

Practice Rehearsal Pairs Strategy: Student Learning Outcomes in the IPAS Subject at Primary Schools

Rini Mustika¹, Muhammad Akmansyah², Yuli Yanti³

^{1,2,3} Pendidikan Guru Madrasah Ibtidaiyah, Universitas Islam Negeri Raden Intan Lampung, Indonesia

Article Info

Article history:

Received August 05, 2025

Revised September 23, 2025

Accepted September 26, 2025

Keywords:

IPAS Subject;
Learning Outcomes;
Practice Rehearsal Pairs;
Primary Schools;
Strategy.

ABSTRACT

The intent of this study is to determine the process of improving student learning outcomes through the practice rehearsal pairs strategy in elementary school students. This type of research uses classroom action research. The subjects in this study were teachers and fifth-grade students, with a total of 20 fifth-grade students at Primary School 2 Ratu Abung, North Lampung. Data collection techniques used tests, observation, and documentation. The data analysis used a quantitative description. The study found that using the practice rehearsal pairs strategy learning model (paired practice) to improve student learning outcomes in IPAS can be seen in two ways: the teacher, in the cycle I to cycle II teachers who use the practice rehearsal pairs strategy learning model (paired practice). The analysis reveals that learning activities in Cycle I are dynamic. In cycle. Eight students are not good (46.66%), four are good (33.34%), five are good (10%), and three are excellent (10%). Cycle II has 5 outstanding pupils (16.66%) and 15 forceful students (81%). In the practice rehearsal pairs strategy learning model from cycle I to cycle II, student enthusiasm and activity always increase, as shown by observations and tests of student learning outcomes, so learning can run smoothly and conductively and achieve learning objectives.

Copyright © 2025 ETDCI.
All rights reserved.

Corresponding Author:

Rini Mustika,
Pendidikan Guru Madrasah Ibtidaiyah, Universitas Islam Negeri Raden Intan Lampung, Indonesia
Email: riniustika170301@gmail.com

1. INTRODUCTION

Elementary school education aims to lay the foundations of knowledge, skills, and attitudes necessary for students to progress to the next level of education (Moss, 2019). Natural and Social Sciences (IPAS) is one of the main subjects that is now taught in an integrated way (Surul & Septiliana, 2023; Komariah et al., 2023; Desstya et al., 2024). The subject is important because it influences students' understanding of the natural and social environment, fostering critical thinking, observation, and problem-solving skills (Andreani & Gunansyah, 2023; Safira et al., 2024; Susilowati et al., 2025).

Nonetheless, the implementation of IPAS learning in elementary schools frequently encounters obstacles (Hardiansyah & Hidayatillah, 2022; Ubaidillah et al., 2025). The dominant teaching methods are still conventional (lectures or assignments), which tend

to make students passive and less engaged and make it difficult to grasp abstract concepts, ultimately resulting in low student learning outcomes. These low learning outcomes are reflected not only in cognitive test scores but also in students' lack of ability to apply IPAS knowledge in everyday life (Maulidiyah & Jamhari, 2025; Kause et al., 2025).

One of the main challenges faced by elementary schools is low student learning outcomes caused by passive learning methods (Luthfiah et al., 2025), such as lectures and memorization, which result in students becoming passive listeners and less engaged in the learning process. As a result, students' interest in learning declines, and their understanding of the material is suboptimal. Effective learning should actively engage students, both physically and mentally, so they can understand and internalize the concepts taught (Pelley, 2014; Chew & Cerbin, 2021). Today's students face a world of vast knowledge, rapid change, and uncertainty; they can feel anxious and pretend to defend themselves. Abraham Maslow taught us that humans have two sets of forces or needs: one that seeks growth and the other that tends toward security (Acevedo, 2018; Navy, 2020). People faced with these two needs will choose security over growth.

One of the primary ways to achieve a sense of security is to connect with others and be part of a group (Feigenbaum, 2024). This sense of belonging enables students to face challenges. When they learn with friends, rather than alone, they receive emotional and intellectual support that allows them to push beyond their current knowledge and skill levels. Working with students in groups and giving them tasks that require them to rely on each other is a wonderful way to tap into students' social needs. They tend to be more engaged in learning activities because they are working with friends. Once engaged, they also immediately feel the need to discuss their experiences with their friends, leading to further relationships.

Indonesia's low learning outcomes contribute to its poor education quality. According to the 2018 PISA education quality survey, Indonesia placed 74th out of 79 nations, the sixth lowest in the world (Luthfi et al., 2025). The independent learning curriculum requires educators to use various learning strategies, so students' IPAS learning outcomes were still low during the November pre-research. Additional data came from documentation studies and interviews with 5th grade teachers at primary school 02 Ratu Abung, North Lampung. For example, educators utilized various learning methods and media. The learning methodologies were less relevant to the students' conditions. Such practices kept students' learning outcomes poor.

A 5th grade teacher at Primary School 2 Ratu Abung conducted preliminary study research, revealing the cognitive learning results of IPAS from mid-semester summative assessment data for grade IV. Based on daily summative data from grade V students at Primary School 02 Ratu Abung in North Lampung, 12 students from class A and 7 from class B did not reach the Qualified Minimum Competency Level. Out of 31 grade V students at Primary School 02 Ratu Abung, North Lampung, 19 did not meet the minimum completion criteria. Thus, IPAS cognitive learning outcomes in grade V at Primary School 02 Ratu Abung, North Lampung, are still low.

