imron (1995: 3) states that as a result of learning, changes that occur in a person take place continuously, not statically. One change that occurs will cause the next change and will be useful for life or the next learning process. According to Mudzakir and Sutrisno (1997: 38) the learning process can be defined as the stages of changes in cognitive, effective, and psychomotor behavior that occur in students. These changes are positive in the sense that they are oriented towards a more advanced direction than in the previous situation.

In line with that, Winkel (1991: 161), states that student learning outcomes are one measure of the level of student success after experiencing learning. The learning experienced by students will produce a visible change in the learning outcomes obtained by students regarding the statements and assignments given by the teacher.

The view of some of the experts above, it can be concluded that learning outcomes are an indicator of changes that have been achieved by individuals after carrying out learning activities based on certain standards. Thus the learning outcomes of science learning are the values ​​achieved by students after studying science, especially the human frame and five senses with an assessment based on certain standards.

* 1. **Human Skeleton and Five Senses**

**2.5.1 The Human Framework Structure**

The human skeleton is divided into three parts, namely:

1. **Head frame**



1) The head frame is known as the skull

2) The skeleton of the head is round, composed of flat bones

3) The bones come together to form a joint but cannot be moved

**b. Body frame**

The body frame is composed of various bone acids, including:

1) The vertebrae, the joints between the bones can be moved forward or bent forward, sideways, so that the body can be bent.

2) The sternum is immovable

3) The ribs, joints of the ribs are movable.

4) There are flat bones in the body, for example the ribs and scapula.

5) The body frame forms a chest cavity which functions to protect the lungs, heart, liver and stomach.

**c. The limb frame**

1) The limb frame consists of a hand frame and a leg frame.

2) The arm and leg frames are composed of hard, pipe-shaped bones

3) Each bone is connected by a joint so that it can move.

**2.5.2. Human Framework Forms**

**a. Flat bones**



Examples: shoulder blades, sternum, ribs, pelvis, and skull bones.

**b. Short bones**



Examples: wrist bones, ankle bones, vertebrae and kneecap bones.

**c. Pipe bones**



Examples: arm bones, thighbones, and knuckles.

**2.5.3. Joints**

The connections between human bones are called joints. Some of the joints found in the human body are as follows:

a. Hinge joints, which are joints that can be moved in one direction.

 Examples: joints in the elbow, joints in the knee, and joints in the fingers hands and toes.



b. Bullet joints, which are joints that allow movement in all directions. Example: joints in the neck vertebrae at the top, joints in the shoulder, and joints in the hip.



c. Saddle joints, which are joints that move in both directions (side and forward). Example: the joint between the palm bone and the base of the thumb.



d. Sliding joints, which are joints where one end of the bone shifts the other end of the bone. Example: in the cubit bone and the bone of the pickaxe.



e. Swivel joint, the joint where one bone rotates around the other bone which acts as a shaft. Example: in the relationship between the atlas and the skull.



**2.5.4. Uses of the Human Body Frames**

1. Determines the shape of the body
2. Straighten up
3. Attachment of muscle or flesh
4. Protects the important and soft parts of the body
5. As a place forming blood cells
6. As a passive means of motion

**2.5.5 Caring For The Framework**

The frame must always be cared for in order to keep it healthy. Order can

affected by a disease or disorder, namely:

1. Kyphosis (the spine bends back)
2. Lordosis (habit of being too upright when sitting)
3. Scoliosis (habit of being on your side)



Diseases that can damage the skeleton, including:

1)  Polio can be prevented by giving the polio vaccine when children are under five years of age. Polio sufferers will experience paralysis so that the bones will shrink

2)  Rickets arises from a lack of vitamin D and morning sunshine. Rickets sufferers have weak leg bones and are X or O-shaped because they cannot bear weight

3)  Osteoporosis, a disease that causes bones to fracture or break easily, due to a lack of calcium (calcium). This disease usually affects the elderly.

4)  Rheumatism is pain in the joints. The joints commonly affected are the joints of the feet, hands and elbows.

