INQUIRY LEARNING STRATEGY ON SKILLS OF SCIENCE PROCESS AND CLASS IV LEARNING MOTIVATION IN SD 24 SINGGALANG

*Vivi Lusidawaty[1], Yanti Fitria[2],Yalvema Miaz[3], and Risda Amini[4]

[1]Graduate Program of Primary Education
Faculty of Education Science, Universitas Negeri Padang
[2]PGSD Lecturer, FIP, Universitas Negeri Padang
[3]PGSD Lecturer, FIP, Universitas Negeri Padang
[4]PGSD Lecturer, FIP, Universitas Negeri Padang
Email: vivi2019@gmail.com

ABSTRACT

This study aims to describe the implementation of inquiry learning strategies to improve learning motivation and science process skills of students in grade SD 24 Singgalang. This study is a class action research which is a study developed jointly for researchers and decisions maker about variables that are manipulated and can be used to make improvements. Repairs are carried out with two cycles, namely cycle 1 and cycle 2. Data from research results can be grouped into two, namely quantitative and qualitative data. Quantitative data, namely numerical data, are qualitative data in the form of descriptive. As the subjects in this study were teachers and fourth grade students of SD 24 Singgalang District X Koto Tanah Datar District, amounting to 30 people consisting of 13 male students and 17 female students. The results showed that the average value of students in cycle 1 was 72 experiencing an increase in cycle 2, namely 87. The percentage of students' mastery learning in the first cycle was 62% of students obtaining complete grades, while in the second cycle 93% of students obtained completing grades. Thus, there was an increase of as much as 31%. Student learning motivation with the implementation of inquiry learning strategies in class IV of SD 24 Singgalang was stated with more than 50% of students who agreed, 57% stated Strongly Agree and 33% agreed. Meanwhile, 7% said that they were Doubtful and 3% stated that they did not agree.

INTRODUCTION

The Inquiry Strategy of the Science Process and the Motivation of teachers in learning who emphasize the process are only as guides and directors, while the ones who move the process are students themselves. Mastery of the process requires scientific skills included in science process skills. Science Process Skills (KPS) is the development of physical and mental skills that derive from the basic abilities that a person has (Semiawan, 1992; Hermon and Dalim, 2006; Hermon, 2015). According to Aktamis and Ergin (2008) science process skills become an important tool for learning and understanding science, also important in gaining knowledge about science. These skills cannot be negotiated anymore, because science process skills in learning are basic skills that students must possess in developing their potential in the learning process.

Based on preliminary observations, teachers in science learning often use the expository approach which is sometimes varied with demonstration activities. The expository approach that is varied with demons is a learning approach that emphasizes the process of delivering material verbally from a teacher to students and demonstrates and shows students about a particular process with the aim that students can master the material being studied (Hermon and Dalim, 2005). Demonstration activities are carried out by the teacher, while students are only tasked with observing without being given the opportunity to try to demonstrate. The reason for this approach is because the teacher already feels mastered the approach. In addition, the reason for this approach is used because the material taught is too much, while face-to-face time with students is very limited. The use of an expository approach that is varied with demonstrations that continue to have an adverse effect on students, they find it difficult to understand the material taught by the teacher, the learning process is unpleasant, and feels boring. This is because in the learning process students are not directly involved.

Based on observations that researchers do learning problems (1) The process of science learning that takes place in schools is centered on the teacher as a source of information. (2) The independent learning approach used has not been well applied. (3) Students are not actively involved in solving problems caused in learning (4) Student learning motivation is still less visible during the learning process and not

creative (5) In the learning process of science students have not interacted with the environment as a source of learning.

Science process skills are ideal to be developed in science learning. This is because science process skills are reflected in the nature of science, namely science as a process and product. Indeed this science process skill is the basic ability to become a scientist who will develop science and technology and this science process skills are also naturally owned by everyone. If these science process skills are honed, then more and more of the nation's successors will become great scientists. Science process skills involve cognitive, manual and social skills.

METHOD

This research is a class action research, which is a study developed jointly for researchers and decision makers about variables that are manipulated and can be used to make improvements. This research will be conducted at SD 24 Singgalang X Koto Tanah Datar District. This research was conducted in class IV. The subjects in this study were teachers and fourth grade students of SD 24 Singgalang X Koto Tanah Datar District, amounting to 30 people consisting of 13 male students and 17 female students. This research will be conducted in the first semester of the 2017/2018 academic year. Calculated starting from October from the time of planning to writing research reports. The research approach that will be used is a qualitative and quantitative approach. The flow of this study was designed for 2 cycles. One cycle consisted of two meetings. PTK carried out using a cycle model developed by Kemmis and Mc. Taggart (Rochiati, 2009) the stages of action research conducted consisted of four stages, namely planning (plan), action (act), observation (Observe), reflection (reflect).