Therefore, innovative learning strategies are needed that can increase active student participation, social interaction, and in-depth conceptual understanding. The Practice Rehearsal Pairs Strategy is one possible way for students to work together to solve this problem (Uska, 2017; Wiwin et al., 2021; Sikabe & Baderiah, 2024). This strategy is designed to facilitate learning by emphasizing paired practice and repetition of material (rehearsal), allowing students to test, explain, and correct each other's understanding (Sholihah, 2018; Pambudi & Budiman, 2019; Satika et al., 2022). Through this interaction, it is expected that the understanding of IPAS concepts will be strengthened, memory will improve, and overall student learning outcomes can be significantly improved. This study focuses on the application of the Practice Rehearsal Pairs strategy in the context of IPAS learning in elementary schools, with the aim of empirically and in-depth testing the extent to which this strategy is effective in improving students' cognitive and/or psychomotor learning outcomes.

Although other cooperative learning strategies such as Think Pair Share have been extensively researched, research explicitly and in-depth examining the implementation and effectiveness of Practice Rehearsal Pairs in elementary school science (IPAS) is still limited. IPAS is a new integrated subject with unique material characteristics (a combination of science and social sciences), requiring effective strategies to bridge the two domains (Surul & Septiliana, 2023). This study offers novelty by focusing on adapting and optimizing the Practice Rehearsal Pairs steps for IPAS material. Practice Rehearsal Pairs emphasizes active repetition (rehearsal) and active recall through paired testing mechanisms. The novelty of this study is that it presents specific empirical evidence on how these mechanisms directly contribute to improved IPAS learning outcomes, particularly in concept mastery and short- and long-term information retention, which distinguishes it from general cooperative research.

This research directly contributes to efforts to develop learning models aligned with the demands of the Independent Curriculum, which encourages more meaningful, student-centered, and project- or activity-based learning. The results can serve as practical guidance for elementary school teachers in adopting innovative learning strategies proven effective in improving the quality of IPAS instruction, an essential subject in the new curriculum. The next study will confirm or strengthen earlier findings that the Practice Rehearsal Pairs learning technique improves learning outcomes for grasping instructors' classroom strategies.

2. METHOD

This research method uses Classroom Action Research (CAR). Continuous educational development demands improvements in teaching and learning practices in the classroom. Teachers, as the primary agents in the educational process, need to develop effective strategies and approaches to improve the quality of student learning. In this effort, classroom action research (CAR) has become a popular and effective approach to addressing the challenges faced by teachers in the classroom. However, to effectively implement CAR, teachers need to understand relevant theories and research in education. This research was conducted at Primary School 2 Ratu Abung, North

Lampung. The participants consisted of teachers and 20 fifth-grade students during the 2024/2025 academic year. The object of this research was the application of the paired practice strategy to improve students' cognitive learning outcomes in IPAS at Primary School 2 Ratu Abung, North Lampung. The framework of the classroom action research is presented in Figure 1.

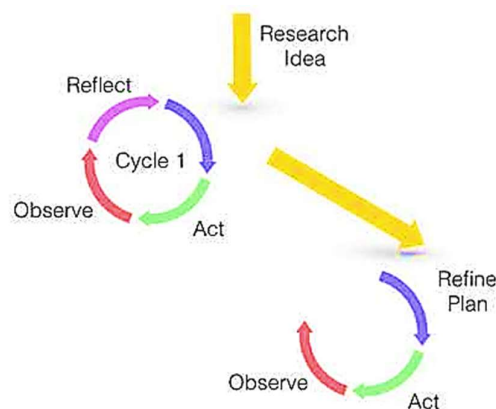


Figure 1. Classroom Action Research Design

Data collection was used for analysis of the research conducted. Data collection techniques are the most important step in research, because the primary goal is to obtain data. Without understanding data collection techniques, researchers will not obtain data that meets established data standards. Data collection techniques are the most important step in research, because the primary goal is to obtain data.

1. Tests

A test is an instrument in the form of a series of questions, worksheets, or similar items used to measure the knowledge, skills, abilities, and talents of research subjects. The test instrument includes questions that are made up of various items.

2. Observation

Observation is a data collection technique used when researchers are concerned with human behavior, work processes, and natural phenomena, and when the number of respondents being watched is not too large. This observation method is carried out by the researcher as the implementer of learning activities, using the Paired Practice Strategy (Practice) to improve learning outcomes in the IPAS subject at Primary School 2 Ratu Abung, North Lampung.

3. Documentation

Documentation is an activity or process of providing various documents using accurate books based on records from various sources. Furthermore, documentation is understood as the effort to record and categorize information in the form of writing, photographs/images, and videos. Researchers use this documentation method to obtain data in the form of materials about the research subject's condition or situation. Observation activities encompass a variety of complex factors, including attitudes, behaviors, environmental settings, and various other aspects involved in an activity.