**2.5.6 Human Senses**

The sense organs are tools in our body that can connect our bodies to the environment. By means of these senses we can get to know the environment. Tools senses humans there are five, namely the eyes, ears, nose, tongue, and skin. Fifth appliance senses that owned human named *five INDR a.*Tools senses we can function properly if the appliance senses that receive stimuli and pass it to the brain.

**III. RESEARCH METHODS**

**3.1 Research Subject, Place, and Time**

The implementation of this repair was carried out in Class V SDN 8 North Tiworo. The school year is 201 9 /20 20 with the number of students 24 people. This repair was carried out in three stages, namely the pre-cycle carried out on Monday, October 12, 2019. Cycle I was held on Friday 18 October 2019. Cycle II was held on Friday 25 October 2019.

* 1. **Learning Improvement Procedure Design**
		1. **Pre-Cycle Learning**
1. **Pre Cycle Action Plan**

 The implementation of this learning improvement is carried out in the pre-cycle stage, cycle I and cycle II. Each cycle is carried out in four stages, namely planning, implementation, observation / evaluation and reflection.

The work procedure can be broadly explained as follows:

At this pre-cycle planning stage, the writer and the teacher work together in connection with the improvement planning. The cooperation referred to is in terms of planning pre-cycle learning by taking the following steps:

1. Planning learning improvements by identifying problems first through pre-cycle learning.
2. Prepare a Learning Implementation Plan (RPP) material " Framework and Five Human Senses ".
3. Determine the implementation time and ask peers to observe.
4. **Implementing Pre Cycle Actions**

**3.2.2 Initial activity**

Delivering the expected indicators and competencies, the subject of " Human Framework and Five Senses ".

**3.2.3 Core activities**

**3.2.3.1 Exploration**

In exploration activities, the teacher:

* + - Understand the concept map of the human skeleton
		- Read the parts of the skeleton, and compare the bones of an infant and an adult human

**3.2.3.2 Elaboration**

In the elaboration activity, the teacher:

1) Describe the human skeleton:

- Head frame

- Body frame

- Limb frame

- Joints

2) Students mention the head frame

* + 1. **End activities**

Give conclusions and assign homework assignments.

**3.3 Pre-Cycle Observations**

* 1. According to peer observations as observers, the steps taken by researchers in pre-cycle activities were considered sufficient.
	2. Observations on core activities:
1. The explanation of the human frame and five senses is carried out sequentially.
2. Only some students can understand the material and are able to answer the practice questions given by the teacher.

**3.4 Pre Cycle Reflection**

The results obtained during the observation or evaluation stage were analyzed by the author's team (peers and school principals). The analysis is aimed at finding weaknesses that occur in science learning on the subject of “Human Framework and Five Senses " which will be corrected in pre-cycle, cycle I, and cycle II.

**3.5. Learning Cycle I**

* + 1. **Cycle action plan I**

An action plan to improve learning cycle I, the steps are the same as the pre-cycle and the improvements are focused on the material, namely:

1) Completeness and clarity of the human frame and five senses

2) Increase students' understanding of science lessons on the subject of the human frame and five senses .

**3.5.2 Implementing Cycle I Actions**

1. **Initial Activities**, rrepeating the previous meeting material.
2. **Core Activities**
	* + 1. **Exploration**

In exploration activities, the teacher:

* Collect previous meeting assignments
* Describing the limb frame
* Describing Joints:

|  |  |
| --- | --- |
| - Hinge joints   - Saddle joints   - Bullet joints    | - Swivel joints   - Sliding joints     |

1. **Elaboration**

In the elaboration activity, the teacher:

* + - Show the location of the joints in the human body **in *diligence,* *responsibility*and *carefulness.***
		- Describe the function of the skeleton, based on examples of everyday motion, or observing friends. What happens when humans do not have a frame.
		- Doing activities
		- Make conclusion of activities.
1. **Confirm**

In the confirmation activity, the teacher:

* Teacher asks questions about things that students do not know
* Teacher and students ask questions to correct misunderstandings, provide reinforcement and conclusions
* Understand that living things experience growth
* Plant growth is characterized by a higher stem and a large number of leaves
1. **Final Activity,** To conclude that:
* Living things move in various ways
* Living things have grown from small to large

**3.5.3 Observation Cycle I**

After carrying out the improvement of learning cycle I, the researcher immediately asked the observer "How was the learning process he did in cycle I? Are the planned learning steps as in the lesson plan and as expected?

