

Audiovisual Media Assisted Guided Inquiry Model in Improving Learning Results

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Abstract - This study proved that audio-visual media assisted inquiry model can improve Learning Outcomes. The objective of this research was to improve the learning outcomes of science material on the Change of Surface Appearance of Earth and Celestial Objects through a guided inquiry model assisted by audio visual media in fourth grade students of SD Perguruan Rakyat 3, East Jakarta. This study used a Classroom Action Research design consisting of two cycles. Each cycle consists of 4 (four) stages. These are planning, implementing, observing and reflecting. The subject of this research was the fourth grade students of SD Perguruan Rakyat 3, East Jakarta. The results showed: (1) students's activity in first cycle got a score 18.6 which it means sufficient qualification but had not yet reached the success level of learning and the second cycle increased with a score of 25.9 which it means good qualifications and reached the level of learning success. (2) the classical learning completeness of students in the first cycle was 48%, then increased in the second cycle was up to 92%. The conclusion of this study is the application of guided inquiry models can improve science learning outcomes included students' learning activities and student's learning outcomes. Based on these conclusions, it can be judge that the audiovisual assisted guided inquiry model can facilitate students to learn independently and attract students' attention through an attractive display design so that it is very good if applied in science learning.

Keywords: *inquiry, audio-visual, learning outcomes.*

1. Preliminary

The implementation of the learning process is sometimes constrained by learning difficulties, this thing is caused by; (1) the teacher has not been optimal in guiding students to search and find the concept of subject material through questions in the experiment activities, so that students have not been motivated and facilitated to independently study the subject material with their own discoveries; (2) students are not guided enough by the teacher in conveying the results of discussions and students' ideas through good and correct oral language, so that students' self-confidence has not been seen (3) the teacher is not guiding students in providing problems that students must solve related to learning material, so students have not used to thinking critically and analytically to find their own answers of questions; (4) the teacher has not been maximized as a connector in linking the material with the problems encountered in the field, so that students still memorize learning material; (5) teachers are still less stimulating students to ask questions, so that the ability of students in question and answer activities to think critically and analytically has not been seen; (6) the teacher does not provide an environment that allows students to capture and

develop the insight itself, so that students still memorize the learning material given by the teacher verbally.

One of the innovative learning models that can solve the problem of learning difficulties is by applying the guided inquiry model assisted by audio visual media. According to Herdian (in Putra, 2013:96) guided inquiry model is a model of inquiry that applied in learning, where the teacher guides students to do activities by giving initial questions and directing to a discussion. In the guided inquiry model, the teacher gives a lot of guidance in the initial stages, but in the later stages the guidance is reduced. In the application of guided inquiry models, students can find answers independently of the various problems expressed and provide understanding to students in knowing, understanding various materials using a scientific approach, it shows to students that information can come from anywhere, any time, and does not depend on the direction of the teacher. Therefore, the learning conditions created are directed to encourage students to find out from various sources of observation, not to be told.

The application of the inquiry model in learning gives students the freedom to explore all their abilities without being burdened. Inquiry learning models in principle not only teach students to understand and explore learning material, but also train students' thinking skills well. This model is also very concerned about the learning style of each student when able to serve students who have abilities above average (Haryono, 2013:61)

The guided inquiry model will be more effective in its implementation if applied with learning media. Indriana (2011:15) stated that learning media is one of the communication tools in learning. The application of learning media will make learning more attractive to students, so students' learning motivation will grow. In addition learning media can activate students, such as observing, doing and demonstrating. The learning media that used in this study is audio visual media. Such as Djamarah and Zain (2013: 124) claimed that audio visual is learning media that have sound and picture elements. Audio visual media in guided inquiry learning attracts students' attention since there are various images interspersed with sound so that it is easy to stimulate the student's brain in remembering the messages contained in the audio visual media. Audio visual media can also overcome the limitations of experience that students have. Thus, allowing students to learn well.