Data analysis techniques are carried out when the required data has been collected. Data analysis can be carried out. Meanwhile, based on data analysis, there is the possibility of discovering new problems that require new data. This analysis has the potential to yield several alternative decisions. We collect results through observation, documentation, and testing. The implementation of the action in this study consists of two cycles. Each cycle consists of three meetings, each using the planning, action, observation, and reflection stages. In the planning stage, we prepare the learning tools needed for the learning process, including observation sheets and tests. The action stage in this study is carried out according to the steps of the paired practice strategy, from the initial activity to the final activity. The observation stage is carried out simultaneously with the implementation of the action. Meanwhile, the reflection stage is carried out based on the results of observations by observers and researchers. Qualitative data is gathered through observations of student activities and teacher skills, as well as through analysis of the obtained data and documentation. Observation data is analyzed to determine student difficulties during the learning process. Meanwhile, documentation is used to record student activities in the learning process. Quantitative assessments are expressed in five categories, namely very adequate, satisfactory, sufficient, less, and very less, calculating the average value and calculating the percentage. The qualitative descriptive statistical analysis data is presented in percentage form.

This classroom action research aims to improve learning outcomes in fifth-grade IPAS. Classroom action research is considered successful if actions are taken to improve the quality of learning, which will impact student behavior, activities, and learning outcomes. A final grade is considered satisfactory if students achieve classical mastery or at least 85% of the class achieves the minimum completion criteria (Competency Standards). The criterion for achieving learning objectives in IPAS is 75.

Table 1. Outline of the IPAS Subject Test Instrument

No	Competency Indicators (C1–C6)	Cognitive Level	Question Format	Topic/Subtopic
1	Students can identify examples of Biodiversity.	C1 (Remembering)	Multiple Choice (1-4)	Indonesia's Biodiversity
2	Students can explain the function of forests as the lungs of the world.	C2 (Understanding)	Multiple Choice (5-8)	Indonesia's Biodiversity.
3	Students can explain how to wisely utilize Biodiversity resources.	C3 (Applying)	Multiple Choice (9-12)	Indonesia's Geographical Conditions.
4	Students can compare the use of Indonesia's biodiversity resources.	C4 (Analyzing)	Multiple Choice (13-16)	Utilization and Impact of Indonesia's Biodiversity.
5	Assess the importance of preserving endangered living creatures.	C5 (Evaluating)	Multiple Choice (17-20)	Preservation of Threatened Flora/Fauna

3. RESULTS AND DISCUSSION

3.1. Results

The researcher and instructor worked on Classroom Action Research (CAR). This study used practice rehearsal pairs to boost IPAS student learning. In this study, the researcher designed learning and the teacher collaborated. Two-meeting cycles were used for learning. Data from these learning activities determined instructor activities during learning, which were recorded on observation sheets. Tests in Cycles I and II examined student understanding improvements.

Cycle 1

In this stage, the lesson plan was designed and implemented in classroom learning activities. A test was administered at the end of the lesson in the second meeting of Cycle 1. After the test, the teacher implemented the practice rehearsal pairs strategy to improve student learning outcomes.

a. The first Meeting

The learning material was subtheme 6, "Biodiversity," from Lesson 1, "What is My Indonesia?" The material, "My Indonesia is Rich in Biodiversity," was found in the thematic textbook, Chapter 6, Biodiversity, Grade V. The following is a description of the stages of classroom action research, meeting 1 of Cycle 1:

1. Planning

- a) Determining the IPAS learning material, namely "Biodiversity and Biodiversity," was found in the thematic textbook for Grade V, Chapter 6, "Biodiversity and Biodiversity," and the material for the odd semester.
- b) Preparing teaching materials and interactive media in the form of learning videos appropriate to the subject matter to be taught, namely "Biodiversity."
- c) The researcher created instruments in the form of tests, including multiple-choice and essays.
- d) The researcher created observation sheets.

2. Implementation

At this stage, the lesson plan was designed and implemented in classroom learning activities. Learning in Cycle 1 was conducted in two meetings. In cycle 1, the teacher explains the material to be studied according to the lesson plan and uses a pre-prepared model.

a) Initial Activities

The teacher greets students, asks them to pray, and first explains the material to be studied that day. Afterward, the teacher provides appreciation by asking students questions.

b) Core Activities

In the core activities, the teacher explains the material on biodiversity by relating it to everyday life. The teacher directs students to form pairs. One student is given a question paper and another student is given an answer paper. Afterward, each pair takes turns answering the questions according to the teacher's instructions. The teacher then invites the pair to sit down, and so on. Each correct answer receives a round of applause. The teacher and students

then correct any incorrect answers. The pair that answers correctly receives a round of applause.

c) Closing Activities

The teacher and students summarize the material learned. The teacher informs students about the learning activity plan for the next meeting. This will help students understand the material better. The teacher concludes the lesson with a greeting.

3. *Observation*

After the researcher took action, the next step was observation. The following are the results of the observations conducted by the researcher, namely observing the activities of a fifth-grade teacher at Primary school 2 Ratu Abung in the classroom. During the learning process, the teacher had conducted teaching and learning activities using a teaching module. In the first meeting of cycle 1, the teaching and learning activities were still not conducive. The teacher only used textbooks to explain the learning material to fifth-grade students. Learning was still one-way, with only the teacher delivering the material without involving the students. However, when delivering the learning material, the language and intonation used were clear and clear, making the explanations easy for students to understand. However, in this meeting, the teaching and learning process was still less conducive because many fifth-grade students chatted, did not listen to the teacher during the learning process, and some were sleepy. This was because the first meeting of cycle 1 had not yet used learning media.

