



Using Problem-Based Learning to Boost Social Studies Performance: Classroom Action Research in Grade 5 at SD INPRES 3 Talise

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Submitted: 2024-07-18

Revised: 2024-08-15

Accepted: 2024-09-30

ABSTRACT

The role of education in developing effective problem solvers, critical thinkers, and responsible members of society is of great importance. This research deals with the low performance in social studies subjects caused by the continued application of conventional teaching models. The aim of this study is to improve the learning outcomes of grade V students in social studies subjects at SD INPRES 3 Talise by applying the Problem-Based Learning (PBL) model. This classroom action research was conducted in two cycles, following the Kemmis and McTaggart model, involving 22 students from grade V. Data were collected through tests, observations, and interviews, then analysed quantitatively and qualitatively. Initial observations revealed that only 36.36% of students achieved the learning objectives with an average score of 50.90. The implementation of PBL involved the collaborative planning, action, observation, and reflection phases. The results demonstrated significant improvements in student engagement and learning outcomes. The average score increased, and the percentage of students who achieved the learning objectives rose significantly, respectively from 63.63 in cycle I to 81.59 in cycle II. However, the average score did not yet reach the KKM. Furthermore, the percentage of completeness has also increased, namely in cycle I by 59.09% and cycle II by 86.36%. This research demonstrates that PBL can effectively enhance the quality of social studies education by fostering learning.

Keywords: Problem-Based Learning; Social studies; Elementary school students

ABSTRAK

Pendidikan memainkan peran penting dalam mengembangkan pemecah masalah yang efektif, pemikir kritis, dan anggota masyarakat yang bertanggung jawab. Penelitian ini menanganinya

kinerja dalam mata pelajaran IPS yang disebabkan oleh masih menerapkan model pengajaran konvensional. Penelitian ini bertujuan untuk meningkatkan hasil belajar siswa kelas V pada mata pelajaran Ilmu Pengetahuan Sosial (IPS) di SD INPRES 3 Talise dengan menerapkan model Pembelajaran Berbasis Masalah (PBM). Penelitian tindakan kelas ini dilakukan dalam dua siklus, mengikuti model Kemmis dan McTaggart, melibatkan 22 siswa dari kelas V. Data dikumpulkan melalui tes, observasi, dan wawancara, kemudian dianalisis secara kuantitatif dan kualitatif. Observasi awal mengungkapkan bahwa hanya 36,36% siswa yang mencapai tujuan pembelajaran dengan nilai rata-rata 50,90. Penerapan PBL melibatkan fase perencanaan kolaboratif, tindakan, observasi, dan refleksi. Hasil penelitian menunjukkan peningkatan signifikan dalam keterlibatan siswa dan hasil belajar. Nilai rata-rata meningkat, dan persentase siswa yang mencapai tujuan pembelajaran naik secara signifikan yaitu secara berturut-turut 63,63 pada siklus I namun belum mencapai KKM, dan pada siklus II meningkat menjadi 81,59. Selain itu persentase ketuntasan juga telah meningkat yaitu pada siklus I sebesar 59,09%, dan siklus II sebesar 86,36%. Penelitian ini menunjukkan bahwa PBL dapat secara efektif meningkatkan kualitas pendidikan IPS dengan mendorong pembelajaran aktif dan berpikir kritis di kalangan siswa.

Kata Kunci: Pembelajaran berbasis masalah; Ilmu pengetahuan sosial; Siswa sekolah dasar

INTRODUCTION

Education develops knowledge, skills and attitudes to make one an adept problem solver, a self-reliant critical thinker, a perpetual learner, and a conscientious member of society. There are several important aspects that are necessary instilled from an early age in students, including how to learn in making joint decisions, sharing information, collaborate, innovate, and work quickly and intelligent (Arsyad, 2021). In addition, education plays an important role in shaping people's mindsets, enabling them to survive and plan for a better future. Education strategies, including compulsory basic education, are needed to create a superior generation of Indonesians in 2045, capable of participating in global development and facing challenges (Sofyan & Sanusi, 2023).