**3.6. Learning Cycle II**

* + 1. **Cycle II Action Plan**

To further strengthen students' understanding and mastery of learning concepts, especially in the frame and five human senses and to find out the results of the overall material presented by researchers, it is still necessary to make improvements in cycle II learning.

Improvements in cycle II learning are carried out by providing formative tests with varied and more interesting forms of questions, so that students are more motivated to do the questions.

* + 1. **Implementing Cycle II Actions**
1. **Initial Activities,** Repeating the previous meeting material, and reading out the indicators.
2. **Core activities**
	1. ***Exploration***, In exploration activities, the teacher:
* Describe the disease that attacks the bones
* Knowing the correct body attitude.
	1. ***Elaboration***, In the elaboration activity, the teacher:
* Doing activities
* Knowing some disorders of the spine such as:

- Lordosis

- Kyphosis

- Scoliosis

Know how to maintain healthy bones by eating foods that contain vitamin D, calcium and phosphorus and exercising regularly.

1. ***Confirm***, In the confirmation activity, the teacher:
* Teacher asks questions about things that students do not know
* Teacher and student’s ask questions to correct misunderstandings, provide reinforcement and conclusions
1. **End activities,** Gives the conclusion that living things reproduce to preserve their kind

**3.6.3 Observation Cycle II**

The results of observations in cycle II were carried out through peer observations, namely there was a significant increase in the human frame and five senses learning material.

**3.6.4 Reflection Cycle II**

Learning material Framework and Human Senses with explanations accompanied by examples on learning media and exercises has been successful.

There are two kinds of performance indicators in research, namely:

1. Performance indicators related to teacher teaching and student learning activities.

2. Performance indicators related to improving student learning outcomes, namely if at least 85% of students have reached a minimum score of 65, which is in accordance with the Minimum Completeness Criteria (KKM) set by the school.

**IV. RESEARCH RESULTS AND DISCUSSION**

The presentation of the results of the improvements in this chapter is divided into two parts, namely a description of the results of the data processing cycle, and a discussion of each cycle.

**4.1 Description of Research Results and Discussion**

**4.1.1 Description of Pre-Cycle Implementation**

1. **Observations of Student Activities**

              Based on the results of observations of student activities carried out in science subjects, the material of Identifying the Skeleton and Five Human Senses of Class V SDN 8 Tiworo Utara can be described as follows :

**Table 1** **Observation of Student Activities in Pre Cycle**

|  |  |  |
| --- | --- | --- |
| ***No.*** | ***List of Student Activities*** | ***Score of Observation Results*** |
| ***Pre Cycle*** |
| 1 | Students Understand the concept map of the Human Skeleton | 2 |
| 2 | Students are motivated to take part in learning activities | 2 |
| 3 | Students explain the functions of the human frame and five senses | 2 |
| 4 | Students Explain the Skeleton and Five Human Senses | 2 |
| 5 | Students discuss understanding the five senses | 2 |
| 6 | Conducting a discussion about the human frame and five senses | 2 |
| 7 | Conducting discussions about the human frame and five senses | 2 |
| 8 | Summing up the results of the discussion and looking for common ground | 2 |
| 9 | Ask and answer about things that are not yet known | 2 |
| 10 | Correcting misunderstanding of the material  | 2 |
| 11 | Students do the exercises | 2 |
|  | ***Average Score*** | ***2*** |
|  | ***Category*** | ***Enough*** |

**Note: I = Less, 2 = Enough, 3 = Good, 4 = Very Good**

1. **Observation of Teacher Activities**

 In this improvement, the activities carried out by the teacher during the learning activities were also observed. Based on the results of observations of teacher activities carried out in Class V SDN 8 Tiworo Utara , the results obtained are:

**Table 2** **Teacher Activities in Pre Cycle**

|  |  |  |
| --- | --- | --- |
| ***No.*** | ***Observed Teacher Activity*** | ***Score of Observation Results*** |
| ***Pre Cycle*** |
| 1 | Give apperception to students | 2 |
| 2 | Provide motivation to arouse students' passion for learning | 2 |
| 3 | Guiding students in Identifying the Skeleton and Five Human Senses | 2 |
| 4 | The teacher directs students in identifying the human frame and five senses | 2 |
| 5 | Provide directions regarding the student discussion process | 2 |
| 6 | Summing up how to identify the human frame and five senses | 2 |
| 7 | The teacher tests the students' abilities and skills in practice questions | 2 |
| 8 | The teacher provides opportunities for students to ask questions | 2 |
| 9 | Correcting misconceptions provides reinforcement and conclusions | 2 |
| 10 | The teacher reflects on the lesson | 2 |
| 11 | Provide evaluation | 2 |
| 12 | Give homework | 2 |
|  | ***Average Score*** | ***2*** |
|  | ***Category*** | ***Enough*** |

**Note: I = Less, 2 = Enough, 3 = Good, 4 = Very Good**

1. **Evaluation**

              Evaluation is intended to measure the extent to which the teacher has implemented the learning improvement plan using the discussion method during the learning process. The results of the learning evaluation of Class V SDN 8 North Tiworo are:

**Table 1 .1**

**List of Pre-Cycle Learning Outcomes for Class V SDN 8 Tiworo Utara**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Student name / initials** | **KKM** | **Learning outcomes** | **Completed** | **Not complete** |  |
| 1 | WA | 6 5 | 60 |   | 🗸 |  |
| 2 | RD | 6 5 | 65 | 🗸 |   |  |
| 3 | EF | 6 5 | 65 | 🗸 |   |  |
| 4 | HT | 6 5 | 60 |   | 🗸 |  |
| 5 | MR | 6 5 | 70 | 🗸 |   |  |
| 6 | VA | 6 5 | 58 |   | 🗸 |  |
| 7 | VT | 6 5 | 60 |   | 🗸 |  |
| 8 | MA | 6 5 | 59 |   | 🗸 |  |
| 9 | AH | 6 5 | 70 | 🗸 |   |  |
| 10 | AL | 6 5 | 60 |   | 🗸 |  |
| 11 | AD | 6 5 | 62 |   | 🗸 |  |
| 12 | AF | 6 5 | 65 | 🗸 |   |  |
| 13 | FI | 6 5 | 60 |   | 🗸 |  |
| 14 | MH | 6 5 | 60 |   | 🗸 |  |
| 15 | FD | 6 5 | 60 |   | 🗸 |  |
| 16 | HE | 6 5 | 60 |   | 🗸 |  |
| 17 | M N | 6 5 | 70 | 🗸 |   |  |
| 18 | MW | 6 5 | 58 |   | 🗸 |  |
| 19 | RG | 6 5 | 59 |   | 🗸 |  |
| 20 | DF | 6 5 | 70 | 🗸 |   |  |
| 21 | RE | 6 5 | 70 | 🗸 |   |  |
| 22 | TY | 6 5 | 60 |   | 🗸 |  |
| 23 | HU | 6 5 | 59 |   | 🗸 |  |
| 24 | JH | 6 5 | 60 |   | 🗸 |  |
| **amount** | **1500** |  |  |
| **Average** | **62.5** |  |  |
| **Percentage%** |  | **33.33%** | **66.67%** |

**Information:**

**Number of students completed: 8**

**Number of incomplete students: 16**

**Classical: Incomplete**

1. **Reflection**

From the results of the observation of the teacher's observation sheet, student observation sheet and the results of the evaluation of learning, it can be concluded that the results achieved in this pre-cycle are not in accordance with the specified KKM. This is caused by several factors including:

1. The average score of student activity in the pre-cycle was 2 which were in the sufficient category. The score above shows that student activity in the process of learning the basic science of the human frame and five senses using the group work method in this pre-cycle is still lacking. This is because students have not been able to discuss the material to identify the human frame and five senses; students have not been able to identify the human frame and five senses.
2. The average score obtained from the teacher's observation sheet is 2 which are in the sufficient category. From the observations made on teacher activities, it was found that several things made the assessment score vulnerable to a score that was considered sufficient, namely: the teacher was not able to provide an understanding of the material of the Frame and Five Human Senses, and was not able to provide direction to students in discussing properly and wisely.
3. The average value of the evaluation of the science learning outcomes of Class V Public Elementary School 8 North Tiworo students who were taught using the group work method was 62.50.

