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Promoting Active and Effective Learning through the Student Teams-Achievement Divisions Model

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Abstract
This research was motivated by the low achievement of the fourth-grade IPAS learning process and outcomes at SDN 128/II Pasir Putih. This was evidenced by initial observations conducted by the researcher, which revealed that only 38.46% of 26 students achieved a score that met the achievement criteria. This was due to the teacher-centered learning process and the lack of variety in the learning models used by the teachers. The objective of this research was to improve the IPAS learning process and outcomes using the Student Teams Achievement Division model. The research method used in this study was classroom action research. The subjects were 26 fourth-grade students at SDN 128/II Pasir Putih. The research consisted of two cycles. Each cycle consisted of two meetings, each consisting of four stages: planning, implementation, observation, and reflection. This research was conducted in the odd semester of the 2024/2025 academic year at SDN 128/II Pasir Putih. Data was collected through observation, tests, and documentation.The results of the study indicate that the use of the Student Teams Achievement Division (STAD) model can improve the process and learning outcomes of IPAS in grade IV of SDN 128/II Pasir Putih. This can be seen from the increase in teacher observation results in cycle I with an average percentage of 85.42% and in cycle II with an average percentage of 91.67%, categorized as Very Good. The improvement in the learning process of students, in cycle I reached 76.92% in the category of quite good, and in cycle II increased to 92.31% in the category of very good. The increase in student learning outcomes in cycle I reached 65.38% in the category of sufficient, and cycle II reached 88.46% in the category of very good.65.38 % is in the sufficient category, and cycle II reached 88.46% in the very good category. Based on the results it was found that the implementation of the STAD model can help students improve their learning comprehension skills.

Keywords: classroom action research, *Student Teams Achievement Division*, learning process, learning outcomes, IPAS

1. Introduction

The characteristics of IPAS are based on the integration of IPAS and social subjects into a single unit. IPAS is an integrated IPAS that discusses living things, inanimate objects in the universe, and their interactions, as well as human life both as individuals and as social beings related to their environment. (Ministry of Education and Culture, 2022) Nuryani et al. (2023) stated that the implementation of IPAS and natural studies learning in the independent curriculum is carried out in a more concrete and broader manner, following the curriculum's provisions. This learning process provides students with more concrete learning experiences, particularly through group work. IPAS learning aims to build social literacy and study more complex natural and social IPASs. IPAS learning is also oriented towards developing the profile of Pancasila students, such as independence, which is seen when students can complete tasks independently. Based on the explanation of the implementation of IPAS learning in the independent curriculum above, there are differences found by researchers when conducting observations from October 11-18, 2024, in grade IV of SDN 128/II Pasir Putih, in the IPAS subject material on "forces around us". In general, the knowledge, skills, and attitudes that are the process and results of student learning have not yet met expectations. As stated by Prianti in the independent curriculum, learning is more flexible, prioritizing the development of students' essential knowledge and skills that are adjusted to a deeper and more meaningful level of learning, more relaxed, and more enjoyable. However, although the Independent Curriculum emphasizes the importance of student-centered learning, the implementation of IPASs and social studies learning at SDN 128 II Pasir Putih still uses a teacher-centered approach. The applied learning model does not accommodate a variety of methods, creativity, innovation, or elements of fun. As a result, students' concentration is diverted to non-learning activities such as chatting and playing, resulting in low active engagement in the IPAS and social learning process. This condition has implications for the decline of learning outcomes and reflects a misalignment of teaching practices with the Independent Curriculum's goal of creating meaningful, student-centered learning experiences. The following summary of odd semester examination results for the 2024/2025 academic year highlights these problems:

Table 1.

Summary of Odd Semester Examination Results for the 2024/2025 Academic Year

	Student Name	Family Card (KKTP)	Mark	Information
1.	ASA	70	60	NC
2.	ARR	70	78	C
3.	ASP	70	78	C
4.	AZ	70	65	NC
5.	ASR	70	60	NC
6.	AH	70	60	NC
7.	THERE IS	70	60	NC
8.	IN	70	80	C

	Student Name	Family Card (KKTP)	Mark	Information
9.	DTS	70	68	NC
10.	FDZ	70	60	NC
11.	FAM	70	60	NC
12.	FZT	70	68	NC
13.	FKA	70	67	NC
14.	MD	70	60	NC
15.	MR	70	60	NC
16.	MR	70	78	C
17.	MZ	70	70	C
18.	RR	70	60	NC
19.	SFN	70	75	C
20.	SAG	70	67	NC
21.	S	70	65	NC
22.	SNA	70	78	C
23.	VFA	70	78	C
24.	WP	70	80	C
25.	WP	70	75	C
26.	J	70	65	NC
Number of Students			**26 people**	
Students Complete (C)			**10 (38.46%)**	
Students Not Completed (NC)			**16 (61.54%)**	

Source: Homeroom teacher of class IV of SDN 128/II Pasir Putih

Based on the summary of Table 1. obtained from the homeroom teacher. The grade IV IPAS exam scores are showing low results, with learning outcomes below the Learning Objective Completion Criteria (KKTP) standard of SDN 128/II Pasir Putih. Of the total 26 students in grade IV, only 10 students achieved KKTP with a percentage of 38.4 %, while 16 other students (61.5%) have not achieved the KKTP.

