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Application of Demonstration Methods to Improve Learning Outcomes of Class X IPS Students of SMA Negeri 62 Central Maluku

Sri Ratna Sari[1], Ayatollah Muhammadin Al Fath[2]
[1]Teacher at SMA 62 Central Maluku
[2]College of Teaching and Education STKIP PGRI Pacitan, Indonesia
Email: [1]sriratnasari64@gmail.com, [2]ayat@stkippacitan.go.id

ABSTRACT
This study aims to describe the application of the demonstration method, and the obstacles during the application of the demonstration method to improve student learning outcomes in class X IPS SMA Negeri 62 Central Maluku. This research is a type of classroom action research conducted in two cycles with four stages including planning, action, observation, and reflection. The research subjects were teachers and students of class X, totaling 35 students. Data collection techniques used in research are observation, tests, interviews, and field notes. The instruments used in this study were observation sheets, test sheets, interview sheets, and field note sheets. The results of observing teacher activity in cycle I was 2.6 increasing to 3.7% in cycle II. Then, the results of observing student activity in the first cycle were 67, 4 increased to 87.4 in cycle II. Data on the results of classical student learning completeness in cycle I showed that the percentage of students who completed learning was 59.4% and increased to 84.4% in cycle II. The obstacles encountered in cycle I and cycle II can be overcome properly. Based on the results of this study, it was concluded that the application of the demonstration method in class X SMA 62 Maluku can improve student learning outcomes.

Keywords: CAR, Demonstration, Method, Learning

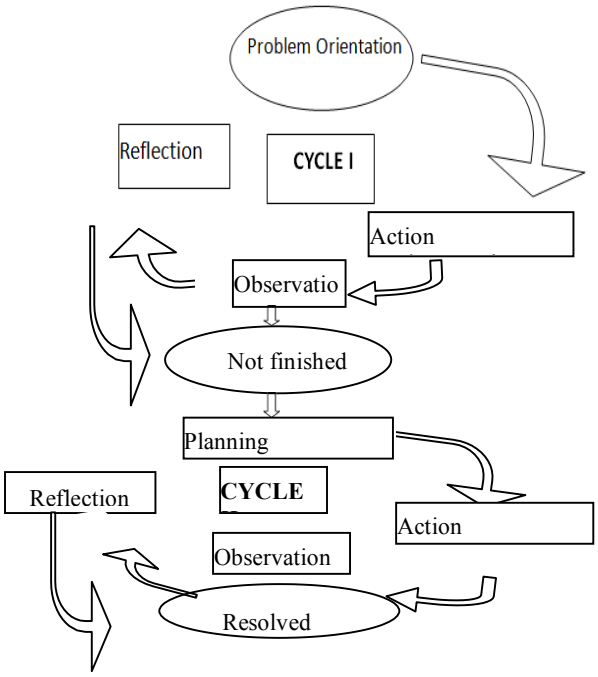
Introduction

Education is an effort to improve human resources. Improving the quality of education is a top priority, one of which is improving the quality of the learning process(Gonzalez & Mohamad, 2022). In improving the quality of education teachers have an important role to achieve learning objectives. There are many things teachers can do to improve classroom teaching by increasing their perceptions of their own abilities (Joel, et all, 2012). Improving student learning outcomes and developing self-potential in dealing with and solving life's problems is very dependent on the teacher. Education delivers students to a better future. Construction of knowledge in the minds of teachers can integrate the context, content, instructional pedagogy of their students(Chien, 2015). In the context of education and meeting the needs of students rely heavily on teachers to facilitate positive educational outcomes(Leptokaridou & Papaioannou, 2016). A professional teacher is a teacher who has basic skills in his field and is able to utilize and interpret a learning process well. This opinion is supported by Piaget's theory, saying that learning should focus more on the actions taken by the teacher, rather than cognitive mechanisms(Schwichow et al., 2016). One of them is by choosing and using the right learning method. Learning at school is expected to be able to direct students to find their own concepts through their understanding, and actively develop their knowledge. Educators must have the ability to diagnose and analyze practical learning problems(Ertmer, & Newby, 2011). The learning process is expected to be able to develop creativity and student learning outcomes in accordance with the four pillars of education. Teachers can discover the computational processes that underlie student development(Gopnik & Wellman, 2012).The greatest effect on student learning occurs when teachers become learners of their own teaching, and when students become teachers themselves(Stigmar, 2016). In improving the quality of teaching, teachers should be able to plan learning programs well and carry out learning innovations. One strategy to achieve success in the competence of a subject is to make and carry out active

