IMPROVING LEARNING ACHIEVEMENT AND ATTITUDE OF INDEPENDENCE STUDENTS USING THE MEDIA-ASSISTED DISCOVERY LEARNING MODEL FRAMEWORK Geometry MATERIAL GRADE V ELEMENTARY SCHOOL

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Abstract: This study aims to determine the increase in learning achievement and learning independence using the discovery learning model with the help of spatial framework media on the material for class V SD Negeri 2 Mengngkang. The subjects of this study were 28 students of class V SD Negeri 2 Mengngkang. This type of research is classroom action research conducted in two cycles. The first and second cycles consisted of two meetings. The instruments in this study were observation sheets, questionnaires, and written tests. Data collection was carried out using observation, questionnaires, and written tests. The data obtained were then analyzed in a quantitative descriptive manner in each cycle. The results showed that there was an increase in learning achievement and learning independence in each cycle, this was shown by the evaluation results of students in the first cycle reaching 77% with good criteria and in the second cycle it increased to 85% while the increase in learning independence was based on a questionnaire, namely in the first cycle 72% which increased to 84%.

Keywords: Learning Achievement, Independent learning, Discovery Learning

INTRODUCTION

The learning process is inseparable from the curriculum. Curriculum is a system that guides the implementation of education in a country. Basri (2019: 138) "the curriculum includes a set of learning activities, philosophy of subject objectives and activities in the learning environment to gain experience from the learning process". The curriculum used is the 2013 curriculum, learning using the 2013 curriculum is scientific and contextual learning with the hope that students will have a balanced ability in attitudes, skills and knowledge that is better than before (Hosnan, 2014). Learning the 2013

curriculum learning activities in schools provide opportunities for students to be active in learning.

Learning in elementary schools must be adapted to the stages of development of the age of elementary school students. The age of elementary school students enters the age of 7-11 years, at that age according to Jean Piaget's theory (Marinda, 2020) The child enters the stage of concrete operational development. At this stage students have thoughts concrete and translate what is seen in other forms. Based on Piaget's cognitive development, elementary school age students have not been able to properly understand mathematics which has an unreal form.

Mathematics is a subject that requires critical, creative and active thinking. Mathematics learning activities aim to build students' new knowledge so that they can master mathematical concepts well (Susanto Ahmad, 2016). Teachers in implementing mathematics learning can create meaningful learning. Then students can interpret the learning process and construct it in their lives. Mathematics learning activities in schools should be able to build understanding in students.

Observations that have been made in class V SD Negeri 2 straddle in learning mathematics are known that many students have not been able to understand geometric material properly and have a low attitude of independence. This is shown by the acquisition of students' daily mathematics test scores. There were 10 students whose grades did not meet 70 (KKM) and 18 other students scored 70. Based on the results of interviews during the learning activities (1) some students did not focus on the teacher. (2) students do not read books supporting the material. (3) In doing assignments students are very dependent on the answers of friends (4) Students do not work on questions on LKS if not asked by the teacher. This shows the learning independence of students who are still low.

Learning in a broad sense is a process that causes a change in behavior for some reason (Wahab, 2016). According to (Susanti, 2019) learning achievement is the ability of more than other students while at the same time being able to achieve high standards. From several opinions of experts related to learning achievement, it can be concluded that learning achievement is the result of a study carried out by students to produce good changes in students.

Learning independence is the attitude of students in learning who can master the material, have responsibility and do not depend on other people. Learning independence is needed to achieve maximum learning achievement. Learning independence can make students have the urge to carry out learning activities optimally. Independence is usually characterized by being responsible, creative ability and initiative, being able to hold back, regulate behavior, make their own decisions without any influence from others (Suid, 2017).

Learning models and media have an important role in achieving learning in the classroom. Teachers must be creative and innovative using learning models that suit the needs of students. Understanding the various problems found, researchers try to find suitable learning models and media, namely by applying the Discovery Learning learning model assisted by spatial framework learning media. Discovery learning is a model learning that involves students making observations, experiments, or scientific actions to get conclusions (Saifuddin, 2014). The discovery learning model is effective for learning because this model can provide opportunities for students to find solutions to the problems they face, the ability to understand mathematical concepts of students who get discovery learning is better than the ability to understand conventional learning mathematical concepts (Marinda, 2017). Implementation of learning with a Discovery Learning approach with a Scientific approach activities carried out by students in a scientific approach is giving a stimulus, namely observing and asking questions, while the activity most often carried out is identifying problems using a scientific approach is reasoning (Hajar, 2017) . The discovery method allows learning to emphasize directly on the experience of students being able to understand scientific disciplines and being able to develop important ideas (Fahmi et al., 2019)

