

## THE EFFECT OF THE THINK PAIR SHARE (TPS) MODEL ON INCREASING THE LEARNING ACTIVITY OF LIVING THINGS CYCLE MATERIAL IN GRADE 4 SD NEGERI 001 PUJUD SELATAN ROKAN HILIR

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### ABSTRACT

*The aim of this research is to determine the effect of the think pair share (TPS) model on increasing students' learning activeness in the material on life cycles in class 4 of SD Negeri 001 Pujud Selatan Rokan Hilir. The results of this research can be used as reading material, reference and as a guide for teachers and especially parents in practicing providing learning to their children. The method in this research is an experimental method with a one group pre test – post test design, namely one class as a control and experimental class. The data analysis technique used is quantitative data analysis. The results of this research are that there is a significant difference in students' activeness in learning science at SD Negeri 002 Pujud Selatan before and after using the think pair share (TPS) learning model. This can be proven by the results of hypothesis testing in the initial test (pre-questionnaire) using the independent sample test, obtaining a significance value of 0.358, which means  $0.358 > 0.05$ , so  $H_0$  is accepted after being given treatment, so hypothesis testing is carried out in the final test (post-questionnaire). Using the Mann-Whitney test, a significance value of 0.000 is obtained, which means  $0.000 < 0.05$ , so  $H_1$  is accepted, indicating that there is a significant influence, so it can be concluded that the application of the think pair share (TPS) learning model can increase students' active learning in science learning at school. base.*

**KEYWORDS** think pair share (tps) model, active student learning, living creature material



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### INTRODUCTION

Everyday natural events are the focus of science subjects (Defni & Ramli, 2022). When it comes to things that are really important in life, Science is one of those subjects (Astuti et al., 2022). Therefore, science subjects prioritize direct experience (Sumarli, 2018). However, not all students excel in science subjects (Febiwanty & Mustika, 2024). This is due to the lack of diversity in the learning

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process which causes students to be less involved and students have difficulty understanding the subjects taught (Nurjannah, 2019).

One of the hallmarks of a well-rounded basic science curriculum is its emphasis on the study of the cosmos, which includes phenomena that are both visible and invisible to the naked eye (Beribe et al., 2021). The scientific method, sometimes known as natural science (IPA), is a method used by knowledgeable people to build theories about the nature of the cosmos and the phenomena that exist in it (Anggara et al., 2021). Furthermore, science is defined as the study of natural events through the development of tried-and-true facts, ideas, and rules that can help students in understanding these phenomena. In order for the learning process to function properly, students must actively participate in science classes (Debele & Kelbisa, 2017).

One of the most important components of effective learning is active learning. Students will be more engaged and think critically when active learning is applied, transforming what may have been a tedious task into something fun (Hariandi & Cahyani, 2018). Active learning is characterized by the following behaviors: completing teacher-assigned tasks, actively participating in problem-solving, seeking various sources of information to solve problems, practicing problem-solving skills, and evaluating their own performance and the results of their efforts (Sudjana, 2021).

Based on the results of interviews with the fourth grade teacher of SD Negeri 001 Pujud, learning in the classroom mostly uses the lecture method, so that students become passive and easily bored. As a result, the learning process did not run as smoothly as expected. The weaknesses of the lecture method include students becoming passive, students find learning boring so that it is less interesting to absorb information, students are sleepy due to the pressure to listen, and difficulties in controlling learning evaluation due to the absence of clear achievement targets (Sulandari, 2020).

Therefore, one option is to identify a learning model or approach that is appropriate for scientific content. The "think-pair-share" method is one such approach. In the think-pair-share paradigm, students work in pairs to complete activities assigned by the teacher. This approach provides more opportunities for students to use their critical and creative thinking skills in answering questions. The goal is to foster an environment where students are motivated to learn and can find their own unique ways of understanding what they are learning (Meiharty, 2018). Research conducted by Sari et al. (2023) confirmed that the Think Pair Share (TPS) learning model can increase student involvement in science lessons for fourth grade students at SD Negeri 153/IX Suka Makmur.