              So the implementation of learning improvements needs to be done to provide understanding and increase student learning outcomes.

* 1. **Description of Implementation of Cycle I**
	2. **Observations of Student Activities**

             In cycle I, the student activity sheet was still the same as that used in cycle I. However, in cycle I, the teacher gave more emphasis to students so that the results were achieved maximally. The observations of Class V Public Elementary School 8 North Tiworo students on the science subject of the Frame and Five Human Senses using the group work method are:

**Table 4 Student Activities and Results Achieved in Cycle I**

|  |  |  |
| --- | --- | --- |
| ***No.*** | ***List of Student Activities*** | ***Score of Observation Results*** |
| ***Cycle I*** |
| 1 | Students understand concept maps about human life | 3 |
| 2 | Students are motivated to take part in learning activities | 3 |
| 3 | Students explain the functions of the human frame and five senses | 3 |
| 4 | Students Explain the Skeleton and Five Human Senses | 2 |
| 5 | Students discuss understanding the five senses | 2 |
| 6 | Conducting a discussion about the human frame and five senses | 2 |
| 7 | Conducting discussions about the human frame and five senses | 2 |
| 8 | Summing up the results of the discussion and looking for common ground | 2 |
| 9 | Ask and answer about things that are not yet known | 2 |
| 10 | Correcting misunderstanding of the material  | 2 |
| 11 | Students do the exercises | 2 |
|  | ***Average Score*** | ***2, 27*** |
|  | ***Category*** | ***Enough*** |

**Note: I = Less, 2 = Enough, 3 = Good, 4 = Very Good**

1. **Observation of Teacher Activities**

The results of observations of teacher activities in cycle II, which were carried out in Class V Public Elementary School 8 North Tiworo , can be described as follows.

**Table 5 .Teacher Activities in Cycle I**

|  |  |  |
| --- | --- | --- |
| ***No.*** | ***Observed Teacher Activity*** | ***Score of Observation Results*** |
| ***Cycle I*** |
| 1 | Give apperception to students | 3 |
| 2 | Provide motivation to arouse students' passion for learning | 3 |
| 3 | Guiding students in Identifying the Skeleton and Five Human Senses | 3 |
| 4 | The teacher directs students in identifying the human frame and five senses | 3 |
| 5 | Provide directions regarding the student discussion process | 3 |
| 6 | Summing up how to identify the human frame and five senses | 3 |
| 7 | The teacher tests the students' abilities and skills in practice questions | 3 |
| 8 | The teacher provides opportunities for students to ask questions | 2 |
| 9 | Correcting misconceptions provides reinforcement and conclusions | 2 |
| 10 | The teacher reflects on the lesson | 2 |
| 11 | Provide evaluation | 2 |
| 12 | Give homework | 2 |
|  | ***Average Score*** | ***2. 6*** |
|  | ***Category*** | ***Enough*** |

**Note: I = Less, 2 = Enough, 3 = Good, 4 = Very Good**

1. **Evaluation**

          In cycle I, the teacher provides more motivation for the evaluation that will be given to students. The results of the learning evaluation of Class V SDN 8 Tiworo Utara in cycle I are:

**List of Learning Results Cycle I**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Student's name** | **KKM** | **Learning outcomes** | **Completed** | **Not complete** |  |
| 1 | WA | 6 5 | 60 |   | 🗸 |  |
| 2 | RD | 6 5 | 77 | 🗸 |   |  |
| 3 | EF | 6 5 | 77 | 🗸 |   |  |
| 4 | HT | 6 5 | 60 |   | 🗸 |  |
| 5 | MR | 6 5 | 70 | 🗸 |   |  |
| 6 | VA | 6 5 | 58 |   | 🗸 |  |
| 7 | VT | 6 5 | 60 |   | 🗸 |  |
| 8 | MA | 6 5 | 62 |   | 🗸 |  |
| 9 | AH | 6 5 | 64 |   | 🗸 |  |
| 10 | AL | 6 5 | 80 | 🗸 |   |  |
| 11 | AD | 6 5 | 75 | 🗸 |   |  |
| 12 | AF | 6 5 | 70 | 🗸 |   |  |
| 13 | FI | 6 5 | 85 | 🗸 |   |  |
| 14 | MH | 6 5 | 64 |   | 🗸 |  |
| 15 | FD | 6 5 | 67 | 🗸 |   |  |
| 16 | HE | 6 5 | 64 |   | 🗸 |  |
| 17 | M N | 6 5 | 66 | 🗸 |   |  |
| 18 | MW | 6 5 | 58 |   | 🗸 |  |
| 19 | RG | 6 5 | 59 |   | 🗸 |  |
| 20 | DF | 6 5 | 65 | 🗸 |   |  |
| 21 | RE | 6 5 | 67 | 🗸 |   |  |
| 22 | TY | 6 5 | 60 |   | 🗸 |  |
| 23 | HU | 6 5 | 66 | 🗸 |   |  |
| 24 | JH | 6 5 | 60 |   | 🗸 |  |
| **amount** | **1594** |  |  |
| **Average** | **66.41** |  |  |
| **Percentage%** |  | **50%** | **50%** |

**Information:**

**Number of students completed: 12**

**Number of incomplete students: 12**

**Classical: Not finished**

1. **Reflection**

              From the observations of the teacher's observation sheets, student observation sheets and the results of the evaluation of learning in the first cycle, it can be concluded that the results of the observations in the first cycle experienced a significant increase compared to the results in the pre-cycle. This is evidenced by the achievement of an average score in every aspect. However, from every aspect of the assessment there are still deficiencies including:

* The mean score of student activity in the first cycle is set at 2, 27, including still included in the category enough. Student activity in this cycle I experienced a significant increase. There are still some students who do not understand the discussion method and simple root and rank material.
* The mean score of activities undertaken by teachers during p roses learning on the cycle I was at 2, 6 still included in both categories. This has increased quite drastically from cycle I, although there are still some shortcomings that the teacher has, including: The teacher does not reflect on learning, the teacher does not provide evaluations, the teacher does not give homework.
* The average value of the science learning outcomes of Class V Public Elementary School 8 North Tiworo students in the first cycle has increased compared to the scores obtained in the pre-cycle. Where the average score of students in cycle I is 6 6.41. From this percentage, there are 12 (50 %) students who have completed the lesson and 12 (50 %) students who have not completed the lesson.

**4.3 Description of the Implementation of Cycle II**

1. **Observations of Student Activities**

              The results of observations about changes in attitudes and behavior of class V SDN 8 Tiworo Utara during the implementation of cycle I I can be explained as follows:

**Table 7 Student Activities and Achievements in Cycle II**

|  |  |  |
| --- | --- | --- |
| ***No.*** | ***List of Student Activities*** | ***Score of Observation Results*** |
| ***Cycle II*** |
| 1 | Students understand concept maps about the human frame and five senses | 4 |
| 2 | Students are motivated to take part in learning activities | 4 |
| 3 | Students explain the functions of the human frame and five senses | 4 |
| 4 | Students Explain the Skeleton and Five Human Senses | 4 |
| 5 | Students discuss understanding the five senses | 4 |
| 6 | Conducting a discussion about the human frame and five senses |   |
| 7 | Conducting discussions about the human frame and five senses | 4 |
| 8 | Summing up the results of the discussion and looking for common ground | 4 |
| 9 | Ask and answer about things that are not yet known | 4 |
| 10 | Correcting misunderstanding of the material  | 4 |
| 11 | Students do the exercises | 4 |
|  | ***Average Score*** | ***4*** |
|  | ***Category*** | ***Very good*** |

 **Note: I = Less, 2 = Enough, 3 = Good, 4 = Very Good**

1. **Observation of Teacher Activities**

Based on the results of observations of teacher activities carried out in Class V SDN 8 North Tiworo in cycle II, it can be described as follows.