Education cannot be separated from the times. Indonesian education is required to continue to develop along with advances in science and technology. The flexible education system offers tailored, efficient, and effective learning experiences for students by continuously adjusting the learning materials to match their unique abilities and preferences (Khosravi dkk., 2020). In accordance with Law No. 20 of 2003 on the National Education System, education is "a conscious and planned effort to create a learning atmosphere and learning process so that students actively develop their potential to have religious spiritual strength, self-control, personality, intelligence, noble character, and skills needed by themselves and society."

One of the important subjects at the elementary school level is Social Studies. This subject focuses on understanding and appreciation of the social environment in accordance with real events, and examines the problems of community life such as differences of opinion, economic needs, and culture (Sandahl, 2020). The success of social studies learning is influenced by many factors, including the selection of the right learning approach. The use of inappropriate methods can hinder the learning process and reduce student learning outcomes (Aviari dkk., 2024). Lestari (2022) emphasized that social studies teaching should be adapted to the characteristics of children in elementary school by using varied learning methods so that students are interested and active in the learning process.

Initial observations at SD INPRES 3 Talise showed that the learning outcomes of grade V students in social studies subjects were still low with an average score of 50 points. Many students have not understood the social studies material well, which is caused by the dominant

learning method of lecture. Students often feel bored because they only listen and record the material delivered by the teacher. Therefore, teacher creativity is needed in choosing and using the right learning model to support the teaching and learning process.

One of the student-centered learning models is Problem-Based Learning (PBL). This model emphasizes the process of solving problems faced scientifically (Jannah dkk., 2023). According to Rorimpandey dkk., (2023) PBL involves using individual intelligence in groups to solve relevant and contextual problems. Syahrir dkk.'s study (2023) showed that the PBL model improved elementary school students' social studies learning outcomes from 8.9% to an average increase of 30%. In addition, Sari's research (2020) shows that the application of the Problem-based Learning model improves the learning outcomes of grade V students, with an average increase of 75%. Mudrikah (2021) also mentioned that PBL has a student-centered approach, where students identify the problems they want to study, look for materials and other necessary sources, with the teacher acting as a guide who helps monitor problem-solving efforts.

There have been several studies that show PBL is able to improve learning outcomes with more student-centered learning, but there has never been classroom action using PBL in grade V with the problems that exist at SD INPRES 3 Talise. So this study aims to improve student learning outcomes in grade V social studies subjects through the application of the Problem-Based Learning Model at SD INPRES 3 Talise. With this model, it is expected that students can better understand the material taught and improve their learning outcomes.

METHODS

Type and Design

This type of research follows a cyclical research model that refers to the classroom action research design proposed by Kemmis and McTaggart (Alwi & Helsa, 2019). This design can be used by researchers because it can find solutions to existing problems. This model is also based on the level of the researcher's ability and conditions in the field. Kemmis and McTaggart design includes four stages: (i) planning, (ii) action implementation, (iii) observation and (iv) reflection. The use of this model is justified by the fact that the flow used is quite simple and easy to implement. The researcher conducted preliminary observations to identify and understand the actual problem. Based on the initial reflection results, the problem can be pinpointed and formulated into a research question. From this problem formulation, research objectives can be established. At the planning stage, the researcher designs solutions to overcome learning problems faced in the classroom.

The solution is then implemented in the action stage, where the researcher carries out the plan while observing the process and results. These observations are then analyzed in the reflection stage to evaluate the effectiveness of actions and formulate improvement steps. This cycle is carried out continuously to ensure continuous improvement in the teaching and learning process. CAR is participatory and collaborative, involves various parties, such as students and colleagues, and focuses on improving practice and developing teacher professionalism through critical reflection. The implementation of actions, aimed at improving, enhancing, or altering the situation, follows the action plan. In Classroom Action Research (CAR), observation activities are analogous to informal data collection. Through

thorough reflection, firm and precise conclusions can be drawn. The flow of implementation of the intended action is as in Figure 1.