2. Methods

2.1 Classroom Action Research

The type of research used in this study is Classroom Action Research (CAR). According to Daryanto, Classroom Action Research (CAR) is a type of research conducted by teachers with the aim of solving learning problems in the classroom (Pratiwi et al, 2023). This research includes an assessment of the learning process and outcomes, where teachers are directly involved in classroom research to improve the quality of learning (Parende and Pane, 2020). Utomo et al. (2024) stated that Classroom Action Research (CAR) is a research method that teachers must implement to

enhance students' competency by improving the quality of the learning process in schools and supporting the advancement of education in general. CAR is implemented through four main stages: planning, action, observation, and reflection.

From the several theories above, it can be concluded that Classroom Action Research (CAR) is an approach used by teachers to solve problems related to classroom learning and to improve the teaching and learning process.

Figure 1.
Classroom Action Research Design (Arikunto et al. 2017) .

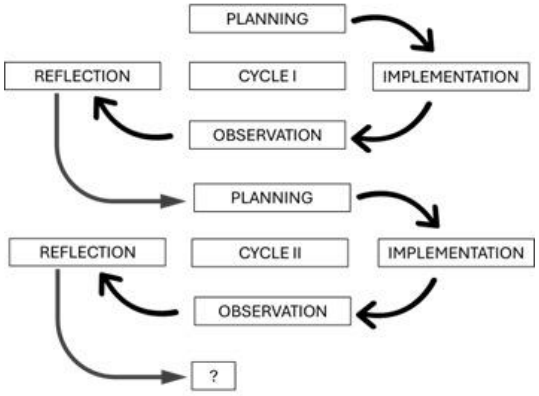


Figure 1 shows the classroom action research model used in this study that runs in two sequential cycles, each through a planning stage to formulate the problem and develop an intervention strategy, implementation of actions in the classroom to implement the plan, observation to collect and record data on the learning process and outcomes, and reflection to analyze the effectiveness of the intervention—where the results of reflection in the first cycle are immediately used as the basis for planning the second cycle, thus creating systematic, continuous feedback to improve the quality of the process and student learning outcomes.

This research was conducted on 26 sixth-grade students of SDN 128/II Pasir Putih in the odd semester of the 2024/2025 academic year. Each cycle consisted of two meetings implementing the Student Teams–Achievement Divisions (STAD) model, where at each meeting, students were grouped heterogeneously to work on Student Worksheets (LKPD) and then present their work results in front of the class. At the end of each cycle, a formative test was conducted to measure student learning achievement in accordance with the Learning Completion Standards (KKTP). The learning process in this study was observed by the homeroom teacher as the main observer and two fellow researchers whose duties were to record and evaluate the implementation of the intervention and the dynamics of student learning.

2.2 Student Teams–Achievement Divisions (STAD)

The Student Teams–Achievement Divisions (STAD) model was developed by Robert Slavin as one of the simplest cooperative learning models, emphasizing collaboration in small, heterogeneous groups to achieve shared learning goals. In STAD, the teacher presents material in a classroom setting, and then students are divided into four- to five-member teams selected based on differences in academic ability, gender, and ethnicity to help each other master the concepts taught. 2 After the group session, students take individual quizzes without the assistance of their team members, and their score improvement compared to their previous average is used as the basis for awarding points to each member; the accumulation of team points then determines awards or certificates, which are given as a positive competitive stimulus. With key components of class presentations, teamwork, individual quizzes, individual accountability, and team recognition, STAD combines intrinsic and extrinsic motivation to maximize student engagement and ensure each member is accountable for the learning process and outcomes.

3. Results and Discussion

3.1. Research results

Classroom Action Research conducted at SDN 128/II Pasir Putih, on the material of Chapter 6 "My Indonesia is rich in culture" was carried out in 2 learning cycles, cycle I discussed topic B: Indonesian Cultural Wealth and Cycle II discussed Topic C: Benefits of diversity and preserving cultural diversity. Each cycle of classroom action research consists of 4 stages, namely, planning, action, observation, and reflection. The implementation of IPAS learning using the *Student Teams Achievement Division model* in cycle I was carried out for 2 meetings, namely on April 28 and 29, 2025. Cycle II was carried out for 2 meetings, namely on May 5 and 6, 2025.