**Table 8** **Teacher Activities in Cycle II**

|  |  |  |
| --- | --- | --- |
| ***No.*** | ***Observed Teacher Activity*** | ***Score of Observation Results*** |
| ***Cycle II*** |
| 1 | Give apperception to students | 4 |
| 2 | Provide motivation to arouse students' passion for learning | 4 |
| 3 | Guiding students in Identifying the Skeleton and Five Human Senses | 4 |
| 4 | The teacher directs students in identifying the human frame and five senses | 4 |
| 5 | Provide directions regarding the student discussion process | 4 |
| 6 | Summing up how to identify the human frame and five senses | 4 |
| 7 | The teacher tests the students' abilities and skills in practice questions | 4 |
| 8 | The teacher provides opportunities for students to ask questions | 4 |
| 9 | Correcting misconceptions provides reinforcement and conclusions | 4 |
| 10 | The teacher reflects on the lesson | 4 |
| 11 | Provide evaluation | 4 |
| 12 | Give homework | 4 |
|  | ***Average Score*** | ***4*** |
|  | ***Category*** | ***Very good*** |

 **Note: I = Less, 2 = Enough, 3 = Good, 4 = Very Good**

1. **Evaluation**

         The results of the learning evaluation of Class V Public Elementary School 8 North Tiworo in cycle II are:

**List of Learning Results Cycle II**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Student's name** | **KKM** | **Learning outcomes** | **Completed** | **Not complete** |  |
| 1 | WA | 6 5 | 75 | 🗸 |   |  |
| 2 | RD | 6 5 | 70 | 🗸 |   |  |
| 3 | EF | 6 5 | 90 | 🗸 |   |  |
| 4 | HT | 6 5 | 80 | 🗸 |   |  |
| 5 | MR | 6 5 | 80 | 🗸 |   |  |
| 6 | VA | 6 5 | 65 | 🗸 |   |  |
| 7 | VT | 6 5 | 85 | 🗸 |   |  |
| 8 | MA | 6 5 | 85 | 🗸 |   |  |
| 9 | AH | 6 5 | 85 | 🗸 |   |  |
| 10 | AL | 6 5 | 95 | 🗸 |   |  |
| 11 | AD | 6 5 | 77 | 🗸 |   |  |
| 12 | AF | 6 5 | 75 | 🗸 |   |  |
| 13 | FI | 6 5 | 75 | 🗸 |   |  |
| 14 | MH | 6 5 | 65 | 🗸 |   |  |
| 15 | FD | 6 5 | 80 | 🗸 |   |  |
| 16 | HE | 6 5 | 80 | 🗸 |   |  |
| 17 | M N | 6 5 | 90 | 🗸 |   |  |
| 18 | MW | 6 5 | 70 | 🗸 |   |  |
| 19 | RG | 6 5 | 60 |   | 🗸 |  |
| 20 | DF | 6 5 | 78 | 🗸 |   |  |
| 21 | RE | 6 5 | 68 | 🗸 |   |  |
| 22 | TY | 6 5 | 75 | 🗸 |   |  |
| 23 | HU | 6 5 | 68 | 🗸 |   |  |
| 24 | JH | 6 5 | 69 | 🗸 |   |  |
| **amount** | **1840** |  |  |
| **Average** | **76.66** |  |  |
| **Percentage%** |  | **95.83%** | **4.16%** |

**Information:**

**Number of students completed: 23**

**The number of students who did not complete: 1**

**Classical: It's finished**

1. **Reflection**

 Based on the results of student and teacher observations and evaluation, the implementation of learning improvements in cycle II has reached the performance indicators and the minimum learning completeness criteria (KKM) determined by the school. This can be seen from:

* The average score of student activity in cycle II increased from cycle I, this can be seen from the series of scores obtained by students in each aspect of student activity assessment. The average score obtained is 4, including the Very Good category. Based on the results of observations made on students in cycle II, the students had fully understood the material of the human frame and five senses by using the group work method.
* The average score of activities carried out by the teacher during the learning process in cycle II is 4, including the very good category. In cycle II, the teacher really pays attention to all aspects of the assessment given both in terms of understanding the material, providing an understanding of learning methods, so that the learning process becomes more effective and efficient.
* The average value of the science learning outcomes of Class V Public Elementary School 8 North Tiworo students in the second cycle experienced a very significant increase. Where the acquisition of student evaluation scores in this cycle got an average score of 71.38. Of the 18 students who took the test, only two students had not completed the lesson. At this stage of the evaluation students have understood the material of the human frame and five senses by using the group work method.
	1. **Discussion**