This demonstrates the researcher's readiness to carry out teaching and learning activities. This is evident in the researcher's preparations prior to conducting the action. The researcher prepared a teaching module before conducting the lesson. In the classroom, the teacher conducted learning activities according to the module. However, during the first meeting of Cycle I, the researcher had not prepared a score sheet or test. This was because, at this stage, the researcher was only conducting teaching and learning activities and discussions with students.

4) *Reflection*

During the learning process, the teacher still lacked control of the class, as evidenced by the large number of students walking around the classroom, chatting with their deskmates, and so on. This lack of control is one factor contributing to the teacher's lack of control, resulting in less active learning. Furthermore, when students were paired up and supposed to come to the front to start a word game, students were busy asking questions, running around, and shouting, wasting time and disrupting the learning process. Therefore, in the first meeting of Cycle I, there are still improvements that need to be made in the next meeting.

b. Second Meeting

The topic covered was "Diversity and Biology," with the same Core Competencies (KD) and the indicator for implementing the concept of "Indonesia is Rich in Biology." The following is a description of the stages of classroom action research in the second meeting of Cycle I:

1) Planning

In this stage, the researcher planned the implementation of the learning process using the practice rehearsal pairs strategy to improve learning outcomes. The steps involved in the planning were:

- a) Determining the topic of Chapter 6, subtheme "Diversity and Biology."
- b) Creating a learning design using the practice rehearsal pairs strategy to improve learning outcomes in the teaching module.
- c) Preparing the learning media needed for the pair practice.
- d) Preparing learning resources in the form of the fifth-grade elementary school IPAS textbook.

2) Implementation

In this stage, the learning plan was designed and implemented in classroom learning activities. The teacher gives a test consisting of 10 essay questions, and students then answer them correctly.

a) Initial Activities

The learning activity begins with the teacher explaining the lesson that will be covered in the lesson.

b) Core Activities

In this core activity, the teacher first explains the material, and students listen to the explanation. Students are given 20 multiple-choice questions and 5 essay questions. After the teacher and students complete the test, the teacher directs students to form pairs. One student is given an answer sheet. Afterward, each pair takes turns answering the questions within the allotted time. If the answer is correct, the teacher invites the pair to sit down, and so on. Each correct answer receives applause. After completion, the teacher asks each pair to explain their answer in turn. The teacher and students then correct any incorrect answers. The pair that answers correctly receives a reward in the form of applause.

c) Closing Activities

At the end of the lesson, the teacher and students summarize the material learned together. The teacher invites students to pray and closes the lesson with a greeting.

3) Observation

In the second meeting of Cycle I, during the observation stage, the researcher found that the classroom teachers were well-prepared for the learning process. This was evident in the teachers' preparation prior to taking any action, indicating that the learning process was in accordance with the teaching module. Observations in this second meeting were better than those in the first meeting of Cycle I, as there was a slight improvement. Students were more enthusiastic and the classroom atmosphere was becoming more conducive. In the second meeting of Cycle L, the practice rehearsal pairs model was implemented to improve learning outcomes. After explaining the lesson material, the teacher immediately invited students to participate in group activities, dividing them into several groups. Initially, students were unsure how to proceed, but

in this meeting, the teacher explained the implementation method. In this cycle, students appeared very happy and enthusiastic in participating in the teaching and learning activities, and the learning process began to progress smoothly. The following are the results of observations conducted by a fifth-grade teacher at the school. These relate to teacher and student learning outcomes in the second meeting of Cycle I, regarding the topic of heat and its transfer.

The classroom actions that can be categorized as having sufficient teacher readiness to carry them out well. This can be proven by the preparation made by the researcher before carrying out an action, having prepared a module for learning. However, at the first meeting of cycle I, the researcher had not prepared a score list and test. This was done because at this stage the researcher only carried out teaching and learning activities and discussions with students. To observe student activities, the following are the results of observations made by the second grade teacher related to student learning activities in IPAS learning related to diversity and biology. The following are the results of fifth-grade students' learning activities in Cycle I:

Table 2. Learning Activity Score Categories in Cycle 1

No	Value	Category	Frequency	Percentage
1	80-100%	Excellent	3	10%
2	70-75%	Good	3	10%
3	45-65%	Fair	10	33,34%
4	20-40%	Poor	4	46,66%

Table 2 reveals that 3 fifth-graders at primary school 2 Ratu Abung scored "very good"—10%. 3 pupils (10%) rated "good." 10 students scored "fair" (33.34%). 46.66% (4 pupils) scored "poor." Below is the proportion of student learning outcomes improved in Cycle I, meeting 1, by using the practice rehearsal pairs learning methodology. The Table above shows that the classroom actions have sufficient teacher preparation to perform well. Before taking action, the researcher prepares a learning module. At Cycle I's initial meeting, the researcher didn't have a score list or test. The researcher only conducted teaching and learning activities and student conversations at this stage. To watch student activities in IPAS learning connected to variety and biology, the second-grade teacher observed the following.

Three of the 20 fifth-graders at primary school 2 Ratu Abung achieved "excellent"—10% of the total. 10% of pupils scored "good" (3). 10 students scored "fair" (33.34%). 46.66% (4 pupils) scored "poor." Looking at the percentage of Cycle I, meeting 1 student learning objectives improved by the practice rehearsal pairs learning methodology. Cycle I showed that fifth-graders' average score was 61.5, below the minimum competency. Only 9 students passed, while 11 scored incomplete. Achievement accomplished 20%, or 80%. In Cycle I, the researcher failed to meet the goals of the classroom action research. Thus, the researcher must proceed to Cycle II.