The description of the implementation of research in the learning process of cycle I and cycle II is as follows:

Cycle I

Cycle I consists of four stages of activity: planning, implementation, observation, and reflection. The following are the results of the classroom action research implementation to improve the process and outcomes of science learning using the STAD model for sixth-grade students at SDN 128/II Pasir Putih. The sequence is as follows:

Planning

In the planning stage carried out by researchers before the learning process aims to ensure that the learning that will be implemented runs smoothly. The planning carried out by researchers in cycle I meeting I begins with Determining the subject matter, in this cycle I the subject matter to be discussed is CHAPTER 6 My Indonesia is Rich in Culture, Topic B: the richness of Indonesian Culture. Educators then Prepare learning Modules with the Student Teams Achievement Division (STAD) learning model , Prepare student worksheets LKPD as a learning aid. In addition, educators Prepare observation sheets for educators and students in the learning process which will later be given to the class teacher and colleagues which are used to observe or

assess the activities of educators and students during the learning process. As well as educators also Prepare validated IPAS learning outcome test instruments to be given to students.

a. Implementation/Action

Cycle I-Meeting 1 (April 28, 2025)

Topic: Indonesian Cultural Wealth

a) Initial Activities: The teacher greeted the students, led prayers, checked attendance, and sang national songs to build nationalism. A short review of the previous lesson was conducted as an apperception activity.

b) Core Activities: The teacher explained the objectives and benefits of learning about Indonesia's cultural diversity. Students explored examples of traditional clothes, foods, and houses from various provinces through their textbooks. They were then divided into heterogeneous groups to complete worksheets (LKPD) based on materials taken from a "Mystery Box." Each group collaborated, presented their findings to the class, and received feedback and assessment from the teacher.

c) Final Activities: A student summarized the lesson. The teacher reinforced key points, gave follow-up reading instructions, and closed the class with a prayer.

Cycle II – Meeting 2 (April 29, 2025).

Topic: Continuation of Indonesian Cultural Diversity

a. Initial Activities: Similar to the first meeting, the teacher opened with greetings, prayer, attendance checking, singing national songs, and recalling previous lessons.

b. Core Activities: The teacher reviewed material from the previous meeting and introduced new provinces' cultural characteristics. Students again worked in groups to complete worksheets based on materials from the Mystery Box, discussed their findings, presented in front of the class, and were assessed.

c. Final Activities: The teacher and students summarized the lesson together, reviewed key points, and prepared for the next topic, "The Benefits of Diversity and Preserving Cultural Diversity," before closing the lesson with a prayer.

b. Observation

The observation stage was carried out during the learning process in cycle I, meeting 1 and meeting 2. At this stage, the researcher was accompanied by 3 observers, namely Mrs. Rika Karlina, S.Pd, as the homeroom teacher of class VI SDN 128/II Pasir Putih, who assessed the researcher's teaching method, Anissa Seinapa, and Widya Novita Sari, as colleagues who assessed the students' learning process during learning process.

1) Observation Results of Teacher Observation Sheet

Table 2

Homeroom Teacher Observation Sheet Cycle I Meeting 1

NO.	Information	Score obtained	Maximum Score	presentation	Criteria
1.	Implemented	20	24	83.33%	Very good
2.	Not Implemented	4	24	16.67%	

Table 3

Homeroom Teacher Observation Sheet Cycle I Meeting 2

NO.	Information	Score obtained	Maximum Score	presentation	Criteria
1.	Implemented	21	24	87.5%	Very Good
2.	Not Implemented	3	24	12.5%	

Observations of teachers in the learning process in cycle I at SDN 128/II Pasir Putih, Rimbo Tengah District, Bungo Regency, meeting 1 and meeting 2 were observed by the homeroom teacher of class IV. The results of teachers' observations in the learning process can be seen from the researcher's ability to manage the class or learning process in class IV using the STAD model. Based on table 2, it can be seen that the teaching process of teachers in cycle I meeting 1 is categorized as good, with a score of 20 points achieved from a maximum score of 24 points with an overall percentage of 83.33%, while 4 points from a maximum score of 24 points with a percentage of 16.67% were not implemented. Then, in table 3, it can be seen that the teaching process of teachers in cycle I meeting 2 is categorized as very good, with a score of 21 points from a maximum score of 24 points with an overall percentage of 87.5%, while 3 points from a maximum score of 24 points with a percentage of 12.5%.