learning.(Mudjiono, 2013), suggests several characteristics of active learning as follows: (1) student-centered learning; (2) Learning related to the real world; (3) Learning encourages children to think at a higher level; (4) Learning caters for different learning styles of children; (5) Learning encourages children to interact in multiple directions (student-teacher); (6) Learning to use the environment as a medium or learning resource; (7) child-centered learning; (8) Structuring the learning environment makes it easier for students to carry out learning activities; (9) The teacher monitors the student learning process; and (10) The teacher provides feedback on the child's work. Based on the observations, it was found that some students were less active (passive) in advancing their understanding and knowledge related to Geography learning materials, especially the basic knowledge material on mapping, remote sensing and GIS. Teachers often face challenges when compiling collaborative activities for students in learning(Janssen, 2019). The learning method used by the teacher in learning activities is a direct learning method with the help of using textbooks so that learning is usually done by recording material in books. The above resulted in a lack of student involvement in learning so that geography became a subject that was less interesting, difficult to understand, less desirable and considered difficult, and boring so that it had an effect on low geography learning outcomes. The Minimum Completeness Criteria (KKM) set by schools on the basic knowledge of Mapping, Remote Sensing and GIS for the 2021/2022 school year, namely a minimum of 75 KKM scores. This situation, of course, must get the attention of geography teachers specifically to make new alternatives in improving the teaching and learning process, especially the basic knowledge of Mapping, Remote Sensing and GIS, one of the ways that teachers can do is to use appropriate learning methods by involving active students in convey ideas, opinions, examine a problem, and be more critical, namely learning through the use of media such as image analysis. The use of learning media that can help students be more motivated to gain an understanding of the subject matter. In assisting this active learning strategy, teachers can apply various appropriate learning methods and learning models. Each learning method or model applied will have a different impact on student competence(Jalinus et al., 2019). One of the methods applied in relevant learning is the demonstration according to learning methodSandy, (2011), the demonstration learning model is a way of delivering material by demonstrating a process or activity. In addition to making students more active and critical, the Demonstration learning model can also make students more motivated because this learning uses images or tools that can be demonstrated so that this learning method can be applied to basic knowledge material on Mapping, Remote Sensing and GIS, and in I hope students are more interested in learning it.

Research Methodology

This research uses a type of classroom action research method. Classroom action research is research that aims to increase student activity during learning. Through PTK, it is expected to be able to find solutions to solve problems in learning in the classroom. The classroom action research conducted in this study used the Kemmis and McTaggart classroom action research models. This model consists of four components, namely the implementation of actions, planning, reflection, and observations which are carried out in one lesson. The following is the flow of the Kemmis and McTaggart class action research design in(Iskandar, 2012):



This research was conducted from August to September in the odd semester of the 2021/2022 school year. The research location is SMA Negeri 62 Central Maluku which is located at Telaga Kodok Village, Leihitu District,

Central Maluku Regency. The number of students is 35 students consisting of 13 male students and 22 female students. The research was carried out in two cycles. Each cycle is held in two meetings consisting of four stages, including: 1) planning; 2) implementation of actions; 3) observation and evaluation; 4) reflection in each cycle. At the planning stage, the activities carried out are; 1) Develop a learning implementation plan (RPP); 2) prepare the resources, materials and tools needed in learning; and 3) prepare test instruments in the form of evaluation questions. Then at the implementation stage the action is carried out by applying the demonstration learning method to learning according to the prepared lesson plan. Researchers carry out learning activities according to the lesson plan at the implementation stage and the class teacher as an observer to provide an assessment on the observation sheet.

The next stage is observation, at this stage observations are carried out on the implementation of learning using the demonstration learning model. The implementation of the observation was carried out with the aim of observing the teaching and learning activities of teachers and students in learning. The final stage is reflection. Reflection is carried out after completing the implementation of learning using the demonstration model. In this stage, the results of student self-evaluations are collected and analyzed. So that the final result is obtained from the implementation of learning using the demonstration model. If the results of the data have not reached success. So it is necessary to do research in the next cycle. Based on the reflection results, indicators will be known that need to be evaluated in preparation for the implementation of learning in the next cycle. Cycle II was carried out as an evaluation action in cycle I learning. The stages in cycle II were almost the same as cycle I. The activities carried out in cycle II were as follows: (1) Compile lesson plans, and (2) Prepare learning materials. In cycle II, reflection was also carried out to see the development of research implementation. Furthermore, the results of the data obtained were analyzed to obtain conclusions about the application of the demonstration model to the learning outcomes of class X students of SMA Negeri 62 Central Maluku. Data collection techniques used were observation, tests, interviews, and field notes. The observation stage aims to see the activities of teachers and students in learning using demonstration models to improve student learning outcomes. Furthermore, data analysis was carried out on student scores, average scores, and the percentage of student learning outcomes for the data obtained. The formula used is as follows:

$$Nilai\ siswa = \frac{Skor\ perolehan\ siswa}{Skor\ maksimum}\ 100$$

(Suparno, 2008:80)