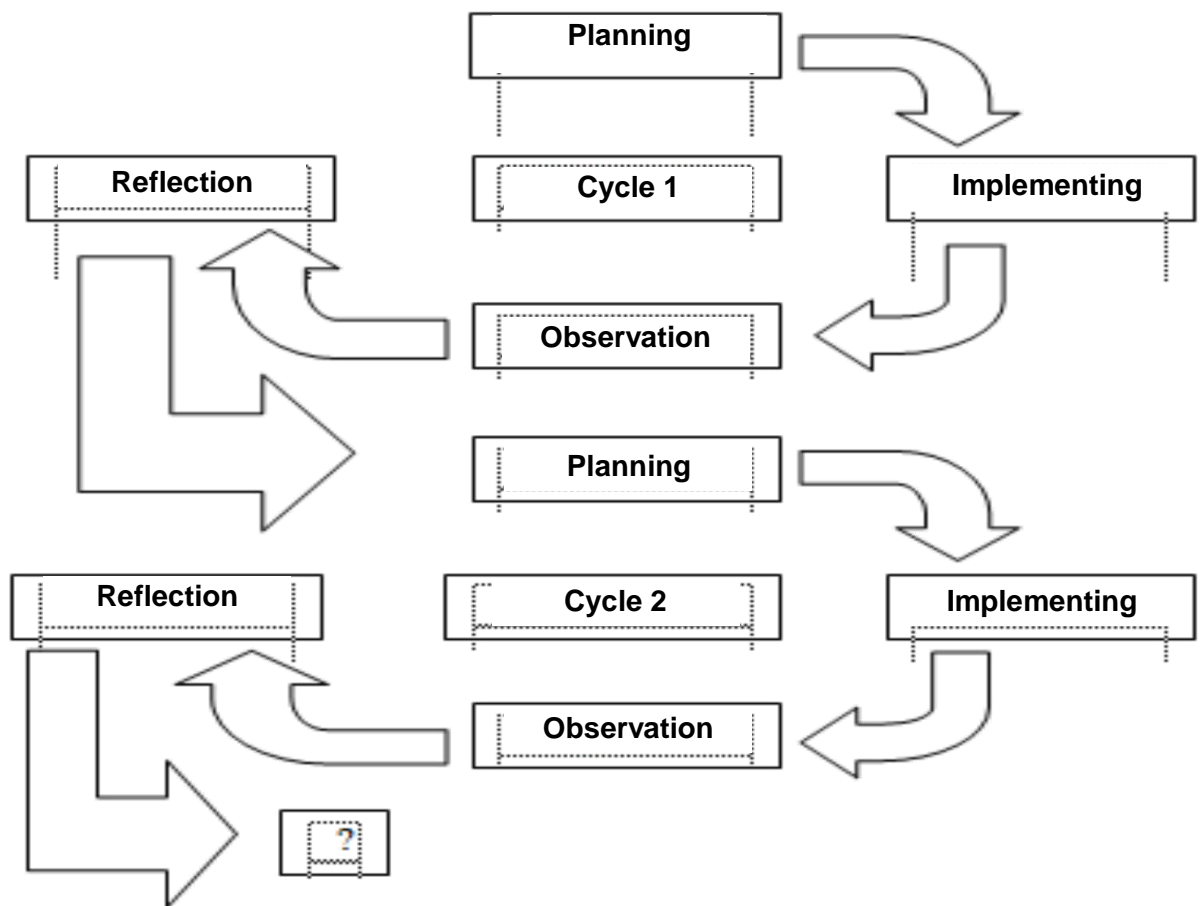
Learning by applying the guided inquiry model assisted by audio visual media make students become more active which results in student learning outcomes will also increase. In addition, with the application of alternative problem solving, students can find their own science concepts they are learning and provide space for students to learn based on their style. The development of cognitive, affective, and psychomotor aspects will be emphasized in a balance way. The needs of students who have abilities in the above average will also be served, so learning with guided inquiry models assisted by audio visual media is considered more meaningful. Based on the background of the problem above, the researcher will study the problem through classroom action research with the title "*Audiovisual Media Assisted Guided Inquiry Model in Improving Learning Results*". It needs to be studied so that learning can work well.