2) Results of observations on student observation sheets

Based on the results of observations of students in cycle I which consisted of 2 meetings, observed by observers who were researcher's colleagues, observes all learning processes carried out by students in the classroom showing that learning activities by applying the STAD model in IPAS learning in class IV SDN 128/II Pasir Putih, the results of observations made by observers can be seen in the following table:

Table 4

Student Observation Sheet Cycle I Meeting I

NO.	Scale	Number of students	Presentation	criteria

1.	81%-100%	2	7.69%	Very good
2.	71%-80%	13	50%	Good
3.	61%-70%	7	26.92%	Enough
4.	41%-60%	3	11.54%	Not enough
5.	0%-40%	1	3.85%	Very less
	Achieved	15	57.69%	
	Not achieved	11	42.31%	Not enough

Table 5
Student Observation Sheet Cycle I Meeting II

NO.	Scale	Number of students	Presentation	criteria
1.	81%-100%	4	15.38%	Very good
2.	71%-80%	14	53.85%	Good
3.	61%-70%	5	19.23%	Enough
4.	41%-60%	3	11.54%	Not enough
5.	0%-40%	0	0%	Very less
	Achieved	18	69.23%	
	Not achieved	8	30.77%	Enough

Based on table 4 shows that of the 26 students of class VI SDN 128/II Pasir Putih, there are 2 students in the very good category with a percentage of 7.69 %, 13 students in the good category with a percentage of 50%, 7 students in the sufficient category with a percentage of 26.92%, 3 students in the less category with a percentage of 11.54%, and 1 student in the very less category with a percentage of 3.85%. So there are 15 students in the ≥ good category with a percentage of 57.69 %, but there are still 11 students whose learning process is still not optimal. Table 5. shows that of the 26 students in class VI of SDN 128/II Pasir Putih, there are 4 students in the very good category with a percentage of 15.38 %, 14 students in the good category with a percentage of 53.85%, 5 students in the sufficient category with a percentage of 19.23%, and 3 students in the less category with a percentage of 11.54%. So there are 18 students in the ≥ good category with a percentage of 69.23%.

3) Student learning test results

This test is intended to measure the level of students' understanding of learning in Cycle I by applying the model STAD in grade IV of SDN 128/II Pasir Putih. A summary of the test results for grade IV students is presented as follows:

Table 6

Range Mark Results Cycle I evaluation test

No.	Range Mark	Amount Participant Educate	Information	Percentage (%)
	N ≥ 70	17	Achieved	65.38 %
	N < 70	9	No Achieved	34.62 %

Based on the data from the student learning test results in cycle I, there were 17 students who achieved the learning outcomes with a percentage of 65.38% and there were 9 students who did not achieve the learning outcomes with a percentage of 34.62%. Therefore, the conclusion that can be drawn is that the implementation of learning in cycle I has not been successful. Thus, the results of the learning test in cycle I have not met the indicators for the success of classroom action research; therefore, it is continued with cycle II research.

c. Reflection

After carrying out actions in the learning process, researchers and teachers conducted reflections to analyze the achievement of the actions that had been carried out in order to improve them in the next action. From the results of implementing actions in cycle I, it was found that the learning of IPAS using the *student theme achievement division model* was quite good, so researchers attempted to implement cycle II by considering the obstacles that emerged in cycle I. This was based on learning outcomes, the teacher process, and the student process. The obstacles that emerged in cycle I were used as a reference for improvements in cycle II. Some problems that emerged during the implementation of the actions were as follows:

1) Teachers do not take attendance at the start of learning
2) Teachers only ask students to look at textbooks, but do not ask students to do literacy.
3) Teachers do not ask students to listen to the teacher's explanation of the material.
4) Teachers do not provide sufficient guidance to students in group activities, so there are still some students who carry out activities outside of learning.
5) The teacher does not provide re-emphasis regarding the material that has been studied.
6) The results of the first cycle test showed that students had not fully understood the material.

The researcher's solution to this problem is as follows: following:

1) Teachers must take attendance to find out which students are absent. Attendance is also useful for training discipline in terms of attendance.

2) Teachers must ask students to read books so that students have an initial understanding before listening to further explanations from teachers.

3) Teachers must ask/attract students' attention to listen to the explanation of the material.

4) Teachers must be more intensive in guiding students in groups with a method that helps in understanding the task that will be carried out, so that students who are still passive during discussions can play an active role in their groups.

5) Teachers must provide re-emphasis regarding the lesson material so that students can clearly understand the material.

6) The teacher tries to replace group members.