Student engagement is maximized in the thinking-pair-sharing learning approach, which also allows them to work alone at first, which boosts their confidence before they have the opportunity to work with a discussion partner. In addition, student connections are enhanced. The results of a 2021 study by Vetty Norma Lasari, Anis Fuadah Z, and Rohmat Widiyanto corroborate this; The authors found that the engagement and performance of fourth-grade students increased after using a cooperative learning approach based on the concept of "thinking-pairing-sharing". Furthermore, the procedure used by the TPS model is interesting, especially the allocation of additional time for students (Setiawan et al., 2020). Learning under the Think Pair Share (TPS) paradigm is characterized by groups

where members can voice their perspectives, collaborate, and exchange knowledge with each other.

The initial problem found in grade 4 of SD Negeri 001 Pujud Selatan is the lack of activity of students during science learning which is caused by the monotonous learning model or learning method that the teacher uses such as the lecture learning model so that students are bored and less interested in listening to explanations from the teacher. Therefore, improvements are needed in the selection of a good learning model in the learning process so that students become active and the learning process becomes fun.

The purpose of this study is to determine the influence of the *think pair share* (TPS) model on increasing students' learning activity in the 4th grade of SD Negeri 001 Pujud Selatan Rokan Hilir.

## RESEARCH METHOD

The research strategy used in this study is an experimental technique, which divides the population into a control group and an experimental group to determine the impact of therapy (Sugiyono, 2016: 11-12). Specifically, quantitative data analysis is used. The authors of this study hope to get an idea of what patients experience before and after therapy. The purpose of this study is to compare the level of student engagement with the material before and after using the TPS teaching style. Fourth-grade students from SD Negeri 001 Pujud Selatan in Pujud District, Rokan Hilir Regency will participate in this study. The school is located on Jalan Inpres. No. 2 in Pujud. The even semester of the 2023–2024 school year is when this research is carried out..

In this study, the sampling used is *a simple random sampling* technique. *Simple random sampling* is a simple sampling technique, because in the sampling process, this technique is carried out randomly without considering the strata in a population (Hanief & Himawanto, 2017).

Among the many important steps in data collection required, data collection stands out as a systematic and uniform operation. Observation, recording, and questionnaires are the main data collection methods used by authors.

One way to measure things related to research variables is through research instruments. (Syamsuryadin & Wahyuniati, 2017). The purpose of this measurement is to collect objective data with the aim of drawing objective conclusions from the study. The following are the research tools used in this study:

### **1. Student Learning Activity Questionnaire**

Grade 4 students of SD Negeri 001 Pujud Selatan were asked to fill out a questionnaire as a means of collecting information (Sugiyono, 2013:199). Using the Think Pair Share (TPS) learning approach, the survey asked fourth-graders a series of questions designed to elicit responses to their understanding of life cycles. The student learning activity questionnaire is shown below in a grid format.

**Student Learning Activity Questionnaire Grid Table**

<b>t</b>	<b>Indicator</b>	<b>Sub Indicators</b>	<b>Number of Grains Positive Statement</b>
•	<i>Or al Activities</i>	1. Students actively ask questions during the learning process. 2. Students expressed their opinions during the discussion. 3. Students actively answer the teacher's questions. 4. Students are able to present the results of the discussion smoothly.	4
•	<i>Listening Activities</i>	1. Student participation listens to the teacher's direction. 2. Student participation listening to learning materials. 3. Student participation when listening to the opinions of friends during discussions.	3
•	<i>Writing Activities</i>	1. Students take notes on the teacher's explanation. 2. Students are able to record the results of the discussion well. 3. Students complete the tasks assigned by the teacher.	3
•	<i>Mental Activities</i>	1. Students respond to questions from teachers and friends. 2. Students give suggestions to teachers. 3. Students are able to solve problems given by teachers.	3
•	<i>Motor Activity</i>	1. Students move quickly when the teacher asks to form a group. 2. Students present by advancing to the front of the class.	2

Source: Paul D. Deirich in Hamalik, (2006: 172).