2. Problem

The writers formulate the problem into “How the application of guided inquiry learning models assisted by audio visual media improve Learning Outcomes?”

3. Method

This study used *Classrom Action Research* method, implementing to improve student learning outcomes with a guided inquiry approach assisted by audio visual media.



The design is used from Kemmis & Mc Taggart's model action research.

4. Discussion

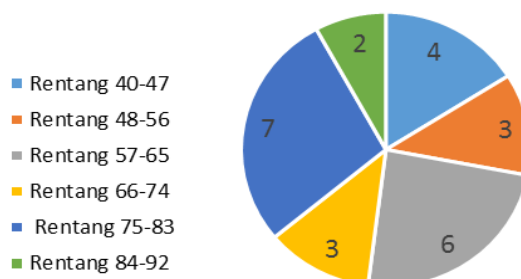
This classroom action research was conducted in two cycles in grade IV SD Perguruan Rakyat 3 East Jakarta. The first cycle was conducted on March 31th, 2017 and April 10th, 2017 and the second cycle on April 15th, 2017 and April 20th, 2017.

The action was conducted in two cycles and each cycle consists of 2 meetings. The duration for each meeting is 2 x 35 minutes. The implementation of first and second cycles was started from planning, implementing, observing and reflecting actions.

Before the first and second cycles conducted, the writers conducted a pre cycle, which was done on March 28th, 2017 which was attended by 25 students. This pre-action stage is carried out to obtain preliminary data of students learning

outcomes in science learning before the action is taken. The data obtained at this pre-action stage was got through observation and pre-test.

Sebaran Nilai Tes Prasiklus



4.1. Results of Observing Student Activities in First Cycle Learning

Students activities was observed by using the observation sheet of student activities. It is consisting of 7 indicators with 25 students as the subject of observation. Indicators of student activities through the Inquiry model include are as follow: 1) Preparing to receive lessons (listening activities), 2) Paying attention to teacher's explanations (listening activities), 3) Student activity in asking (oral activities), 4) Student activity in answering (oral activities), 5) Orderliness of students in participating in learning with inquiry learning models (oral activities, listening activities, motor activities, mental activities), 6) Students activities in groups (oral activities), 7) Making conclusions (writing activities, mental activities).

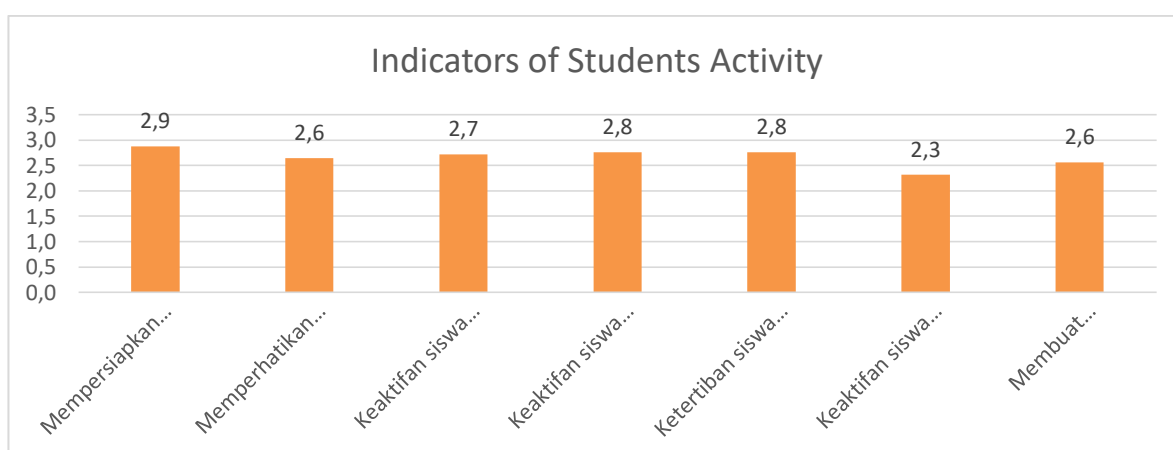
From observing student activities in first cycle, collected data is presented in the following tables:

Student Learning Activity Data in First Cycle

Nu	Indicators of students' activity	Scores obtained				Total scores	Average scores
		1 (In)	2 (Q)	3 (A)	4 (VA)		
1	Preparing to receive lessons (listening activities)	2	7	8	8	72	2,9
2	Paying attention to teacher's explanations (listening activities)	3	9	7	6	66	2,6
3	Student activity in asking (oral activities)	3	7	9	6	68	2,7
4	Student activity in answering (oral activities)	4	5	9	7	69	2,8
5	Orderliness of students in participating in learning with inquiry learning models (oral activities, listening activities, motor activities, mental activities)	5	6	4	10	69	2,8
6	Student activities in groups (oral activities)	8	6	6	5	58	2,3
7	Making conclusions (writing activities, mental activities)	6	5	8	6	64	2,6

Nu	Indicators of students' activity	Scores obtained				Total scores	Average scores
		1 (In)	2 (Q)	3 (A)	4 (VA)		
	Total					463	18,6
	Qualification						Quite
	Learning success rate						Not successful

Based on the table above, it can be measured the number of students in first cycle was 466 from 25 students with an average score of 18.6 with sufficient qualifications, but still achieved the level of learning success. The following are indicators for the indicators below:

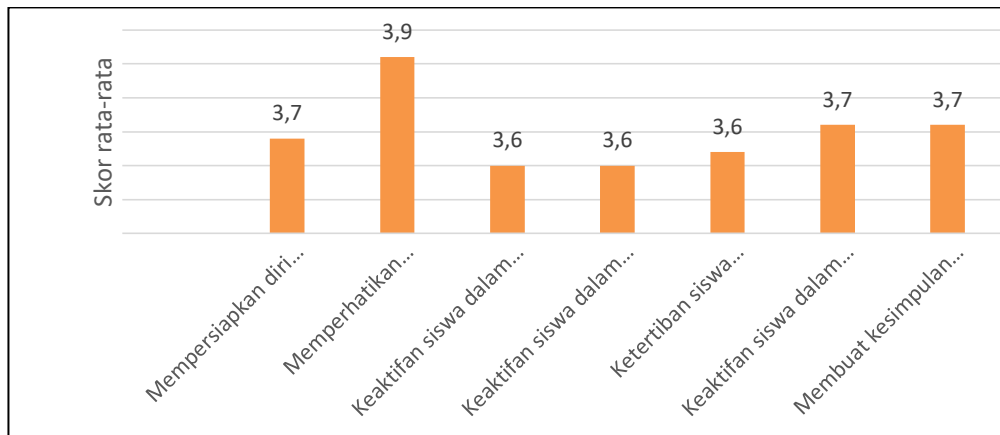


4.2. Observation Results of Student Activities

Students activities was observed by using the observation sheet of student activities. It is consisting of 7 indicators with 25 students as the subject of observation. Indicators of student activities through the Inquiry model include: 1) Preparing to receive lessons (listening activities), 2) Paying attention to teacher's explanations (listening activities), 3) Student activity in asking (oral activities), 4) Student activity in answering (oral activities) , 5) Orderliness of students in participating in learning with inquiry learning models (oral activities, listening activities, motor activities, mental activities), 6) Student activities in groups (oral activities), 7) Making conclusions (writing activities, mental activities).

From observing student activities in second cycle, collected data is presented as follows:

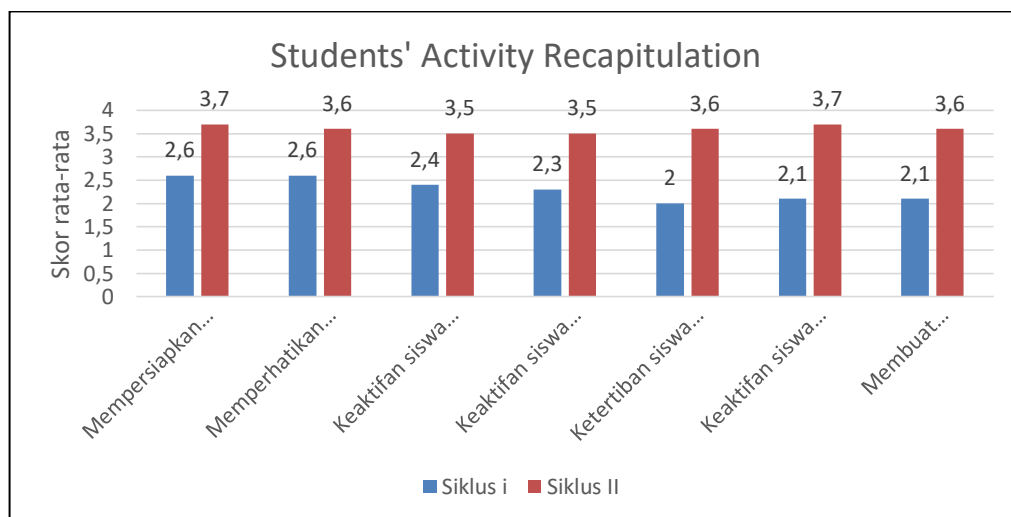
The number of student activity scores in second cycle is 647 from 25 students with an average score of 25.9 with good qualifications. The following diagram illustrates the achievement of scores for each indicator:



There is an enhancement of student activity in science learning through the application of audiovisual based inquiry models from first and second cycle

Nu	Indicators of students' activity	Average scores	
		1st Cycle	2nd Cycle
1	Preparing to receive lessons (listening activities)	2,6	3,7
2	Paying attention to teacher's explanations (listening activities)	2,6	3,6
3	Student activity in asking (oral activities)	2,4	3,5
4	Student activity in answering (oral activities)	2,3	3,5
5	Orderliness of students in participating in learning with inquiry learning models (oral activities, listening activities, motor activities, mental activities)	2,0	3,6
6	Student activities in groups (oral activities)	2,1	3,7
7	Making conclusions (writing activities, mental activities)	2,1	3,6
	Total	18,6	25,9
	Qualification	Quite	Good
	Learning success rate	Not Successfull	Successfull

The following is diagram rom students' activity data above:



Based on the table above, the activity of students in science learning with audiovisual-based inquiry models improved students' achievement. In the first cycle, the score is 18.6 which it is categorized as quite and second cycle is 25.9 which it is categorized as good. Seven indicators of student activity observation from first cycle until second cycle have improved.

There is an improve in the indicators of students preparing to receive lesson (listening activities), it is shown in the improve of the average score of each cycle. First cycle obtained a score of 2.6 and second cycle with a score of 3.7. Descriptors that always appear are students in the first line of the class, students enter the room, students occupy their seats, and students get out stationery and books.

Learning readiness is the conditions that precede learning itself. Without this readiness or willingness, the learning process will not occur. The statement explains that behavior or things that students do before learning will strongly support a more optimal learning process.

5. Conclusion

The implementation of the inquiry model improved student learning activities and the learning outcomes of fourth grade students at SD Perguruan Rakyat 3 East Jakarta on science learning. By using audiovisual media assisted inquiry models, teachers can give students the opportunity to be actively involved in the learning process. Students in groups actively discuss to construct the knowledge they have. By utilizing multimedia learning, the activity of formulating hypotheses, group discussions, testing hypotheses and drawing conclusions becomes more interesting and enjoyable. The existence of a group division that has heterogeneous members' abilities allows each student to have different creativity in solving problems, so that each student can exchange opinions and actively tries to find out and express his opinions.

Based on the results of observations on student activities obtained the average score in first cycle was 18.6 with sufficient criteria, improving in second cycle with an average score of 25.9 with good criteria.

Student learning outcomes in first cycle obtained an average value of 69.48 with a percentage of classical completeness 48%. In second cycle, an average value of 91.8 was obtained with a percentage of classical completeness of 92%.

Based on the results of the data obtained during the implementation of first and second cycle, it can be concluded that the application of inquiry models can improve teacher skills, student activities, and learning outcomes in science learning.

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