2. Cycle II

The implementation of this classroom action was carried out in 2 cycles to determine how to improve the process and learning outcomes of IPAS learning for class IV of SDN 128/II Pasir Putih using the STAD model. Cycle II is an improvement activity in Cycle I. The implementation of cycle II was carried out because it had not achieved maximum results and had not reached the success target set by the researcher, namely, increasing the learning process and outcomes of students, and there were several reflections that the researcher had to improve in cycle II. The series is as follows:

a. Planning

In general, the planning stage carried out in cycle II is the same as the planning stage carried out in cycle I. Based on the reflection carried out in cycle I, there are several stages that need to be added in the planning of cycle II. The planning carried out by the researcher in cycle II, meeting I, begins with determining the subject matter, in cycle I, with the material CHAPTER 6 "My Indonesia is Rich in Culture", topic C: Benefits of diversity and preserving cultural diversity. Teachers then prepare learning modules with the STAD learning model, prepare student worksheets (LKPD) as a learning aid. In addition, teachers prepare observation sheets for teachers and students in the learning process, which will later be given to the homeroom teacher and the researcher's colleagues. These will be used to observe or assess the activities of teachers and students during the learning process. The researcher also prepared validated IPAS learning outcome test instruments to be given to students.

b. Action

1) Cycle II Meeting I

Topic: The Benefits of Diversity and Preserving Cultural Diversity

a) Initial Activities: The teacher began the lesson with greetings, prayers, attendance checks, and national songs to build students' nationalism. The teacher then reviewed the previous lesson as an apperception activity.

b) Core Activities: The teacher introduced the objectives of learning about the importance and benefits of Indonesia's cultural diversity and efforts to preserve it. Students explored the topic through reading and discussion guided by the teacher's explanation. They were divided into heterogeneous groups to complete worksheets (LKPD) based on materials taken from the Mystery Box. Each group collaborated, presented their results to the class, and received feedback and assessments from the teacher.

c) Final Activities: The teacher and students summarized the lesson together, emphasized key points, reminded students to study at home, and ended the class with a prayer.

2) Cycle II Meeting II (May 6, 2025)

Topic: Applying Tolerance and Respect for Cultural Diversity

a) Initial Activities: Similar to the first meeting, the teacher opened the lesson with greetings, prayer, attendance checking, and singing to build enthusiasm and nationalism, followed by a review of previous material.

b) Core Activities: The teacher explained the learning objectives, focusing on fostering students' attitudes of tolerance and respect toward cultural diversity. Students read related textbook materials, discussed examples of cultural respect, and worked in groups to complete the LKPD based on assigned topics. Each group presented their work, while other groups assessed and responded. The teacher provided evaluations and recognition for their performance.

c) Final Activities: The teacher and students concluded the lesson by summarizing the key points, giving reinforcement about the topic, assigning home study, and ending the session with a collective prayer.

c. Observation

The observation stage was carried out during the learning process in cycle II, meeting 1 and meeting 2, by applying the STAD learning model. At this stage, the researcher was accompanied by 3 observers: the homeroom teacher of class VI SDN 128/II Pasir Putih, who assessed the researcher's teaching method, the researcher's colleague, who assessed the students' learning process during learning process.

1) Observation Results of Teacher Observation Sheet

During the learning process, the teacher's teaching process was observed by an observer, namely the fourth-grade homeroom teacher of SDN 128/II Pasir Putih, Mrs. Rika Karlina, S.Pd. The activities carried out by the teacher during the learning process influenced the students' understanding of the material. The results of the observations made by the observer regarding the teacher's teaching process during the learning process can be seen in the table below:

Table 7

Teacher Observation Sheet Cycle II Meeting 1

NO.	Information	Score obtained	Maximum Score

				presentation	Criteria
1.	Implemented	21	24	87.5%	Very Good
2.	Not Implemented	3	24	12.5%	

Table 8
Teacher Observation Sheet Cycle II Meeting 2

NO.	Information	Score obtained	Maximum Score	presentation	Criteria
1.	Implemented	23	24	95.83%	Very Good
2.	Not Implemented	1	24	4.17%	

The results of the teachers' observations in the learning process can be seen in the researcher's ability to manage the class or learning process in class IV using the STAD model. Based on table 7, it can be seen that the teaching process of teachers in cycle II meeting 1 is categorized as very good, with a score of 21 points achieved from a maximum score of 24 points with an overall percentage of 87.5%, while those not achieved were 3 points from a maximum score of 24 points with a percentage of 12.5%. Then, in table 8, it can be seen that the teaching process of teachers in cycle II meeting 2 is categorized as very good, with a score of 23 points from a maximum score of 24 points with an overall percentage of 95.83%, while those not achieved were 1 point from a maximum score of 24 points with a percentage of 4.17%.