RESULTS AND DISCUSSION

Assessment of the science process in inquiry learning from the first cycle has increased in cycle II. Until the range of student acquisition values is at 60 to 95. The acquisition value is as many as 1 person gets a value of 60, 2 people get a score of 65, 3 people get a score of 70, 7 people who score 75, 8 people who get 80 , 7 people who

scored 85, 1 person who got a score of 90, and 2 people who got a score of 95. The average student acquisition for the assessment of the science process with this inquiry approach was 79. Motivation of student learning outcomes obtained from questionnaires distributed to students. Questionnaire contains 35 statements that will be answered by students with the statement Strongly Disagree (STS), Disagree (TS), Doubt (Rr), Agree (S), and Strongly Agree (SS). Questionnaires were given to all grade IVa students of Singgalang Ganting 24 Public Elementary School totaling 30 people.

Based on the results of the student questionnaire answers were obtained consisting of 17 people who stated Strongly Agree (SS), 10 people who stated Agree (S), 2 people who expressed doubt (Rr), and 1 person who stated Disagree (ST) . After interviews with students who stated Disagree, it turned out that he did not like learning that took place in practice and in groups. He only wants to carry out learning individually.

Based on the results of the study of the implementation of learning using the Skill Approach The science process in science learning in material changes in solid, liquid and gas objects in the fourth grade of elementary school revealed that the teacher made a learning design in the form of a Learning Implementation Plan. Susanto (2007) said that "the Learning Implementation Plan (RPP) is the translation of the syllabus into the unit of learning activities to be carried out in the classroom.

The plan for implementing learning is an operational plan of learning that contains several related indicators to be carried out in one or several meetings learning planning designed by researchers is in line with Davis's advice (in Oemar 2001) which states that "in designing learning plans take place in stages: 1) determine the status of the teaching system, 2) formulate teaching goals, 3) plan and implement evaluation , 4) describe and review the task, and 5) implement the principles of learning.

In this research, the planning designed by the researcher departs from the standard of competence and basic competencies that have been determined by the education unit level curriculum which is then translated into several indicators and determined learning materials, learning activities consisting of methods and points of activity, learning tools and resources, evaluation consisting of process assessment and

outcome assessment, evaluation tools, and test questions. All of these components are contained in all plans written by researchers, namely in planning cycle I.

Based on the RPP formulated in the first cycle of learning activities carried out aims to create conditions that allow learning to occur in students. In a learning activity students are said to have learned, if there is a process of changing behavior in students as a result of an experience. The implementation of learning by using the Process Science Skill Approach can provide opportunities for students to learn, discover, develop facts, concepts and principles of science for students themselves.

Based on the notes on the observation sheet and discussion of researchers with observers the cause of the still low student learning outcomes in the first cycle is the lack of details in explaining or reviewing learning material from the teacher and the limited tools and materials for students in conducting experiments to understand the concept of learning. Based on the notes on the observation sheet and discussion of researchers with observers, the analysis of research in the first cycle found that the average grade score only reached 7.2. Based on the results of observations of the first cycle obtained, it is planned to carry out the second cycle. The teacher must be able to pay attention to the differences that exist in each student because each individual has different characteristics and potential. According to E. Mulyasa (2006) the process skills approach departs from a view that each student has different potential and in a normal situation they can develop their potential optimally. Learning is a process that makes a person experience behavioral change as a result of his experience.

Learning Implementation Planning (RPP) in the second cycle is almost the same as the first cycle, but in the provision of tools and materials and the development of material has been more maximized. This improvement aims to improve learning in cycle II. As revealed by Hamzah (2006) that the improvement of the quality of learning must begin with an improvement in the design of learning. Learning planning can be used as a starting point for efforts to improve the quality of learning. Learning is influenced by various factors such as motivation, maturity, student relations with the teacher, verbal ability, level of freedom, security, and teacher skills in communication. Therefore the teacher must make improvements in the implementation of learning in addition to repairs to the lesson plan. After improvements are made to the lesson plan

known learning Changes in the form of solid, liquid and gas objects using the Skill Assessment The science process in cycle II has been going well, this can be proven by the value obtained by students is good, with an average of 87. -this writer can conclude that learning in this second cycle has been completed, as determined by KTSP (in Susanto 2007) ideal learning completeness for each indicator is 0-100% with the ideal criteria minimum 75%.

CONCLUSION

The implementation of inquiry learning strategies can improve learning motivation and science process skills of students in grade IV of SD 24 Singgalang. This is evidenced by the value obtained by students in the first cycle with an average of 72 increasing to 87 in the second cycle. Motivation of student learning with the implementation of inquiry learning strategies in class IV of SD 24 Singgalang expressed by more than 50% of students who agreed, namely 57% stated Strongly Agree and 33% stated Agree. Meanwhile, 7% said that they were Doubtful and 3% stated that they did not agree. Improved science process skills of grade IV students at SD 24 Singgalang seen in the completeness of learning outcomes and student motivation. In the first cycle, as many as 62% of students obtained complete grades, while in the second cycle 93% of students obtained completing grades. Thus, it has increased by 31%.

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