4) Reflection

The observations and data from Cycle I concentrated on the classroom teacher's model of using a word guessing game for learning. Many shortcomings continued, including a lack of instructor enthusiasm in teaching and learning activities and lesson delivery, which decreased student involvement. Due to the teacher's lack of classroom discipline, several pupils wandered aimlessly, chatted with their deskmates, etc. The teacher's lack of classroom management and topic mastery led to less active learning. Students were asking questions, running around, and shouting when they were due to come to the front to start the word guessing game, wasting time and disturbing instruction. After reflecting on Cycle I, there were still issues that required Cycle II improvements.

Cycle II

After the reflection, Cycle II was implemented with the hope that it would achieve the desired objectives. The stages of Cycle II were the same as those of Cycle I, consisting of: planning, implementation, observation, and reflection.

a. The First Meeting

The planning of actions to be implemented in Cycle II was based on the implementation of Cycle I. However, in this cycle, the teacher focused more on the material and monitored student difficulties. The material in this meeting covered "Diversity and Biology," with the same core competencies as Cycle I, namely:

1) Planning

At this stage, the researcher planned to implement the learning using the practice rehearsal pairs strategy for two meetings. The steps involved in the planning were:

- a) Determining the topic of the diversity and biological material in Cycle II.
- b) Creating a learning design using the practice rehearsal pairs strategy, as illustrated in the teaching module.
- c) Prepare the learning materials needed for pair practice.
- d) Prepare learning resources in the form of a IPAS textbook for fifth-grade elementary school students.
- e) Create a data collection tool, namely an observation sheet format, for teacher activities during the lesson.

2) Implementation

Learning activities in Cycle II were carried out in two meetings. In Cycle II, the teacher explained the material to be studied and then invited students to form groups.

a) Initial Activities

Initial activities consisted of opening the lesson. The teacher first opened the lesson with a greeting, then asked the class leader to lead a prayer before studying together. Afterward, the teacher checked student attendance. Then, the teacher gave students a test to complete.

b) Core Activities

In the core activities, the teacher invited students to observe the pictures in their textbooks. After observing the pictures, the teacher looked at the pictures in their textbooks. The teacher directed students to form pairs. One student was

given a question paper and another student was given an answer sheet. Afterward, each pair took turns answering the questions within the allotted time. If the answer was correct, the teacher invited the pair to sit down again, and so on. Each correct answer was given applause. After completion, the teacher asks each pair to explain their answers in turn. Afterward, the teacher and students correct any incorrect answers. Pairs who answer correctly will receive a reward in the form of applause.

c) Closing Activities

At the end of this lesson, the teacher provides a summary of the learning process and then informs students about the material to be discussed in the next meeting. After the allotted time has elapsed, the teacher closes the meeting with a closing greeting.

3) Observations

The researcher observed that the teacher handled learning activities well and according to the module during Cycle II's second meeting. Clear, strong language makes students more engaged in teaching and learning. In Cycle II's first meeting, the teacher taught IPAS using textbooks and question-and-answer. The instructor knew her stuff well. The teacher engaged pupils in teaching and learning activities to ensure learning. Some kids were playing as the teacher lectured. The teacher instantly chastised and encouraged a child to play while they were still playing. This method made them feel comfortable and engaged, which boosted learning excitement. Teachers delivered learning material in class during cycle II's first meeting.

b. Second Meeting

The topic covered was "Diversity and Biodiversity," with the same core competencies, and the indicator being identifying objects that can conduct heat.

1) Planning

At this stage, the researcher planned a lesson implementation using a paired practice learning model for two meetings. The planning steps were:

- a) Determining the topic, which in Cycle II would be about diversity and biodiversity.
- b) Creating a lesson design using the paired practice model.
- c) Preparing learning resources for the fifth-grade Elementary School IPAS textbook.
- d) Creating a data collection tool, namely a test.

2) Implementation

At this stage, the lesson plan was designed and implemented in classroom learning activities. Learning in Cycle II was conducted in two meetings. In Cycle II, the teacher explained the material to be studied, after which the teacher invited students to participate in group activities by forming pairs.

a) Initial Activities

The teacher distributes the textbooks to be studied in this meeting. The teacher informs students about the lesson they will be learning today. Students are asked to prepare themselves and their writing materials.

b) Core Activities

In the core activities, the teacher explains the learning concepts, connects the material to everyday life, uses interactive multimedia, explains the material on biodiversity and provides examples. Afterward, the teacher divides the students into pairs, numbered 0, 1, and 2. The students are happy and enthusiastic about the learning process.

c) Closing Activities

At the end of this lesson, the teacher provides a summary of the learning process and then informs students about the material to be discussed in the next meeting. After the allotted time has elapsed, the teacher closes the meeting.

3) Observation

According to Cycle II Activity Observation meeting observations, the teacher delivered learning material in class. Following the Teaching Module, the teacher taught and learned. Students understood the learning process because the teacher utilized simple terminology. Teaching and learning activities were enthusiastically participated in by teachers and students. After explaining the content, the teacher invited students to learn via partnered practice adapted to the researcher's observation sheet. Students were thrilled when the teacher asked them to learn. This second cycle improved on the first. The practice rehearsal pairs method model improved student learning outcomes in this second cycle. During the implementation technique, pupils were fearless when called by the teacher and able to give their responses, while one or two were still unsure.