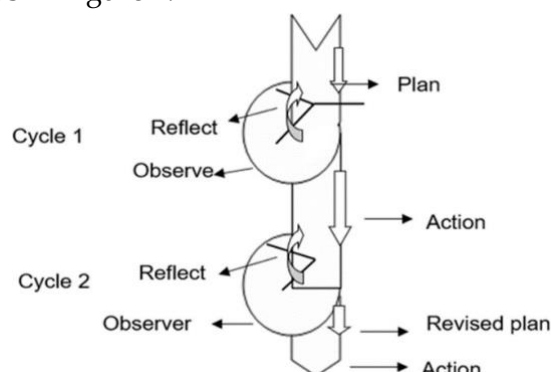


Figure 1. Kemmis and Mc Taggar Model of Classroom Action Research

Data and Data Sources

The research was conducted at SD INPRES 3 Talise, Palu district, Central Sulawesi province. Conducted in two meetings in semester II of the 2024/2025 school year. The subjects of this study were students of SD INPRES 3 Talise class V, with a total of 22 students. The gender distribution was 11 girls and 11 boys. The sample determination used purposive sampling based on the criteria of the class that experienced the most decline in social studies learning outcomes in class V elementary school. The types of data in this study are quantitative data obtained from the assessment of student learning outcomes and qualitative data from teacher and student activity. Conducting CAR in this schools allows researchers to consider social and cultural factors that directly influence students. By understanding the school environment, teachers can design actions that are more targeted and effective in helping students' academic and social development.

Data Collection Technique

This research was conducted to improve student and teacher learning activities and student learning outcomes by applying problem base learning model in social studies subjects in Class IBof SD INPRES 3 Talise. The stages of the research procedure carried out are as follows:

1. Planning
 - a. The researcher collaborates with the teacher to prepare the design of learning activities that will be implemented during the research.
 - b. The researcher prepares the equipment that will be used in the research.
 - c. The researcher prepares research instruments in the form of observation guidelines, in order to collect information on student learning outcomes that can be monitored. The research instruments also include indicators of student learning outcomes that appear and develop in learning processes and activities.
2. Action and Observation

The implementation of the action was carried out in two cycles, each of which was carried out for (2 X 45 minutes). In the action implementation stage, learning activities are carried out based on lesson plans that have been designed by researchers and teachers as collaborators specifically so that students' social skills can be developed and also improved

(Oktavia & Sutapa, 2019). During the learning activities, researchers made observations using observation sheets that had been prepared to monitor and collect data on student learning outcomes.

3. Reflection

At this stage, evaluation and reflection on the implementation of learning activities that have been carried out are carried out. Researchers collaborate with teachers to formulate conclusions through data analysis obtained during learning activities. The results of the reflection are used to improve the action in the next cycle if the cycle I action has not reached the success criteria.

In this study, data collection was carried out through test techniques in the form of oral and written questions with the aim of obtaining data on student learning outcomes and non-tests through observations of teacher and student activities. Observations can be made by interview after giving.

Data Analysis

1. Quantitative

In quantitative data processing, analysis of observation results and student learning outcomes scales is used. The analysis was carried out by scoring each item. The criteria for scoring observation items and student learning outcomes scales and observations are respectively carried out by finding the ideal maximum score, then summing the raw scores obtained by students, then finding the percentage of the student learning outcomes scale with the formula (Arikunto dkk., 2021).

$$\text{Percentage of Results} = \frac{\text{Raw Score}}{\text{Maximum Score}} \times 100\%$$

A class is declared classically complete if > 80% of students have completed (source: KKM SD INPRES 3 Talise). The results of the acquisition of each student's score are then calculated the average value (mean) at the end of the cycle with the formula for finding the average (mean) is as follows.

$$X = \frac{\sum x}{\sum n}$$

Description:

X = Average

$\sum x$ = Total all of student scores

$\sum n$ = Total number of students

It is posited that students have completed their learning individually when the average individual absorption is greater than 65 (source: KKM SD INPRES).