Calculation of the average student learning outcomes using the following formula:

$$X = \frac{xi}{n}$$

(Sudjana, 2022)

Information:
X = Average value
Xi = Score of each student
N = Number of students

While the presentation of student learning outcomes that have been completed is calculated using the formula:
$\%\ \text{tuntas} = \frac{\sum TB}{N}\ x\ 100$

(Sudjana, 2002)

Information:
∑TB = Number of students who have completed their studies
N = Total number of students

Results and Discussion

The first stage in cycle I is planning. The things to do at this stage are to make lesson plans for cycle I activities using the demonstration learning model which will be applied to improve student learning outcomes in class X SMA Negeri 62 Central Maluku. Next, prepare sources, materials, and tools, namely preparing maps and student worksheets (LKPD). Then prepare test instruments for the final evaluation of learning in cycle I. The implementation stage of the Action is the stage where the demonstration learning model is used in Geography learning activities in accordance with the prepared lesson plans. Cycle I was carried out in one meeting. Cycle I was carried out on August 22, 2021. In the initial activities carried out by the teacher are: (1) greeting; (2) inviting students to pray to start learning activities; (3) paying attention to student readiness; (4) write the main material and

goals to be achieved; (5) divide into groups of students consisting of 4-5 students. Furthermore, the core learning activities of the teacher prepare pictures in accordance with the learning objectives which are displayed through the LCD/OHP sub-mapping material, students are given instructions and the opportunity to pay attention/analyze the pictures, the teacher distributes LKPD related to maps to each group, students are asked to discuss image analysis and analysis results are written on LKPD, the teacher guides students in group discussions, each group is given the opportunity to read the results of the discussion, the teacher gives positive reinforcement to students on the results of student discussions in each group, and the teacher confirms the material according to the learning objectives to be achieved.

Table 4.1 Completeness of Cycle I Student Learning Outcomes

NO	Student's name	CYCLE I		
		Mark	Information	
			Q	BT
1	AFM	77	√	
2	US	54		√
3	AR	77	√	
4	AD	73	√	
5	AZH	71	√	
6	ASF	69	√	
7	BDPC	52		√
8	CFH	81	√	
9	DAP	71	√	
10	DNG	69	√	
11	FM	52		√
12	FAF	58		√
13	BD	82		√
14	DH	80		√
15	MNK	90		√
16	LH	67	√	
17	lol	48		√
18	YOUR	50		√
19	MA	71	√	
20	MJ	73	√	
21	MWS	50		√
22	mas	48		√
23	NRA	60		√
24	POWS	88	√	
25	PS	75	√	
26	PGAS	65	√	
27	RZE	48		√
28	RM	56		√
29	BC	77	√	
30	SJA	58		√
31	SA	81	√	
32	SAD	46		√
33	IT	-	-	
34	ASD	-	-	
35	ZP	-	-	
Average		**65**		

min value	**46**		
Max value	**88**		

Description: T = Completed BT = Not Completed

The results of the analysis of the data contained in table 4.1 in the first cycle test, the lowest score obtained by students was 46 and the highest score was 88. The percentage of completeness in geography learning outcomes for class X SMA Negeri 62 Central Maluku by applying the demonstration learning model in cycle I can be seen in Table 4.2 follows: Table 4.2 Analysis of Student Completeness in Evaluation of Cycle I

Completeness	Amount	Percentage
complete	19	59.4%
Not Completed	13	40.6%
Total number	32	100%

Based on the results of the implementation of learning in cycle I, collaboratively the teacher as a researcher, class X IPS 3 teacher as an observer and colleagues, conduct discussions as material for reflection to improve the learning process by applying the demonstration model. The target of improvement which is more important and becomes material for deeper discussion is related to the lack of achievement of indicators of success in student learning outcomes. Based on the results of the first cycle evaluation test, it had not reached completeness where 13 students out of 35 students (40.6%) scored below 75.