Based on the results of the improvements made by using the discussion method on science learning, the subject of the framework and the five senses of man . Shows a very significant improvement from cycle I to cycle II. In science learning, the subject of the human frame and five senses for 2 cycles, the following data were obtained:

1. In pre-cycle activities based on the evaluation of student learning outcomes, there are no students who have completed learning activities; the average score obtained is 59.55. In this cycle the learning improvement is not in accordance with the achievement indicators so that the learning improvement must be continued in cycle I.
2. The average value of the science learning outcomes of Class V Public elementary school 8 North Tiworo students in the first cycle has increased compared to the scores obtained in the pre-cycle. Where the average score of students in the first cycle is 62.66. From this percentage, there are 6 (33%) students who have completed the lesson and 12 (77%) students who have not completed the lesson.
3. The average value of the science learning outcomes of Class V Public elementary school  8 North Tiworo students in the second cycle experienced a very significant increase. Where the acquisition of student evaluation scores in this cycle got an average score of 7 6.66. Of the 12 students who took the test, all students have completed learning. At this stage of the evaluation the students understood the material to identify the human frame and five senses by using the group work method.

From the learning results obtained from each of the cycles above in the subject of Science, Frame and Five Human Senses, the fifth grade students of Public elementary school  8 North Tiworo experienced a significant increase and had achieved maximum results. In this section of the discussion, it can be seen between cycles and the comparison of the results. If we look at the results of observations in each cycle, it shows a different trend and continues to increase. This is because in the first cycle there is still a lack of exploration given by the teacher to students, which is still lacking, the teacher is still not able to provide an understanding of the characteristics of living things , identifying the human frame and five senses . This was then corrected in the second cycle. This causes student learning outcomes to increase, students are more enthusiastic in cycle II and give very significant results. This research was conducted in two cycles, and the completeness of student learning outcomes was known by using the test method. The test was carried out 3 times, namely after the implementation of the pre cycle, cycle I, and cycle II. Where pre- cycle still has not reached the completeness criteria based on tests of pre cycles of 33, 3 % of the criteria that have been determined classical completeness is ≥85% who received grades ≥6 5 While I do as an activity cycle stabilization using material on basic competence the same, the percentage of completeness in cycle I reached 50, % and in the implementation of the test in cycle II only 1 student had not completed it, but classical completeness reached 9 5.83 %

Based on the above discussion, it can be seen that learning science subject to the characteristics and needs of living things using the group work learning model can improve student learning outcomes and improve student skills in working among peers so that student learning outcomes also increase and become better.

              By continuing to improve the results of the action in each cycle, finally we can say that there is increasing learning and mastery learning outcomes with the application mode l group learning subjects science students Class V semester of Public Elementary School 8 North Tiworo ear Lesson 2019/2020.

**V. CONCLUSIONS AND SUGGESTIONS**

* 1. **Conclusions**

Based on the results of learning improvement research, it can be concluded that:

a)  There is an increase in student learning outcomes with the application of the group learning method. In the pre- cycle gained an average = 62, 5 cycles I = 66.41 Cycle II = 76, 66 then there is a learning outcome with the application of the learning model of group work on the subjects of science subjects "Identified framework and the Five Senses Humans student Class V Public elementary school 8 North Tiworo - the school year 2019/2020.

b)  There is an increasing completeness bell teaching students Class V Public elementary school 8 North Tiworo on the subjects of science subjects identify framework and the Five Senses Man with the adoption of model learning teamwork. In the pre-cycle, the percentage of pre-cycle = 3 3.33 %, cycle I = 50%, cycle II = 9 5.83 %, so there is an increase in mastery of learning science subject Identifying the Frame and Five Human Senses of Class V Public elementary school  8 North Tiworo  Academic Year 2019/2020 with the application of the group work learning model .

* 1. **Suggestion**

The suggestions that can be given are:

 a) The material presented should use varied and appropriate methods.

 b) The use of media must be in accordance with the material of the human frame and five senses. .

 c) Create PAKEM lessons.

 d) The application of the group work learning model must always be implemented

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