Table 3. Categories of learning activity scores in cycle II

No	Value	Category	Frequency	Percentage
1	80-100	Very good	10	60%
2	70-75	Good	6	10%
3	45-65	Fair enough	2	15%
4	20-40	Poor	2	15%
Total			20	100%

In the table above, 10 of 20 fifth-graders at Primary School 2 Ratu Abung scored "very good"—60%. 6 pupils (10%) rated "good". Two pupils (15%) rated "fair". Based on Cycle II fifth-grade students' learning results at primary school 02 Ratu Abung, North Lampung, classroom action research objectives were met. This is shown by the 90% passing rate > 80%. 18 students passed with a grade above the Minimum Competency of 75. Two of these pupils failed to meet the Minimum Competency.

4) Reflection

In Cycle II's first meeting, researchers used reflection to assess learning process strengths and flaws. In the second meeting of this second cycle, there were shortcomings, namely that the teacher's teaching method or delivery of material to students was very good, but the teacher started the lesson without an opening directly to the main activity because the research was done in the second hour.

At the second meeting of the second cycle, the researcher found that more than 50% of students enjoyed this word guessing game, which made them more active in learning, helped them understand the material, and increased learning activities and outcomes in Indonesian.

3.2. Discussion

This Classroom Action Research (CAR) at Primary School 2 Ratu Abung, South Abung District, East Lampung Regency, used the practice rehearsal pairs strategy learning paradigm four times in two cycles. Researchers also improved IPAS student learning in this study. Previous classroom activities with the practice rehearsal pairs strategy learning approach to increase scientific learning results for grade V at Primary School 2 Ratu Abung went successfully. In cycle I, 53.5% of educators observed researchers' learning activities at the first meeting and 53.5% at the second meeting. Cycle II: first meeting 90%, second meeting 81%. In cycle 1, the teacher started the lesson, discussed the material, and invited students to do paired learning after explaining chapter 6's diversity and biology. After explaining pair learning, the teacher taught how to conduct it. Student comprehension remained poor. Students were able to follow the teacher's instructions during implementation. The teacher's observation document sufficed in cycle I. Poor learning focus caused most students to be incomplete. After implementing group learning, the teacher delivered exam questions at the second meeting after the session. Grade V pupils' cycle learning outcomes analysis results I'm proficient at learning. This cycle included 6 outstanding (20%), 4 good (13.34%), 5 intermediate (30%), and 5 bad (36.66%) students. At the end of the cycle, the teacher gave fifth-graders 20 multiple-choice and 5 essay questions to complete in pairs to show how trio group learning improved their scores. Cycle 1 test scores averaged 56.66 with a 20% success rate.

In cycle II, student learning outcomes improved from both the first and second meetings. The learning process was the same as in cycle I, where before implementing group learning, the teacher first explained the material to be studied in chapter 6 of the IPAS lesson, "Diversity and Biodiversity." In this second cycle, the difference is very visible compared to cycle 1. In this second cycle, students demonstrate a high level of enthusiasm in participating in IPAS learning, and they also demonstrate a clear understanding of how to conduct group learning effectively. In this second cycle, there is an increase in student learning outcomes in IPAS learning compared to the previous cycle. The results of the analysis of the learning activities of grade V students in cycle II can be said to be good during the learning process. In this cycle, there are 15 students who are very good, with a percentage of 83.34%, and there are 5 students who are good, with a percentage of 16.66%. It can be said that this second cycle has succeeded in improving the learning outcomes of grade V students. With a percentage of 83.34%. Then after the implementation of pair learning, at the end of the learning at the end of the cycle meeting, the teacher gave students a test with 20 multiple-choice questions and 5 essay questions to prove how the results of grade V students' scores when pair learning

has been implemented to improve student learning outcomes. In cycle II the average score is 81%, and the success indicator is 90%.

The results of this study are supported by previous research that states that the practice rehearsal pairs strategy has a significant influence and contribution to student learning outcomes (e.g., [Suriani & Utami, 2019](#); [Tusyana, 2019](#); [Subarna et al., 2023](#); [Rusmani et al., 2024](#)). This strategy is effective because it directly activates students through repeated practice in pairs, thereby improving interaction, understanding, and mastery of the skills taught, especially for psychomotor material.

By implementing the practice rehearsal-paired learning strategy to improve IPAS learning outcomes, students are more enthusiastic and engaged in participating in the learning process. The learning activities in Cycles I and II demonstrate how active and effective this pairing practice becomes. The application of the practice rehearsal pairs learning strategy has advantages, such as facilitating the learning process and instilling a sense of enthusiasm for learning ([Utami & Mustadi, 2019](#); [Sanjaya et al., 2025](#)). Through pairing, students also learn more about the diversity and biological aspects of the lesson, increasing their curiosity and experimentation. Although some students were reluctant to participate in the pairing lesson during the learning process, they eventually understood the practice and were even more enthusiastic when the lesson began. After the implementation of the pairing practice, student learning outcomes improved in Cycles I and II.