**Student Learning Activity Questionnaire Scoring Table Using the Gutman Scale**

<b>Alternative Answer</b>	<b>Score</b>
<b>Yes</b>	1
<b>Not</b>	0

Source: Sugiyono, (2018).

The categories that determine students' learning activity in science learning are as follows:

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**Table of Categories Determinating Student Learning Activity**

No.	Percentage	Category
1.	< 50%	Very Low
2.	50 – 69%	Low
3.	70 – 85%	Enough
4.	> 85%	Tall

Source : Sukinah, (2013).

## 2. Observation Sheet

Researchers collected data for this study by keeping detailed records of the observations they made while in the field. The Think-Pair-Share (TPS) teaching method requires the use of observation sheets to track how actively students participate in class. To measure how active students are learning, researchers look at five main indications, which are as follows:

**Grid Table of Student Learning Activity Observation Sheet**

No.	Indicator	Number of Items
1.	Oral Activities	4
2.	Listening Activities	3
3.	Writing Activities	3
4.	Mental Activities	3
5.	Motor Activity	2

Source: Paul D. Deirich in Hamalik, (2006).

**Table of Scoring Criteria for Student Learning Activity Observation Sheets Using the Gutman Scale**

Alternative Answer	Score
Yes	1
Not	0

Source: Sugiyono, (2018).

This research instrument is first carried out a validity test and a reliability test. Here is a further explanation:

### a) Validity Test

A validity test is a test that has a function to see whether a measuring tool is valid (valid) or invalid. The measuring tools referred to here are the questions in the questionnaire.

### b) Reliability Test

One way to determine how reliable a measuring tool is is to conduct a reliability test. That's why it's important to perform reliability tests to find out if the measuring instrument is consistent and can withstand repeated measurements.

### c) Data Analysis of Observation of Learning Activity

$$P = x 100 \% \frac{f}{n}$$

Category:

P = Percentage

F = Average activeness score

N = Total amount of activity assessed.

## RESULT AND DISCUSSION

This study was conducted in one class which was used as a control class and an experimental class as many as 2 meetings in the experimental class that was given the *Think Pair Share* (TPS) learning model and 2 meetings in the control class without the *Think Pair Share* (TPS) learning model treatment. The following are the results of the research:

### 1) Trial Contract Validation Test Results

The researcher conducted construct validity which was an instrument test. This cob test was tested on 18 grade 4 students with the results declared valid.

Sub Indicators	Calculate	Information
Students actively ask questions during the learning process.	0,574	Valid
Students expressed their opinions during the discussion.	0,412	Valid
Students actively answer the teacher's questions.	0,432	Valid
Students are able to present the results of the discussion smoothly.	0,412	Valid
Student participation listens to the teacher's direction.	0,532	Valid
Student participation listening to learning materials.	0,481	Valid
Student participation when listening to the opinions of friends during discussions.	0,383	Valid
Students take notes on the teacher's explanation.	0,584	Valid
Students are able to record the results of the discussion well.	0,424	Valid
Students complete the tasks assigned by the teacher.	0,405	Valid
Students respond to questions from teachers and friends.	0,421	Valid
Students give suggestions to teachers.	0,378	Valid
Students are able to solve problems given by teachers.	0,424	Valid

Students move quickly when the teacher asks to form a group.	0,412	Valid
Students present to the front of the class.	0,481	Valid

## 2) Control and Experiment Class Pre-questionnaire

### a) *Oral Activity* Control Class

The *oral activity* indicator consists of 4 statement terms which are positive statements. The score obtained from each statement can be seen in the table below:

**Table 1.** Pre-questionnaire Score of *Oral Activity Indicators* of Control and Experiment Classes

No Item	Statement	Total Score	Percentage	Category
1	I was motivated to ask questions during science lessons.	15	83,3 %	Enough
2	I expressed my opinion during the discussion on science learning.	9	50 %	Low
3	I actively answered the teacher's questions during science lessons.	11	61,1 %	Low
4	I was able to present the results of the discussion smoothly during science learning.	10	55,6 %	Low
<b>Sum</b>		<b>45</b>	<b>250%</b>	<b>-</b>
<b>Average</b>			<b>62,5%</b>	<b>Low</b>

Source : Results of data management by researchers

Based on table 1, it can be concluded that the achievement of students in the *Oral Activity indicator* in the control and experimental classes is still relatively low, namely 62.5%.