The use of instructional media influences the success of the teaching and learning process. During learning, teachers usually use the learning environment as a facilitator to provide good material to students, using the learning environment in learning can have a psychological effect on students and build student motivation. The use of the learning environment in the lesson introduction phase has a significant impact on learning effectiveness (Junaidi, 2019). according to the learning environment, students need a facilitator, or in everyday language, a learning environment where the teacher can use the learning environment to entertain students so they don't get bored while

teaching and get bored easily (Zaini, 2017). Student activities in the implementation of learning geometry with the learning method "Discovery" Scientific learning means that in a scientific approach, the activities carried out by students are stimulation, that is. One scientific approach is thinking (Hajar, 2017). Through the use of research learning models and learning environments, students' construction of knowledge from course experience is in the foreground. By using the Discovery Learning model, it can be seen that students know how to spell concepts correctly and can explain them in their language (H. Sinambela et al., 2018)

Based on the problems found by the researcher, the researcher is interested in conducting research entitled " Improving Learning Achievement and Student Independence Using the *Discovery Learning Model* Assisted by Media Building Frameworks on Building Materials for Class V SD Negeri 2 Mengngkang. Somagede District

RESEARCH METHODS

This type of research is classroom action research. Classroom action research is research that explains changes in the treatment given (Arikunto, 2015). Classroom action research is carried out starting from the planning stage to learning evaluation. Classroom action research was conducted in 2 cycles. This study was carried out by the findings of the problems that exist in class V SD Negeri 2 Mengngkang.

This research was conducted at SD Negeri 2 Assemble, Somagede District, in the even semester of the 2022/2023 academic year. The subjects of the class action research were all students in class V totaling 28 students consisting of 13 male students and 15 female students as well as the teacher who acted as the researcher. Data collection techniques used in This research use test instruments and observation sheets and questionnaires to determine the increase in student learning achievement and the attitude of independence of students. Observations were made to determine the involvement of students and teachers in ongoing learning while tests were used to measure student learning achievement, and questionnaires were used to determine students' independent learning attitudes.

Data collection techniques consisted of tests, observations and questionnaires. The instruments consist of test instruments and non-test. The test is a technique by for

answering questions made by students (Arifin, 2017) . The test is a set of questions given to students to get answers (Sudjana, 2017). In this study, the form of the test used was a written test. Tests are given at the end of each cycle meeting to determine the achievement of learning objectives. Non-test instruments consist of observation, questionnaires, and documentation of learning activities.

RESULTS AND DISCUSSION

Learning achievement

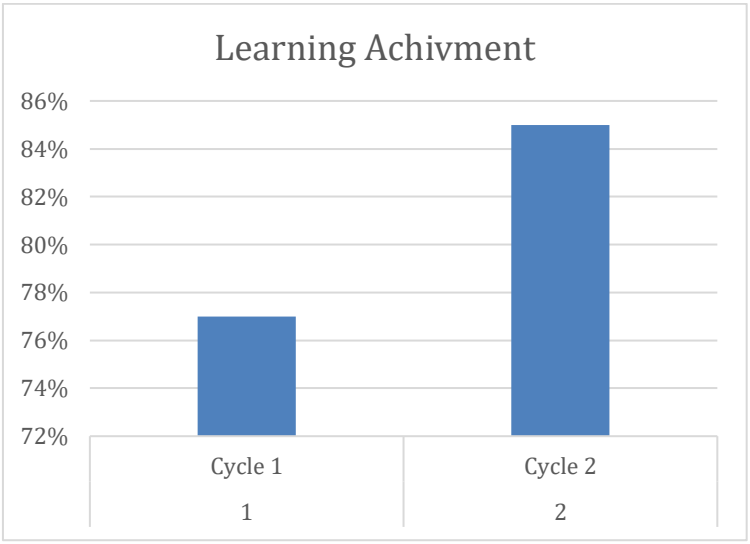
The data was obtained from the results of question sheets and questionnaires consisting of 2 cycles. The question sheet is used to determine the increase in student achievement from cycle 1 and cycle 2 as shown in the table below:

Table 1. Student Achievement Results

NO	Study	Percentage	Criteria
1	Cycle 1	77%	Good
2	Cycle 2	85%	Very good

The table above describes the results of increasing learning achievement done from 2 cycles. Cycle 1 obtained a score of students' learning achievement test results by 77% and in cycle 2 the average percentage of learning achievement test results increased by a percentage to 85% with very good criteria, this can be seen in the histogram image below

Image 1. Histogram of students learning achievement improvement



Based on the histogram above, it shows an increase in learning achievement from cycle 1 to cycle 2. Increased learning achievement of students due to lack of learning in cycle 1 is used as evaluation material to be further improved in learning cycle 2. Learning in cycle 2 is improved so that learning achievement increases. The increase in student learning achievement can be seen based on the results of the evaluation questions that are carried out at the end of each meeting.

