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The Implementation of Inquiry Learning With Setting Cooperative Model Type Group Investigation to Enhance Activity and Learning Outcomes for the Fifth Grade Students

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Abstract: *This study aims to improve the activity and thematic learning outcomes for the fifth grade students at SDN Sumbesari 1 Malang. This research is a classroom action research (CAR) consisting of two cycles. Each cycle consists of four phases: planning, implementation, observation, and reflection. The subject of this research is the fifth grade studentsin academic year of 2015/2016 consisting of 20 students. The research findings show there is increase in students' activity and learning outcomes. The researchers put forward recommendation to the teachers that in carrying out the inquiry learning with setting cooperative model type group investigation, it is necessary to provide attractive student activity sheet, equipment and materials early.*

Keywords:*Inquiry Setting, Cooperative Learning Model Investigation, Learning Activities, Learning Outcomes.*

I. Introduction

Based on preliminary interviews and observation with teachers in class V SDN Sumbesari 1 Malang on 15 November 2015, the researchers got the following information. Students are still less confident, less active in their learning, class discussion did not perform well. The media is not used to its full potential by reason of the media provided by the school was damaged, teachers still ask students to memorize, materials.

To create an active learning with students in the classroom, the teacher must improve the effectiveness of the learning process by selecting and applying learning based on student characteristics. Develop learning activities to choose learning a second phase should be done by the teacher after the planning and prior learning assessment (Kauchak, et al, 2009). The success of the learning process cannot be separated from the ability of teachers choose learning oriented to build effective intensity of student involvement in the learning process. Learning is a conceptual framework with a systematic procedure of organizing learning experiences to achieve specific learning objectives (Aunurrahman, 2010).Learning will guide teachers in achieving the learning objectives.The learningmodel selectedby teachers must be based on learning approach (Trianto, 2010). To overcome the problems, it is necessary to use the scientific approach in thematic learning. In order to train high-level thinking skills, student learning outcomes should correspond to the learning objectives. The learning should be in line with the principles of scientific approach.

Learning inquiry according to Joyce and Weil is learning that can help the development of, among other things: scientific literacy, understanding the processes of scientific understanding of the concepts, critical thinking and a positive attitude, curious, and stimulates students thinking activities (in Susanto, 2013). In the process of learning through learning activities inquiry will eventually produce scientific attitudes, such as respect for other people's ideas, open with new ideas, critical thinking, honest and creative (Marbach & Classen, 2011). Through theinquiry learning, children will become independent learners with their curiosity and explore something with the guidance of teachers so inquiry can be used to implement active learning (Soetjipto, 2001).

The advantages of Inquiry are expressed by the following scholars. Teachers who use inquiry learning can produce students who have a high level of knowledge.(Liu, et al, 2010).Next, Inquirycan facilitate students in improving thinking ability (Rushton, et al, 2011). Inquiry-based learning, can improve scientific process skills and students' attitudes. Inquiry learning can encourage students to think actively and draw conclusions (Daphne, et al, 2009). The procedure of inquiry learning are as follows: (1) describe the topics, objectives and learning outcomes to be achieved; (2) formulate the problem undertaken by students; (3) formulate hypotheses; (4) to collect data; (5) testing the hypothesis; and (6) formulate conclusions.

The Curriculum 2013 implements scientific approach, in which it requires students not only observe, formulate questions and hypotheses, try and collect data with a variety of techniques, associate or process data and draw conclusions, but also up on stage to communicate the results. Students not only have knowledge and good skills, but also have a good attitude. Students will be easier to find and understand concepts that are difficult if they are able to discuss these issues with their friend (Susanto, 2013). So inquiry need to collaborate

with other learning activities to stimulate student research and communicate the results of students' social life, because the inquiry is only emphasizing the interaction between teachers and students and students with the material. While inquiry is weak in students' interaction with the others, so that inquirylearning needs the cooperative learning model (Johnson, 1976).

To stimulate students' higher level thinking activities, enthusiasm and social life, Sharan and Sharan (1976) stated that the group investigation is one type of cooperative learning models based on student research, which can improve social skills and students' attitudes. The social system of cooperative learning group investigation upholds the values of a democratic regulated by an agreement.

The philosophical Cooperative learning type group investigation move from the paradigm constructivist, where there are situations in which students interact and communicate with each other by sharing information and doing work collaboratively to investigate a problem, plan, present, and evaluate their work (Tsoi. et al, 2004). Group investigation will also be able to grow the warmth of personal relationships, trust, respect for the dignity of others (Aunurrahman, 2010). Group investigation makes learning interesting, fun, and positive social relationships, good skills and a deep understanding of the topics discussed (Tan. et al, 2005).Several studies have been conducted to test the effectiveness of cooperative learning by setting inquiry. Inquiry learning in setting Group Investigation can improve the ability to reason and solve mathematical problems students (Setyaningsih. at al, 2015). Based on above explanation, the researchers want to conduct research which entitled "The Implementation of InquiryLearning with Setting Cooperative Model Type Group Investigation to Enhance Activity and Learning Outcomes for the Fifth Grade Student at SDN Sumbersari 1 Malang".