Table 1. Success criteria

Number	Criteria	Percentage (%)
1	Very good	86 - 100
2	Good	76 - 85

3	Fair	60 - 75
4	Less	55 - 59
5	Very poor	< 54

2. Qualitative

Data analysis is carried out after collecting and analyzing available data from various sources, namely from observations of field notes and giving tests. The stages of data analysis according to Arikunto dkk., (2021) are as follows:

- 1) Reviewing the data collected through selecting and grouping data in cycle one, cycle two, and so on. Analyzing activities are carried out from the beginning of data collection.
- 2) Data reduction includes categorizing and clarifying all the data that has been collected is selected according to the focus of the relevant data being analyzed, while those that are not relevant are discarded.
- 3) Presenting data by organizing data simply into tables that are annotated, so as to provide clarity.
- 4) Concluding the research results followed by triangulation activities or testing the research findings.

Qualitative data processing was taken from the data on the results of teacher and student activities, analyzed and expressed in percentage form (Adnan & Latief, 2020) which was calculated using the formula:

$$\text{Percentage of Results} = \frac{\text{Raw Score}}{\text{Maximum Score}} \times 100\%$$

> NR 90% very good

< NR 90% - 70% good

< NR 70% - 50% fair

< NR 50% - 30% less

< NR 30% - 10% very poor

RESULTS AND DISCUSSION

Pre Cycle

Pre-cycle activities in classroom action research include teacher performance observations, student activity sheets, and learning outcomes sheets (Nugraha & Suyatmin, 2021). Researchers made initial observations of students in participating in social science (IPS) subjects. At this stage the researcher held a pre-cycle that students had to do individually. Giving this pre-cycle question for class V students totaling 21 students as follows.

Table 2. Pre-Action Test Analysis

No.	Score acquisition	Results
1	Highest score	80
2	Lowest score	20
3	Number of students who completed	8

4	Number of students who have not completed	14
5	Percentage of classical completeness	36.36%
6	Average value	50.90

Source: Data from SD INPRES 3 Talise

From the pre-cycle results, it shows that the students who got the lowest score were 20 there were 3 students, 30 there were 4 students, 40 there were 3 students, 50 there were 2 students, 60 there were 2 students, 70 there were 4 students, and 80 there were 4 students and the percentage of classical learning percentages was 36.36% while the average score was 50.90 based on the pre- cycle results, the researcher understands that this happens because there are still many students who have difficulty understanding lessons through conventional learning models. Francisca dkk., (2024) had applied the PBL model based on puzzle quiz media in their research with the non- equivalent control group design quasi-experimental method, showing that there were differences in the control and experimental classes. The experimental class showed higher learning outcomes than the control class. In this class action research, researchers then applied PBL in each cycle to improve student learning activities and outcomes.

Observation of Teacher Activity in Cycle I and II

Observation of teacher activities was carried out by the fifth grade homeroom teacher using the observations that had been provided. This observation is very necessary, according to Barendsen & Henze (2019) observation of classroom interactions can help identify the suitability and differences between the teacher's personal pedagogical content knowledge and classroom practice. Observation of teacher activity starts from the beginning of learning until the end of the cycle I meeting. Observation of teacher activities in learning in accordance with the Problem-Based Learning model.