### b) *Listening Activity*

The *listening activity* indicator consists of 3 statement items, including items 5, 6, 7 which are positive statements. The score obtained from each statement can be conveyed through the table below:

**Table 2.** Pre-questionnaire scores of *Listening Activity Indicators* Control Class and experiments

No Item	Statement	Total Score	Percentage	Category
5	I listened to the teacher's directions well during science lessons.	15	83,3 %	Enough

<b>6</b>	I listened to the science learning material well.	14	77,8%	Enough
<b>7</b>	I listened to my friends' opinions when discussing science learning well.	10	55,6 %	Low
<b>Sum</b>		<b>39</b>	<b>216,7 %</b>	<b>-</b>
<b>Average</b>			<b>72,,2 %</b>	<b>Enough</b>

Source : Results of data management by researchers

Based on table 2, it can be concluded that the achievement of students in the *Listening Activity indicator* in the control and experimental classes is still quite adequate, namely 72.2%.

#### c) *Writting Activity*

The *writting activity* indicator consists of 3 statement terms including items 8, 9, 10 which are positive statements. The score obtained from each statement can be seen in the table below:

**Table 3.** Pre-questionnaire scores of *Writting Activity Indicators* of Control and Experiment Classes

No Item	Statement	Total Score	Percentage	Category
<b>5</b>	I took note of the teacher's explanation during the science lesson.	12	66,7 %	Tall
<b>9</b>	I recorded the results of the discussion on science learning well.	15	83,3 %	Tall
<b>12</b>	I completed the science learning assignment well.	14	77,8 %	Tall
<b>Sum</b>		<b>41</b>	<b>227.8 %</b>	<b>-</b>
<b>Average</b>			<b>76 %</b>	<b>Enough</b>

Source : Results of data management by researchers

Based on table 3, it can be concluded that the average writing *activity indicator* obtained by the control class and the experimental class is 76%, meaning it is classified as adequate.

#### d) *Motor Activity*

The *motor activity* indicator consists of 3 statement terms including items 11, 12, 13 which are positive statements. The score obtained from each statement is as in the table below:

**Table 4.** Pre-questionnaire scores of *Motor Activity Indicators* Control and Experiment Classes

No Item	Statement	Total Score	Percentage	Category
<b>11</b>	I dare to respond to the questions given by the teacher during the science lesson.	10	55,6 %	Low
<b>12</b>	I give advice to teachers on science learning satt.	9	50 %	Low



<b>13</b>	I completed the science learning assignment well.	16	88,9 %	Tall
<b>Sum</b>		<b>35</b>	<b>194,5 %</b>	<b>-</b>
<b>Average</b>			<b>64,8 %</b>	<b>Tall</b>

Source : Results of data management by researchers

Based on table 4, it can be concluded that the average motor *activity* indicator obtained by the control class and the experimental class is 64.8%% with a low category.

#### e) *Mental Activity*

The *mental activity* indicator consists of 2 statement terms, including item 14.15 which is a positive statement. The score obtained from each statement can be seen in the table below:

**Table 5.** Pre-questionnaire Score of *Mental Activity Indicators* of Control and Experiment Classes

No Item	Statement	Total Score	Percentage	Category
<b>14</b>	I moved quickly when the teacher asked to form a group during science learning	15	83,3 %	Enough
<b>15</b>	I came forward for a presentation without being appointed by a teacher during science lessons.	8	44,4 %	Low
<b>Sum</b>		<b>23</b>	<b>127,7 %</b>	<b>-</b>
<b>Average</b>			<b>63,9 %</b>	<b>Tall</b>

Source : Results of data management by researchers

Based on table 5, it can be concluded that the average mental *activity* indicator obtained by the control class and the experimental class is 63.9 %% with a very low category.