II. Method

This study uses a classroom action research (CAR). CAR is an action taken by teachers to improve the quality of process and student learning outcomes (Mulyasa, 2013). CAR is how teachers organize their teaching practices, and learn from their own experience (Wiriaatmadja, 2014).

The action research procedures including planning, implementation of observation and reflection (Kemmis & Taggart, 2014) with the following explanation.

a. Planning, in this activity are: (1) set up a learning tool; (2) develop observation sheets implementation of learning; (3) develop a questionnaire activity of teacher and students; (4) develop and learningtest; (5) validate questionnaires; (6) anddetermine the success of the action.
b. Implementation of the action. The implementation of the activities listed in the lesson plan had been developed by researcher. The initial activity will be preceded by delivering goals and apperceptionof core activities such as; (1) planning to work together, students are formed into four groups each consisting of 5 students; (2) givingworksheet in each group, (3) formulating problem by making the questions they want to know, which correspond to the learning objectives; (4) formulating hypotheses, students read material that has provided teachers and formulate allegations interim results challenge what they want to know; (5) collecting data by reading a book or article, visit a place to conduct interviews and experiments. Students select data, conduct interviews and trial in accordance with the formulation of the problem and the hypotheses that have been made; (6) matching the data that have been obtained with the hypothesis, appropriate or not; (7) summing up the results of the information; (8) presenting the results that have been found by each of its members; (9) evaluating the results of each group, and topping off by a closing activity that is working on a formative test, listen to the follow-up of teachers.
c. Observation. Observation will be carried out during the course of the learning process, observers consisted of two people to observe and fill out the observation sheet.
d. Reflection. At this stage the researcher and observer conduct discussions about what have already happen during the first cycle. The result of discussion will be used as consideration for executing the next cycle.

The subjects were 20 students in grade five of SDN Sumbersari 1 Malang in academicyear 2015/2016. Data analysis techniques used in this research is qualitative data analysis techniques developed Miles Huberman consisting of three phases (Sugiyono, 2010), which includes the step of data reduction, presentation and inference. Data were collected by using observation and tests.

III. Findings

This CARimplements inquiry learning by cooperative setting model investigation conducted in two cycles starting from the date of March 1, 2016 until March 30, 2016. Below is the observation result.

Table 1. The Observation Result using checklist from the Students' Learning Activityin Cycle 1and II

Aspects	Percentage	
	Cycle I	Cycle II
Giving questions and opinions	64,4%	75,8%
Commenting onquestions andopinions	65,2%	75,4%
Conducting discussion and solving the problems	66,8%	75%
Collecting the dataandmaking try out	68,3%	80%
Participating in presentation or reporting the task	68,3%	83,3%

According to the table and the graph above, it can be concluded that there has been a progressive increase on students' learning activities on the indicator that provides questions and opinions from 64.4% to 75, 8%, in response to questions and opinions indicator increased from 65.2% to 75.4%, the indicator of carrying out discussions and problem solving has increased from 66.8% to 75%, collect data and conduct experiments to increase from 68.3% to 80%, to participation in a presentation or report job has increased from 68% to 80%. Based on students' learning activity graph in cycleI and II, that has happened enhancement activity of students in learning. Next, Students' Learning Outcome in term of affective domain can be seen from the table 2 below.

Table 2. Students' Learning Outcome from Affective DomainfromCycle Iand II

Aspect	Cycle I	Cycle II
Spiritual	100%	100%
Honest	44,6%	60,8%
Discipline	46,3%	73,3%
Responsible	47%	62,5%
Confident	51%	70,8%
Polite	43,6%	72,9%
Cooperative	49%	76,2%

The Comparison of Students learning outcome in term of affective domain from Cycle I to cycle II can be seen the following figure.

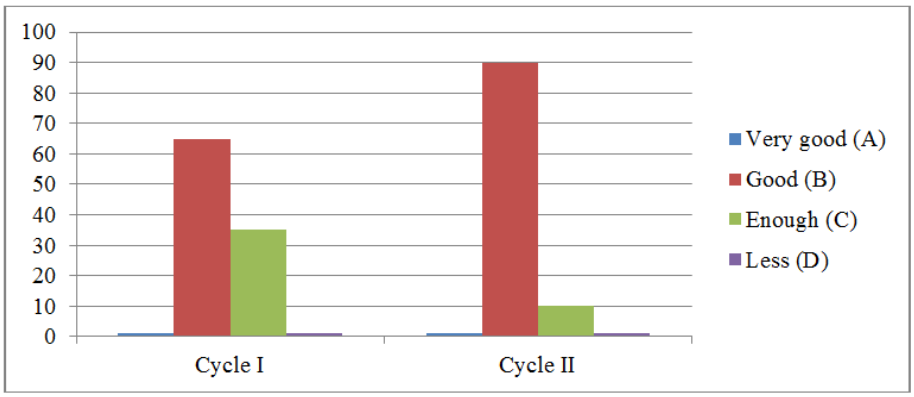

Figure 1.Graph on the Student Learning for Affective in Cycle I and II

Moreover, students' Learning Outcome in term of knowledge and skill can be seen from Table 3 and 4.