Cycle II

Implementation of cycle II as a result of evaluation, observation and reflection on the actions of cycle I, the researcher plans the actions of cycle II, weaknesses and deficiencies in cycle I will be corrected and carried out in cycle II, so that the Demonstration learning model implementation is better than before. Planning activities in cycle II begins with making a Learning Implementation Plan for Cycle II for the Sub Material of Remote Sensing for the third meeting in accordance with the stages of the Demonstration learning model and the results of reflection carried out in cycle I. Then make an evaluation tool for the Sub material of Remote Sensing to determine learning outcomes students after participating in learning activities using the Demonstration learning model in the form of cycle tests and making answer keys. The implementation of the actions in cycle II was carried out in two meetings, which were carried out in accordance with the lesson plan. In the initial activity the teacher does the following things, namely: (1) greets; (2) inviting students to pray to start learning activities; (3) paying attention to student readiness; (4) write the main material and goals to be achieved; (5) divide into groups of students consisting of 7-8 students by directing students to sit according to the groups that have been divided before. In the core learning activities, the teacher prepares images according to the learning objectives by displaying displays via the LCD/OHP about remote sensing. In addition, the teacher gives instructions and provides opportunities for students to pay attention / analyze the pictures and distribute LKPD to each group. Students are also asked to discuss image analysis and the results of the analysis are written on the LKPD. Then the teacher guides students in group discussions, while at the same time giving students the opportunity for each group to read the results of their discussion. In the closing activity the teacher gives conclusions regarding the subject matter, conveys the sub-material that will be studied at the next meeting and gives pressure to students to study it and closes the lesson.

Table 4.1 Completeness of Cycle II Student Learning Outcomes

NO	**Student's name**	**CYCLE I**		
		Mark	**Information**	
			Q	**BT**
1	AFM	77		√
2	US	80		√
3	AR	77		√
4	AD	73		√
5	AZH	71		√
6	ASF	69	√	
7	BDPC	79		√

8	CFH	81		√
9	DAP	71		√
10	DNG	82		√
11	FM	80		√
12	FAF	82		√
13	BD	82		√
14	DH	80		√
15	MNK	90		√
16	LH	67	√	
17	lol	75		√
18	YOUR	82		√
19	MA	71		√
20	MJ	73		√
21	MWS	80		√
22	mas	72		√
23	NRA	84		√
24	POWS	88	√	
25	PS	75		√
26	PGAS	80		√
27	RZE	48		√
28	RM	82		√
29	BC	77	√	
30	SJA	80		√
31	SA	81	√	
32	SAD	46		√
33	IT	-	-	
34	ASD	-	-	
35	ZP	-	-	
Average		**65**		
min value		**46**		
Max value		**88**		

Description: T = Completed BT = Not Completed

The results of the analysis of student learning outcomes in cycle II showed that the learning outcomes of class X students of SMA Negeri 62 Central Maluku by applying the Demonstration learning model showed that the average learning outcomes obtained by students was 82. Student learning outcomes in cycle II with the highest score were 100 and the lowest value is 54

Table 4.8 Percentage of Completeness of Cycle II Learning Outcomes

Completeness	Amount	Percentage
complete	27	84.4%
Not Completed	5	15.6%
Total number	32	100%

Table 4.8 shows that in cycle II the percentage of student learning completeness was 84.4% or 27 students scored ≥ 75 or had achieved the Minimum Mastery Criteria KKM) and the percentage was 15.6% or 5 students scored < 75 or had not achieved KKM (Minimum completeness criteria). In cycle II it was found that the number of students who completed was more than the number of students who did not complete.

Conclusion

The implementation of learning using the demonstration method obtained good results. This is shown in the student learning outcomes in cycle I and cycle II which experienced an increase in students' final grades. In addition, the results of observations of teacher and student activities have also increased. The results of teacher activity in cycle I reached 67.4% then increased to 87.4% in cycle II. The results of observing student activity in the first cycle reached 78%, increasing in the second cycle to 82%. While student learning outcomes in cycle I were 59.4% or 19 of 32 students who scored ≥ 75 or had achieved KKM (Minimum Mastery Criteria). In cycle I, the percentage of students' learning completeness did not meet the classical mastery criteria, namely at least 75% or 24 of 32 students. In cycle II, the percentage of student learning completeness was 84.4% or 27 students scored ≥ 75 or had achieved KKM (Minimum completeness criteria) and the percentage was 15.6% or 5 students scored < 75 or had not reached KKM (criteria mastery). minimum). In cycle II it was found that the number of students who completed was more than the number of students who did not complete.

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