Learning consists of 2 cycles using the discovery learning model with spatial media frameworks to make learning centered on students. Students actively participate in learning that is carried out starting from the stages of (1) stimulation, (2) problem statement, (3) data collection, (4) data processing, (5) verification, up to stage (6) generalization. In the core learning activities, learners Look for the properties of the shapes that have been grouped. At this stage, students work on LKPD by looking for various learning resources, discussing and presenting the results of the discussion in front of the class so that the learning carried out can make students active in learning. In the final stage, the teacher conducts questions and answers to students so that learning conclusions can be drawn, after concluding students work on evaluation questions to measure student achievement.

Independent Learning

The implementation of class action research was carried out in class V SD Negeri 2 Assemble on geometric material to get results, namely increasing the attitude of independence of students from cycle 1 to cycle 2, increasing the attitude of independence

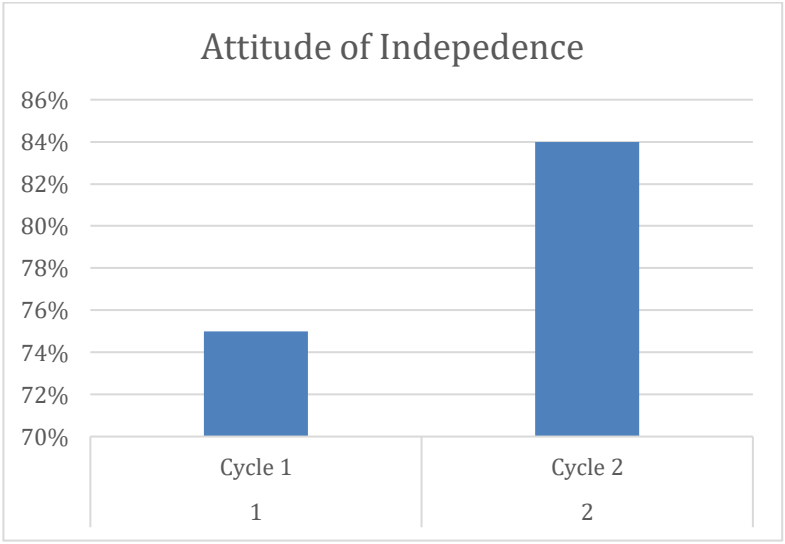
as evidenced by questionnaires. The questionnaires are given to students at the end of each lesson. Questionnaire contains 20 questions adapted to existing indicators. How to fill out this questionnaire, students choose answers according to what students experience during the learning process. The results of increasing learning independence can be seen below:

Table 2. Increasing Student learning independence

No	Study	Percentage Average score
1	Cycle 1	75%
2	Cycle 2	84%

The table above explains that the results of the student independence attitude questionnaire were carried out in 2 cycles. Cycle 1 has a percentage gain of 75% and cycle 2 has increased with a percentage of 84% which shows very good criteria can be seen in the histogram below:

Image 2. Histogram of increasing student learning independence



Based on the histogram above, it shows that there is an increase in the attitude of independence in student learning from cycle 1, which is 75%, increasing in cycle 2 to 84%. Learning using the discovery learning model with the help of spatial framework media that has been carried out shows an increase in the attitude of independent learning. Discovery learning is a model that begins with a stimulus organized by students (Burhendi et al., 2019) Students are very actively involved in learning when learning students are increasingly more confident, and not dependent on their friends. Students can independently do the task without any orders from the teacher. When presenting the results of the discussion in front of the class students have increased self-confidence. This happens because learning with the discovery learning model makes students find various learning discoveries individually to increase the attitude of student independence increases.

CONCLUSION

The Discovery Learning model assisted by geometric media can improve student learning achievement in geometric material. Increased learning achievement can be seen from the research results. The learning completeness of students in cycle 1 was 77% with good criteria increasing in cycle 2 to 85% with very good criteria.

Based on the results of the assessment on the student achievement evaluation question sheet, the increase in student learning achievement was due to the discovery learning model making students actively involved in the learning being carried out. Students actively find information and process information properly according to the material presented by the teacher. Students are also able to overcome the problems that exist in the learning that is done.

Discovery Learning model assisted by spatial framework media can improve the attitude of independent learning of students as indicated by the results of the questionnaire in cycle 1 75% achieving an average score with good criteria and the results of the questionnaire in cycle 2 increased to 84% with very good criteria.

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