Table 3.Students' Learning Outcome in term of Knowledge Domain in Cycle I andII

Learning Outcome	Cycle I	Cycle II
Highest Score	95	100
Lowest Score	55	70
Mean	75,25	86,75
Pass	65%	80%
Fail	35%	20%

Table 4. Students' Learning Outcome in term of Skill Domain in Cycle I and II

Aspect	**Cycle I**	**Cycle II**
Preparation	60,8%	72,8%
Data Collection	68,8%	70%
Data Process	74,4%	88,8%
Written report	72,7%	89,9%

IV. Discussion

The implementation of inquiry learning with setting cooperative learningmodel type group investigation aims to improve the activity and student learning outcomes. Increasing student activity includes several aspects, among others: (1) provide questions and opinions; (2) respond to questions and opinions; (3) conduct a discussion or solve the problems; (4) collect data and conduct experiments; (5) participation in the presentation or written report. Improving student learning outcomes include domain of theof attitudes, knowledge and skills. In the first cycle student learning activities showed 35% of students are in a fairly active and active criterion can be summarized in providing questions and opinions, respond to questions and opinions, conduct discussions, participation in presentations and reports tasks only to the criteria sometimes appear. This is because students are not familiar with the activities of student-centered learning.

In the second cycle, the students emphasized to cooperate with friends, inquiry conducted by a group of students to define problems, collect data, check the findings and to conclude goal. Students are given the motivation to be more active in their learning and the teacher attractsthe students to carry out learning activities outside the classroom.

Based on observations on the second cycle75% of students expressed an active learning, meaning that the students have been always asking questions and opinions, respond to questions and opinions, conduct discussions and solve the problems, collect data and conduct experiments, students participate fully in the presentation or written report, the student is declared active learning is the student who asked questions and opinions, respond to questions and opinions, discover the concepts, discuss with your friends to solve problems, and present the individual tasks and group.

In the second cycle,there is an increaseof student attitudes in which 90% of students are in good criteria, meaning that the overall 2 to 3 aspect has been reached. Learning outcomes of students'knowledge has increased to 80%. Next, the learning outcomes in terms of domain skills has increased to 80%. This finding support the results of research by Marsanto (2015) which states that the implementation of the strategy of inquiry in a cooperative setting can increase the activity and student learning outcomes. Implementation of inquiry-based learning that is in the integration with cooperative strategies, can improve students' critical thinking skills, among others, formulate and test hypothesis, analyze and interpret data, and communicate the results of scientific activities (Jufri & Sulistyo, 2010). Teaching involves students in inquiry-oriented where they interact with the teacher and their peers in problem solving, planning, decision-making, and group discussions, present the result can increase the activity and learning outcomes significantly (Chang & Mao, 2010).

Inquiry learning with setting cooperative model type group investigation will be able to increase activity of students during teaching and learning process. The process of inquiry learning with setting cooperative model type group investigation are as follow. Involvement students with the problem, solve the problem, and make decision togetherwith other students can make them more active.They can learn independently without reliance by teachers, and students learn to themselves (Catherine in Smith, 2000). The same thing also expressed by Asiala (2011) who say that the effect of the application of cooperative-based inquiry learning is very effective to enhance students' understanding. Through cooperative-based inquiry learning, students will have the ability to think critically and be able to find concepts, apply, synthesize and evaluate(Fuller, 2001).

V. Conclusion and Recommendation

The conclusions of this study is that the implementation of inquiry learning withsetting cooperative model type group investigation can increase the activity and student learning outcomes of the fifth grade students of SDN Sumbersari 1 Malang.

Based on the research findings, discussion and conclusion, it can be put forward some recommendations. (1) For teacher, in carrying out the inquiry learning with setting cooperative model type group investigation, itis necessary to provide student activity sheet that is more attractive for students, equipment and materials early, looking for interesting places for students' inquiry and investigation. (2) Teacher give motivation and reward to the students. (3) As inquiry learning with setting cooperative model type group investigation requires long time learning, then teacher should adjust the schedule of learning with places to be visited. In doing so, teachers need to prepare everything carefully before implementing inquiry learning with setting cooperativemodeltype group investigation.

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