Table 3. Teacher Activity Data of Cycle I and II

No.	Aspects Observed	Assessment	
		Cycle I	Cycle II
1	The teacher greets, prays and checks attendance.	4	4
2	The teacher gives the students to sing the garuda pancasila song	4	4
3	Teacher conveys learning objectives	3	4
4	The teacher distributes pictures about the birth of Pancasila	4	3
5	The teacher asks students to observe the picture of the birth of Pancasila	4	4
6	The teacher explains what is related to the picture observed.	3	4
7	The teacher solicits opinions or asks questions related to what has not been understood.	3	4
8	The teacher divides students into groups of 5-6 people	3	4
9	The teacher distributes the LKPD and influences the problems that must be solved with the group.	4	3
10	The teacher guides groups to explore data and sources to solve	3	4

	learning problems.		
11	The teacher guides students during discussions and helps groups that are struggling.	3	4
12	Teacher students discuss and write the results of the discussion into the LKPD	4	4
13	The teacher asks each group to present their work to the class and the other groups respond.	3	3
14	The teacher gives appreciation to students who have made a percentage	4	4
15	The teacher gives evaluation questions to measure the students' level of understanding in this activity.	3	4
16	The teacher and students reflect on the lessons learned.	4	4
17	The teacher and students summarize today's learning.	3	4
18	The teacher conveys the material that will be learned next	4	4
19	The teacher invites students to do ice braking	3	4
20	The teacher asks one of the students to lead the prayer	4	4
Total score		70	77
Maximum score		80	80
Percentage		88.15%	96.25%

Observations on teacher activities in managing learning were carried out by Mrs. Sri Luciani, S.Pd. Based on her observations in cycle I, the teacher's success rate was better than the pre-cycle with a score of 88.15%. In cycle II, it increased and reached the excellent category with a score of 96.25%. Factors that cause an increase in teacher activity in learning because teachers or researchers always evaluate learning after the learning process takes place. Where the teacher or researcher is assessed by the teacher through the teacher activity observation sheet in managing learning. The results of these observations are used as a benchmark for teachers or researchers to maintain what is already good, and improve aspects that are considered good. According to the findings of Yudha dkk., (2022) alternative observations and assessments of teacher and student activities carried out regularly will build student interest, student motivation, improve teacher performance in preparing and implementing learning. Modern primary school teachers should focus on developing students' self-control and self- ability to ensure the success of educational activities through increased classroom activity.

Evaluation of teacher activity can increase teacher motivation, thus having a positive impact on teacher performance in the classroom Effiyanti dkk., (2023). More research is needed to manage this effect and consider teacher satisfaction. However, Fadlun & Fatmawati's research, (2023) shows that teacher performance has a positive effect on the academic achievement of elementary school students, with a correlation coefficient of 0.116 or 11.6% contributing to this increase. This means that if teacher performance in the classroom during learning is good, it will improve student learning outcomes and understanding as well.

Observation of Student Activity in Cycle I and II

In addition to teacher activity, the role of student activity in participating in the learning process also affects the success of improving the quality of learning and students' academic achievement. From the research that has been carried out from cycle I to cycle II, there is an improvement in the quality of learning assessed from student activities. Student activities in learning to apply the Problem-Based Learning learning model can be seen in Table 4.

Table 4. Student Activity Data of Cycle I and II

No.	Aspects Observed	Assessment	
		Cycle I	Cycle II
1	Students greet, pray and check attendance	3	3
2	Students respond during the implementation of apperception	3	4
3	Students listen to the delivery of learning objectives from the teacher	3	3
4	Students observe a video about "the birth of Pancasila"	4	4
5	Students listen to the explanation from the teacher	4	4
6	Students express opinions that have not been understood	3	3
7	Students divide into groups of 4-5 people each	4	4
8	Students listen to the explanation from the teacher about the problems that must be solved with the group.	2	3
9	Students listen to guidance from the teacher to discuss and help groups that are struggling.	4	4
10	Students discuss and write the results of the discussion into the LKPD.	3	3
11	Students present their work to the class and other groups respond.	3	4
12	Students respond to appreciation from the teacher who has presented	3	3
13	Students work on evaluation questions given by the teacher	4	4
14	Students reflect on the material that has been learned	4	4
15	Students summarize today's learning	3	3
16	Students listen to the explanation from the teacher for the next material	4	4
17	One of the students leads the prayer	4	4
Total score		58	61
Maximum score		68	68
Percentage		85.29%	89.70%