2) Results of observations on student observation sheets

Based on the results of observations of students in cycle II which consisted of 2 meetings, colleagues observers observed all learning processes carried out by students in the class showing that learning activities by applying the STAD model in IPAS learning in class IV SDN 128/II Pasir Putih, the results of observations made by observers can be seen in the following table:

Table 9.
Student Observation Sheet Cycle II Meeting 1

NO.	Scale	Number of students	Presentation	criteria
1.	81%-100%	9	34.62%	Very good
2.	71%-80%	12	46.15%	Good
3.	61%-70%	3	11.54%	Enough

4.	41%-60%	2	7.69%	Not enough
5.	0%-40%	0	0%	Very less
	Achieved	21	80.77%	
	Not achieved	5	19.23%	Good

Table 10.
Student Observation Sheet Cycle II Meeting 2

NO.	Scale	Number of students	Presentation	criteria
1.	86%-100%	11	42.31%	Very good
2.	70%-85%	13	50%	Good
3.	50%-69%	2	7.69%	Enough
4.	20%-49%	0	0%	Not enough
5.	0%-19%	0	0%	Very less
	Achieved	24	92.31%	Very
	Not achieved	2	7.69%	good

Based on table 9 shows that of the 26 students of class VI SDN 128/II Pasir Putih, there are 9 students in the very good category with a percentage of 34.62%, 12 students in the good category with a percentage of 46.16%, 3 students in the sufficient category with a percentage of 11.54%, and 2 students in the less category with a percentage of 7.69%. So, there are 21 students in the ≥ good category with a percentage of 80.77 %, but there are still 5 students whose learning process is not optimal. Table 10 shows that of the 26 students of class VI SDN 128/II Pasir Putih, there are 11 students in the very good category with a percentage of 42.31%, 13 students in the good category with a percentage of 50%, and 2 students in the sufficient category with a percentage of 7.69%. So there are 24 students in the ≥ good category with a percentage of 92.31 %.

3) Student learning test results

This test is designed to assess the level of students' understanding of learning in Cycle II by applying the STAD model in grade IV of SDN 128/II Pasir Putih. A summary of the test results of grade IV students is presented as follows:

Table 11
Range Mark Results Study Cycle II

o.	**Range Mark**	**Amount Participant Educate**	**Information**	**Percentage (%)**

N ≥70	23	Achieved	88.46 %
N < 70	3	No Achieved	11.54 %

Based on the data from the student learning test results in cycle I, there were 23 students who completed the course with a percentage of 88.46% and there were 3 students who did not complete it with a percentage of 11.54%. Therefore, the conclusion that can be drawn is that the implementation of cycle II learning has been successful. This is proven by the results of the learning tests obtained by students.

d. Reflection

Based on the results of observations with the homeroom teacher of class IV, namely Mrs. Rika Maulina, S.Pd, it was concluded that the reflection stage aims to review what was obtained from the research, examine the shortcomings and advantages in research and find problems in research, and look for solutions to be implemented.

Based on the results of Cycle II of research, it can be seen that the IPAS learning using the *student teams achievement division learning model* achieved success in terms of learning outcomes, the teacher's process, and the student's process. This can be seen from the significant increase based on from reflections and solutions in the previous cycle, such as teachers asking students to note down material before being given group assignments, teachers guiding students well during the learning process so that almost all participant educate enthusiastic And active in follow learning activities, and with the presence of ice breaking, learning is not boring. Even though there are improvements, there is an aspect you need to pay attention to, such as students who are still not conducive when working on group tasks and suggestions given to the researcher teachers provide directions to students so that students can control themselves while working on group assignments.

The implementation of learning in cycle II has achieved the goal set by the researcher, namely, improving the learning process and outcomes. Furthermore, the implementation of learning using the *student teams achievement division model* can improve the learning process and outcomes of fourth-grade students at SDN 128/II Muara Bungo. Therefore, the implementation of actions in cycle II no longer requires any reflection or suggestions for the implementation of the next cycle, or in other words, this research can be stopped in cycle II.

3.2.Discussion

This classroom action research includes 2 cycles, consisting of cycle I and II. Each cycle consists of 2 meetings and consists of planning, action, observation, and reflection stages. Implementation of cycle II is an improvement over cycle I. Based on the results of the research cycle I and cycle II conducted in class IV SDN 128/II Pasir Putih, Rimbo Tengah District, Bungo Regency, it is known that applying the STAD learning model can improve the process and learning outcomes of students in the subject of IPAS. The results obtained in this study consist of observation data in the form of teacher observation sheets and student observation sheets, and

evaluation test questions during the implementation of IPAS learning. This improvement can be seen from the results of the tests given at the implementation and at the end of each cycle I and cycle II, as well as the results of observations during the learning process using the STAD learning model.