4. CONCLUSION

The research shows that using the practice rehearsal pairs strategy learning model (pair practice) to improve IPAS learning outcomes in grade V at Primary School 2 Ratu Abung, North Lampung, can be seen in two ways: the teacher aspect, in the learning model of the Cycle I learning activities are active, according to analysis. In this cycle, 8 pupils are not good (46.66%), 4 are fairly good (33.34%), 5 are good (10%), and 3 are very good (10%). In cycle II, 5 outstanding students had 16.66%, and 15 very outstanding students had 81%. In the practice rehearsal pairs strategy learning model from cycle I to cycle II, student enthusiasm and activity always increase, as shown by observations and tests of student learning outcomes, so learning can run smoothly and conducive, and learning objectives are met.

IPAS teachers are advised to adopt and implement the practice rehearsal pairs strategy as an alternative learning method. This strategy has proven effective in increasing active participation and student retention due to the repetition mechanism (rehearsal) and immediate feedback from peers. Teachers need to provide brief training to students on the procedures for implementing Practice Rehearsal Pairs and managing heterogeneous pair formation (mixing high- and low-ability students) to ensure effective peer tutoring. Further research is recommended to not only focus on cognitive/psychomotor learning outcomes but also examine the impact of the Practice Rehearsal Pairs strategy on students' affective aspects. Furthermore, comparative research comparing the effectiveness of Practice Rehearsal Pairs with other cooperative

learning strategies (e.g., Think Pair Share or Jigsaw) on the same IPAS material is recommended.

REFERENCES

- Acevedo, A. (2018). A personalistic appraisal of Maslow's needs theory of motivation: From "humanistic" psychology to integral humanism. *Journal of business ethics*, 148(4), 741-763. <https://doi.org/10.1007/s10551-015-2970-0>
- Andreani, D., & Gunansyah, G. (2023). Persepsi guru Sekolah Dasar tentang Mata Pelajaran IPAS pada kurikulum merdeka. *Jurnal Penelitian Pendidikan Guru Sekolah Dasar*, 11(9).
- Chew, S. L., & Cerbin, W. J. (2021). The cognitive challenges of effective teaching. *The Journal of Economic Education*, 52(1), 17-40. <https://doi.org/10.1080/00220485.2020.1845266>
- Dessty, A., Sayekti, I. C., Rahmawati, F. P., Hidayati, Y. M., Kaltsum, H. U., Mahya, Y. M. Z., ... & Diaz, A. M. (2024). Development of a Natural and Social Sciences Learning Model Based on Socio Scientific Issues to Strengthen Scientific Literacy of Islamic Elementary School Students. *Jurnal Penelitian Pendidikan IPA*, 10(11), 8703-8711. <https://doi.org/10.29303/jppipa.v10i11.9094>
- Feigenbaum, K. D. (2024). A critique of Abraham Maslow and Carl Rogers as educators. *Journal of Humanistic Psychology*, 64(1), 44-63. <https://doi.org/10.1177/00221678231154819>
- Hardiansyah, F., AR, M. M., & Hidayatillah, Y. (2022). Ipas learning assessment to measure science process skill in elementary school. *International Journal of Elementary Education*, 6(4), 612-623. <https://doi.org/10.23887/ijee.v6i4.54217>
- Kause, M. C., Sunbanu, H. F., Selan, Y. A., & Maulana, R. (2025). Improving IPAS Learning Outcome using the Problem-Based Learning Model in Elementary School. *Jurnal Pijar Mipa*, 20(3), 539-543. <https://doi.org/10.29303/jpm.v20i3.8930>
- Komariah, M., As'ary, M. Y., Hanum, C. B., & Maftuh, B. (2023). IPAS Implementation in Elementary Schools: How Teachers Build Student Understanding. *Edunesia: Jurnal Ilmiah Pendidikan*, 4(3), 1399-1412. <https://doi.org/10.51276/edu.v4i3.533>
- Luthfi, A., Poespitohadi, W., Putra, I. M. A. W. W., & Mawarni, D. I. (2025). Quality Education in Achieving the SDGs in Indonesia. *Mediasosian: Jurnal Ilmu Sosial Dan Administrasi Negara*, 9(01).
- Luthfiyah, H., Nusantara, T., Faizah, S., & Kusumaningrum, S. R. (2025). Implementation of Deep Learning in Elementary School Improving the Effectiveness and Quality of IPAS Learning. *ELSE (Elementary School Education Journal): Jurnal Pendidikan dan Pembelajaran Sekolah Dasar*, 9(2). <https://doi.org/10.30651/else.v9i2.26271>
- Maulidiyah, A., & Jamhari, M. (2025). The Effect of Critical Thinking Ability and Learning Motivation on IPAS Learning Outcomes. *Jurnal Review Pendidikan Dasar: Jurnal Kajian Pendidikan dan Hasil Penelitian*, 11(1), 12-22. <https://doi.org/10.26740/jrpd.v11n1.p12-22>
- Moss, A. (2019). *Curriculum development in elementary education*. Scientific e-Resources.
- Navy, S. L. (2020). Theory of human motivation—Abraham Maslow. In *Science education in theory and practice: An introductory guide to learning theory* (pp. 17-28). Cham: Springer International Publishing. https://doi.org/10.1007/978-3-030-43620-9_2
- Pambudi, A. P., & Budiman, A. (2019). Keefektifan Metode Practice Rehearsal Pairs Terhadap Kemampuan Bercerita. *Jurnal ilmiah sekolah dasar*, 3(1), 25-34. <https://doi.org/10.23887/jisd.v3i1.17176>