Based on the results of observations of students during the learning process in cycle I. It is known that students still look confused, do not understand the flow of learning and are embarrassed to ask questions. The teacher's job is to direct students to focus on learning, and motivate students to be more confident during the learning process in class. Pongračić dkk., (2021) explained that high levels of motivation in elementary school students are related to increased self-confidence and activity in the classroom. There are various ways to increase such motivation. Sigalingging dkk., (2023) said that simple classroom rewards are positively correlated with academic achievement and serve as a catalyst for the development of intrinsic motivation, fostering a genuine love for learning.

After the teacher made observations in cycle I, in cycle II the percentage of student activity showed that student activity in the learning process was getting better. In cycle I, student activity during the learning process reached 85.29% and in cycle II it increased to 89.70%. Based on the criteria set in the observation aspect cycle, it can be concluded that student activity is good. Therefore, the more active students are in learning, the more effective the learning is. According to Komarudin dkk., (2023) physical activity that makes students work together to solve problems has a positive effect on the academic achievement of elementary school students, even from the same school.s

Final Test of Learning Outcomes of Cycle I and II

Data on student learning outcomes in learning through the application of Problem-Based learning models, obtained by conducting tests at the end of each lesson aims to determine the success and ability of students to understand the subject matter. After the test results are collected, the data is processed by looking at the minimum completeness criteria that apply at SD INPRES 3 Talise, namely individually 65 and the percentage of class completeness of 80%. According to the theory of learning outcomes by Yeldham & Gao (2021) argues that the success of learning outcomes can be seen from the ability of students to follow the learning process, both in the cognitive, affective, and psychomotor fields. Students' abilities in this study were evaluated by cognitive tests in the form of multiple choice questions. The learning outcomes of VB class students of SD INPRES 4 Talise in social studies lessons by applying the Problem-Based Learning learning model can be seen in the following.

Table 5. Student Learning Outcomes Cycle I and Cycle II

No.	Student Name	Pre Cycle	Cycle I	Cycle II
1	AF	70	75	90
2	AL	30	55	75
3	AMP	20	65	80
4	AFK	50	80	90
5	CAS	40	45	75
6	DRZ	30	70	80
7	ETS	50	70	85
8	FNF	80	75	90
9	GMA	40	70	90
10	IN	20	65	80
11	MA	30	50	65
12	MD	80	75	90

13	MF	70	75	85
14	MTH	70	20	75
15	MN	60	30	65
16	NAK	60	80	90
17	NN	70	35	75
18	NA	40	65	65
19	RP	80	80	85
20	VPF	80	70	90
21	ZAR	20	80	90
22	AK	30	70	85
Total		1.100	1.400	1.795
Average		50.90	63.63	81.59
Not Completed		14	9	3
Completed		8	13	19

In cycle I, it showed an increase in the average score obtained of 63.63 from the previous pre-cycle of 50.90. The average value has not met the specified standard value of 65, so it is continued to cycle II. In Cycle II there was an increase in the average score, which was 81.59, the value had met the specified standard. Data on the percentage of completeness obtained in the pre-cycle, cycle I, and cycle II can be seen in Figure 2.