1. Results of Teacher Observation Sheets in Cycles I and II

The success of students in learning is due to the existence of management of the implementation of learning carried out by the teacher. This seen improvement from cycle I to cycle II, can be seen in table 12 and diagram 1 as follows:

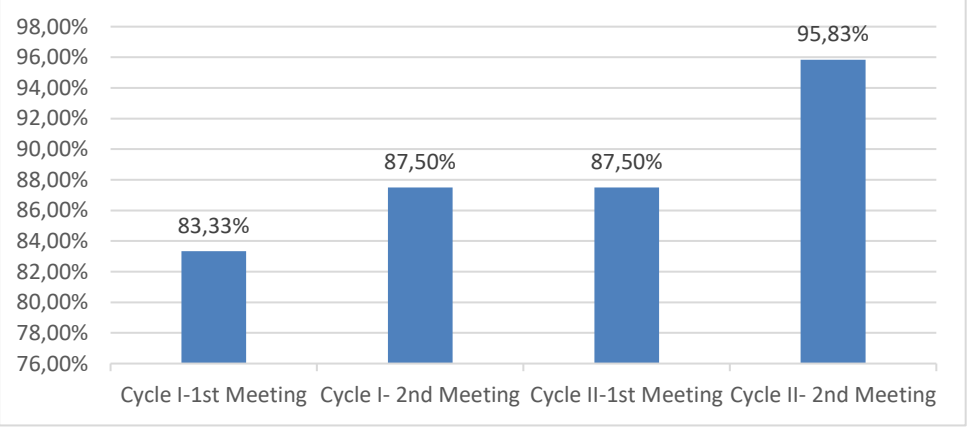
Table 12

Recapitulation of Percentage of Teacher Observation Sheets for Cycles I and II

No	Activity	Percentage Value		Average value	Category
		Meeting			
		I	II		
1	Cycle I	83.33%	87.5%	85.42%	Good
2	Cycle II	87.5%	95.83%	91.67%	Very good

Figure 2

Recapitulation of Percentage of Teacher Observation Sheets for Cycles I and II



Based on diagram 4.1, the comparison of the teaching process of teachers observed by the main observer cycles I and II shows an improvement. The teaching process of teachers has improved. If the percentage in cycle I meeting 1 was 83.33%, in cycle I meeting 2 it increased to 87.5%, and in cycle II meeting 1 it was 87.5%, in cycle II meeting 2 it increased to 95.83% or in the criteria of very good completion. This improvement shows that teachers have been able to implement IPAS learning using the STAD model as expected. Where teachers always see the results of observations assessed by observers at the end of the learning implementation, so that the researcher's shortcomings are known during the learning process, so that similar errors do not occur for the next meeting. Improvement in the process of teachers in IPAS learning using the STAD

model has an impact on student learning outcomes. Teachers divide groups heterogeneously; this can certainly enliven group discussions, and giving rewards can provide enthusiasm for learning for students. The desire to answer questions from teachers is seen in the enthusiasm of students. The STAD type learning model is a cooperative type that emphasizes activities and interactions between students to motivate and help each other in mastering the subject matter in order to achieve maximum achievement (Yunisara et al. 2018).

2. Results of Student Observation Sheets for Cycles I and II

Individual student success in learning can also be seen from the learning process, namely by using student observation sheets observed by peers. In this case, an improvement is seen from cycle I to cycle II, as can be seen in Table 13 and Diagram 2 below:

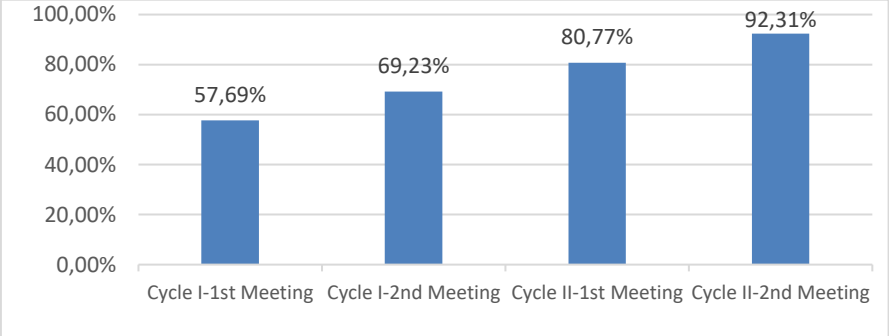
Table 13

Recapitulation of Percentage of Student Observation Sheets for Cycles I and II

No	Activity	Percentage Value		Average value	Category
		Meeting			
		I	II		
1	Cycle I	57.69%	69.23%	63.46%	Enough
2	Cycle II	80.77%	92.31%	86.54%	Good