- Pelley, J. (2014). Making active learning effective. *Medical Science Educator*, 24(Suppl 1), 13-18. <https://doi.org/10.1007/s40670-014-0087-1>
- Rusmani, R., Hayati, S., & Sartika, D. (2024). Efektivitas Strategi Practice Rehearsal Pairs terhadap Hasil Belajar Siswa pada Mata Pelajaran Fikih Kelas VII MTsN Padang Panjang. *ALFIHRIS: Jurnal Inspirasi Pendidikan*, 2(3), 175-194. <https://doi.org/10.59246/alfihris.v2i3.895>
- Safira, D. A., Supriyanto, T., & Trimurtini, T. (2024). The Effectiveness of the Problem-Based Learning Model Assisted by Mind Mapping in Natural and Social Sciences Subjects (IPAS). *Jurnal Penelitian Pendidikan IPA*, 10(8), 6038-6044. <https://doi.org/10.29303/jppipa.v10i8.8204>
- Sanjaya, I., Ananda, A., Rafni, A., & Montessori, M. (2025). Enhancing High School Student Engagement and Academic Achievement: The Analysis of the Practice Rehearsal Pairs Method. *Edukasi: Jurnal Pendidikan dan Pengajaran*, 12(01), 250-260.
- Satika, F. U., Ekaningtiass, P., & Fitriani, H. (2022). Pengaruh Metode Practice Rehearsal Pairs Terhadap Kemampuan Menulis Teks Negosiasi Siswa Kelas X Smk Muhammadiyah Tawang Rejo. *Seulas Pinang: Jurnal Pendidikan Bahasa dan Sastra*, 4(2), 56-61. <https://doi.org/10.30599/spbs.v4i2.1786>
- Sholihah, A. M. (2018). Implementasi Strategi Practice Rehearsal Pairs, Linghtening The Learning Climate, dan Simulasi dalam Pembelajaran di Sekolah. *QALAMUNA: Jurnal Pendidikan, Sosial, dan Agama*, 10(01). <https://doi.org/10.5281/zenodo.3559234>
- Sikabe, A., & Baderiah, B. (2024). Peningkatan Hasil Belajar Ilmu Penegetahuan Alam melalui Strategi Pembelajaran Practice Rehearsal Pairs Siswa Sekolah Dasar. *Jurnal Konsepsi*, 13(2), 71-86. <https://p3i.my.id/index.php/konsepsi/article/view/355>
- Subarna, A., Munawar, M., & Holik, A. (2023). The Use of Practice Rehearsal Pairs Strategy in Improving Al-Qur'an Reading Ability at SMK Negeri 10 Bandung. *al-Afkar, Journal For Islamic Studies*, 6(3), 535-545. <https://doi.org/10.31943/afkarjournal.v6i3.705>
- Suriani, T., & Utami, K. B. (2019). Penerapan Strategi Pembelajaran Aktif Tipepractice-Rehearsal Pairs Dalam Pembelajaran Matematika Siswa Kelas VII SMPN 1 Ranah Pesisir. *Jurnal Ilmiah Pendidikan Scholastic*, 3(2), 16-26. <https://e-journal.sastra-unes.com/index.php/JIPS/article/view/356>
- Surul, R., & Septiliana, L. (2023). Analysis of the implementation of ipas (natural and social sciences) learning in the merdeka curriculum. *Educatio: Journal of Education*, 8(2), 320-328. <https://doi.org/10.29138/educatio.v8i3.1301>
- Susilowati, D., Saputro, B. A., & Sutono, A. (2025). The effect of strengthening the literacy movement in natural and social sciences (IPAS) learning on improving students' scientific literacy and critical thinking skills. *Primary: Jurnal Pendidikan Guru Sekolah Dasar*, 14(1), 11-28.
- Tusyana, E. (2019). Pengaruh model pembelajaran tipe practice rehearsal pairs terhadap hasil belajar fiqih kelas 3 MI Ismaria Al-Qur'aniyyah Rajabasa Bandar Lampung. *Terampil: Jurnal Pendidikan dan Pembelajaran Dasar*, 6(1), 23-33. <https://doi.org/10.24042/terampil.v6i1.3840>
- Ubaidillah, S. R., Balqis, A. E., Jannah, B., Maimuna, S., & Fatmawati, E. (2025). Transformation of IPAS Learning in Elementary Schools: The Strategic Role of Digital Media in Improving Students' Understanding. *Journal of Elementary Education Research and Practice*, 1(2), 92-101. <https://doi.org/10.70376/e44mz803>

- Uska, M. Z. (2017). The Application of Practice Rehearsal Pairs Learning Model toward Basic Programming Learning Outcomes. *Edumatic: Jurnal Pendidikan Informatika*, 1(2), 44-48. <https://doi.org/10.29408/edumatic.v1i2.945>
- Utami, N. A., & Mustadi, A. (2019). The Application of Practice Rehearsal Pairs (PRP) Method to Develop Inquisitiveness of Learning in Students. *KnE Social Sciences*, 269-279.
- Wiwin, W., Yanti, R., & Ma'rufi, M. R. (2021). Penerapan Strategi Pembelajaran Practice Rehearsal Pairs untuk Meningkatkan Aktivitas dan Hasil Belajar IPA Kelas V SDN 93 Tombang. *Jurnal Pelita: Jurnal Pembelajaran IPA Terpadu*, 1(2), 51-59. <https://doi.org/10.54065/pelita.1.2.2021.98>