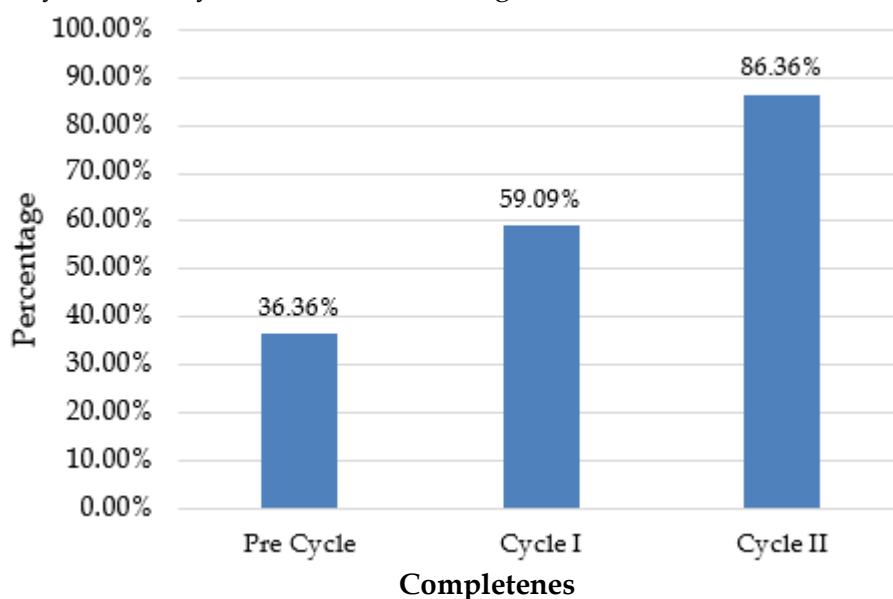


Figure 2. Student Learning Outcomes on Pre Cycle, Cycle I, and Cycle II

In cycle I based on the test results 9 out of 22 students had not completed their learning outcomes, and those who completed learning were 13 students (59.09%). The category of student completeness in classical learning is if it reaches 80% so that classical student completeness in cycle I has not been achieved. This happened because of the lack of concentration ability and students' low understanding of the material being studied so that students' learning outcomes were low. So to overcome this, teachers must be able to increase student learning activities to always be active, creative and independent in following the

learning process. Students who are active and accustomed to solving problems both independently and in groups will have good cognitive scores (Rahmani & Mahyana, 2022).

In cycle II only 3 students have not reached learning completeness, 19 students have completed learning out of 22 students (86.36%). The category of completeness in classical learning is if it reaches 80%. In cycle II the teacher was able to motivate active and creative learning in the learning process, so that it could change the learning outcomes for the better. Thus the student learning test results in cycle II were classically complete. Wakhidah & Afifulloh (2023) showed that motivation affects student activity so that they can receive lessons better. The increase in learning outcomes shows that the Problem-Based Learning model is effective in improving student learning outcomes in social studies class V at SD Inpres 3 Talise.

The research findings by Afza (2020) demonstrate that the Problem-Based Learning model is effective in enhancing student learning outcomes across cognitive, affective, and psychomotor domains. Sari's research (2020) also shows that the application of the Problem-Based Learning (PBL) model improves the learning outcomes of grade V students, with an average increase of 75%. In addition, PBL can also improve critical thinking skills in elementary school students by allowing for a variety of solutions and avoiding simple answers (Smith dkk., 2023). Consistent with the study by Setyono dkk., (2018) the Problem-Based Learning model significantly impacts the critical thinking skills and learning outcomes of fourth-grade elementary school students in Social Studies.

Based on the description above, that this class action research as a whole the criteria for teacher and student activity and analysis of learning outcomes tests from pre-cycle, cycle I, and cycle II have increased and have reached the specified indicators. hus, it is evident that the Problem-Based Learning model effectively enhances student learning outcomes in social studies for fifth-grade students at SD INPRES 3 Talise

CONCLUSION

Based on the results of the analysis of this action researcher it can be concluded that the Problem-Based Learning model has been able to improve the learning outcomes of social science (IPS) in fifth grade students of SD Inpres 3 Talise. This is indicated by student activities in cycle I and cycle II which have increased and in the good category to very good, namely 85.29% to 89.70% respectively. While from the results of observations of teacher activities and learning management during cycles I and II as a whole are in the excellent category. Student learning outcomes in the pre-cycle showed an average score of 50.90, then increased in cycle I, namely 63.63 but had not yet reached the KKM, and in cycle II increased to 81.59. In addition, the percentage of completeness has also increased, namely in the pre-cycle of 36.36%, cycle I of 59.09%, and cycle II of 86.36%.

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