Figure 3

Recapitulation of Percentage of Student Observation Sheets for Cycles I and II



Based on diagram 4.2, it can be seen that the comparison of the student learning process observed by colleague observers, in cycle I, meeting I, there was 57.69%, cycle I, meeting II, there was 69.23%, and in cycle II, meeting I, there was 80.77%, cycle II, meeting II, there was 92.31%. It can be concluded that the implementation of learning using the STAD model has increased from cycle I to cycle II, with an average value of 63.46 % to 86.54%. This increase in learning implementation occurs because teachers divide groups heterogeneously. This can certainly enliven group discussions, and giving rewards can provide enthusiasm for learning for students. The desire to answer questions from teachers is seen in the enthusiasm of students. This aligns with relevant research by Kahlida (2016) and Nur Samsu et al (2019), which suggests that implementing the

Student Teams Achievement Division learning model can enhance the learning process for students. Students have started to pay attention when the teacher explains the material, students have started to dare to answer questions that the teacher gives, and students have been active in group discussions.

3. Results of Student Learning Tests for Cycles I and II

The data obtained during cycle I showed that the percentage of students' learning completion reached 65.38 %, while in cycle II, the percentage of students' learning completion reached 88.46%. The following table and diagram summarize the results of the final test of students' IPAS learning in cycles I and II using the STAD model.

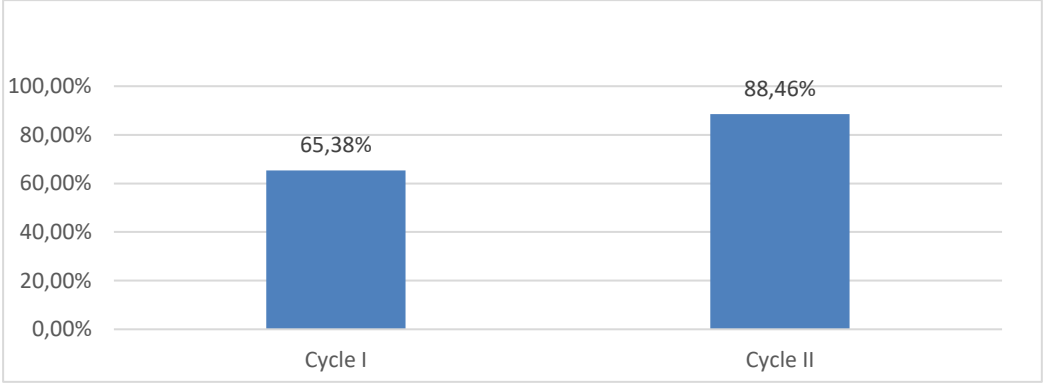
Table 14

Recapitulation of Percentage Results of Learning Tests for Grade IV Students, Cycles I and II

No.	Implementation of Action	Achievement		Achievement	
		Achieved	Not achieved	Achieved	Not achieved
1.	Cycle I	17	9	65.38%	34.62%
2.	Cycle II	23	3	88.46%	15.38%

Figure 4

Recapitulation of Percentage Results of Student Learning Tests in Cycles I and II



Based on diagram 3, it can be concluded that learning using the STAD learning model can improve students' learning outcomes in the subject of IPAS in grade IV of SDN 128/II Pasir Putih. In line with research that STAD learning is a straightforward cooperative learning model that can enhance activities, learning outcomes, and student responses (Kaharuddin & Liasambu, 2019; Mardizal & Tarmizi, 2021; Sudana, 2024). This increase can be seen from the comparison of test scores before and after the application of the STAD model, where the average student score experienced a significant increase in each cycle. To conduct a comprehensive evaluation, it is necessary to carry out a curriculum evaluation to achieve a broader and deeper scope in measuring the effectiveness of the learning process (Natalia, et al. 2023).

4. Conclusion

Based on the results of Classroom Action Research (CAR), which was carried out in two cycles to improve the process and results of learning IPAS using the STAD learning model for fourth-grade students at SDN 128/II Pasir Putih, the researcher can draw several conclusions as follows:

1. The application of the STAD learning model can improve the IPAS learning process in class IV of SDN 128/II Pasir Putih, Rimbo Tengah District, Bungo Regency was well experienced an increase in cycle I and cycle II. The results of teacher observations in cycle I with an average percentage of 85.42 % and in cycle II, with an average percentage of 91.67% with the Very Good category. The results of student observations in the IPAS learning process in cycle I with an average percentage of 63.46 % and in cycle II with an average percentage of 86.54% with the Very Good category.
2. The application of the STAD learning model can improve the learning outcomes of IPAS in grade IV of SDN 128/II Pasir Putih, Rimbo Tengah District, Bungo Regency. This can be seen from the percentage and completeness of students. In cycle I, the number of students who completed was 17 students and in cycle II reached 22 from a total of 26 students. The percentage achieved in cycle I was 65.38 % and increased in cycle II to 84.62%.

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