### 3) Post-questionnaire Control and Experiment Classes

#### a) *Oral Activity Control Class*

The *oral activity* indicator consists of 4 statement terms which are positive statements. The score obtained from each statement can be seen in the table below:

**Table 6.** Post-questionnaire Score of *Oral Activity Indicator* of Control Class

No Item	Statement	Total Score	Percentage	Category
<b>1</b>	I was motivated to ask questions during science lessons.	15	83,3 %	Enough
<b>2</b>	I expressed my opinion during the discussion on science learning.	14	77,8 %	enough
<b>3</b>	I actively answered the teacher's questions during science lessons.	13	72,2 %	enough

<b>4</b>	I was able to present the results of the discussion smoothly during science learning.	12	66,7 %	Low
<b>Sum</b>		<b>54</b>	<b>309,9%</b>	<b>-</b>
<b>Average</b>			<b>77,5 %</b>	<b>enough</b>

Source : Results of data management by researchers

Based on table 6, it can be concluded that the achievement of post-questionnaire students on the *Oral Activity indicator* in the control class is still quite sufficient, namely 77.5%. There was a difference from the pre-questionnaire on the *Oral Activity* indicator with a difference of 15 %.

#### b) *Listening Activity*

The *listening activity* indicator consists of 3 statement terms including items 5, 6, 7 which are positive statements. The score obtained from each statement can be seen in the table below:

**Table 7.** Post-questionnaire Score of *Listening Activity Indicator* Control Class

No Item	Statement	Total Score	Percentage	Category
<b>5</b>	I listened to the teacher's directions well during science lessons.	15	83,3 %	Enough
<b>6</b>	I listened to the science learning material well.	14	77,8%	Enough
<b>7</b>	I listened to my friends' opinions when discussing science learning well.	11	61,1 %	Tall
<b>Sum</b>		<b>40</b>	<b>222,2 %</b>	<b>-</b>
<b>Average</b>			<b>74,1%</b>	<b>Enough</b>

Source : Results of data management by researchers

Based on table 7, it can be concluded that the achievement of students in the *Listening Activity indicator* in the control class is 74.1% with the category of sufficient

#### c) *Writing Activity*

The *writing activity* indicator consists of 3 statement terms including items 8, 9, 10 which are positive statements. The score obtained from each statement is as in the table below:

**Table 8.** Post-questionnaire Score of *Writing Activity Indicator* of Control Class

No Item	Statement	Total Score	Percentage	Category
<b>5</b>	I took note of the teacher's explanation during the science lesson.	12	66,7 %	Tall
<b>9</b>	I recorded the results of the discussion on science learning well.	15	83,3 %	Tall

<b>12</b>	I completed the science learning assignment well.	14	77,8 %	Tall
<b>Sum</b>		<b>41</b>	<b>227.8 %</b>	-
<b>Average</b>			<b>76 %</b>	<b>Low</b>

Source : Results of data management by researchers

Based on table 4.14, it can be concluded that the average writing *activity indicator* obtained by the control class is 76%, meaning it is relatively low.

#### d) Motor Activity

The *motor activity* indicator consists of 3 statement terms including items 11, 12, 13 which are positive statements. The score obtained from each statement is presented in the table below:

**Table 9.** Pre-questionnaire Score of Motor Activity Indicator Control Class

No Item	Statement	Total Score	Percentage	Category
<b>11</b>	I dare to respond to the questions given by the teacher during the science lesson.	12	66,7 %	Low
<b>12</b>	I give advice to teachers on science learning satt.	13	72,2 %	Enough
<b>13</b>	I completed the science learning assignment well.	16	88,9 %	Tall
<b>Sum</b>		<b>41</b>	<b>227,8 %</b>	-
<b>Average</b>			<b>76 %</b>	<b>Enough</b>

Source : Results of data management by researchers

Based on table 10, it can be concluded that the average motor *activity* indicator obtained by the control class is 48.6%% with a very low category.\

#### e) Mental Activity

The *mental activity* indicator consists of 2 statement terms, including item 14.15 which is a positive statement. The score obtained from each statement can be seen in the table below:

**Table 10.** Pre-questionnaire Score of Mental Activity Indicators of Control Class

No Item	Statement	Total Score	Percentage	Category
<b>14</b>	I moved quickly when the teacher asked to form a group during science learning	15	83,3 %	Enough
<b>15</b>	I came forward for a presentation without being appointed by a teacher during science lessons.	8	44,4 %	Low
<b>Sum</b>		<b>23</b>	<b>127,7 %</b>	-
<b>Average</b>			<b>63,9 %</b>	<b>Low</b>

Source : Results of data management by researchers

Based on table 10, it can be concluded that the average mental *activity* indicator obtained by the control class is 32%% with a very low category.

**f) Oral Activity Experimental Classes**

The *oral activity* indicator consists of 4 statement terms which are positive statements. The score obtained from each statement can be seen in the table below:

**Table 11.** Post-questionnaire Score of *Oral Activity Indicators* of Experimental Class

No Item	Statement	Total Score	Percentage	Category
1	I was motivated to ask questions during science lessons.	17	94,4 %	Tall
2	I expressed my opinion during the discussion on science learning.	16	88,9 %	Tall
3	I actively answered the teacher's questions during science lessons.	16	88,9 %	Tall
4	I was able to present the results of the discussion smoothly during science learning.	16	88,9 %	Tall
<b>Sum</b>		<b>65</b>	<b>361,1 %</b>	<b>-</b>
<b>Average</b>			<b>90,3 %</b>	<b>Tall</b>

Source : Results of data management by researchers

Based on table 11, it can be concluded that the achievement of post-questionnaire students on the *Oral Activity* indicator in the experimental class has increased, namely to 90.3 with a high category.

**g) Listening Activity**

The *listening activity* indicator consists of 3 statement terms including items 5, 6, 7 which are positive statements. The score obtained from each statement can be seen in the table below:

**Table 12.** Post-questionnaire Score of *Listening Activity Indicator* of Experimental Class

No Item	Statement	Total Score	Percentage	Category
5	I listened to the teacher's directions well during science lessons.	18	100 %	Tall
6	I listened to the science learning material well.	17	94,4 %	Tall
7	I listened to my friends' opinions when discussing science learning well.	15	83,3 %	Enough
<b>Sum</b>		<b>50</b>	<b>2,77,7 %</b>	<b>-</b>
<b>Average</b>			<b>92,6 %</b>	<b>Tall</b>

Source : Results of data management by researchers

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Based on table 12, it can be concluded that the achievement of students in the *Listening Activity indicator* in the experimental class is 74.1% with the category of adequate.

#### **h) Writing Activity**

The *writing activity* indicator consists of 3 statement terms including items 8, 9, 10 which are positive statements. The score obtained from each statement can be seen in the table below:

**Table 13.** Post-questionnaire Score of Indicator *Writing Activity* of Experimental Class

No Item	Statement	Total Score	Percentage	Category
5	I took note of the teacher's explanation during the science lesson.	16	88,9 %	Tall
9	I recorded the results of the discussion on science learning well.	16	88,9 %	Tall
12	I completed the science learning assignment well.	18	100 %	Tall
<b>Sum</b>		<b>50</b>	<b>277.8 %</b>	-
<b>Average</b>			<b>92.6 %</b>	<b>Tall</b>

Source : Results of data management by researchers

Based on table 13, it can be concluded that the average *writing activity indicator* obtained by the experimental class is 92.6%, which means it is relatively high.

#### **i) Motor Activity**

The *motor activity* indicator consists of 3 statement terms including items 11, 12, 13 which are positive statements. The score obtained from each statement can be seen in the table below:

**Table 13.** Pre-questionnaire Score of *Motor Activity Indicator* Experimental Class

No Item	Statement	Total Score	Percentage	Category
11	I dare to respond to the questions given by the teacher during the science lesson.	15	83,3 %	Enough
12	I give advice to teachers on science learning satt.	16	88,9 %	Tall
13	I completed the science learning assignment well.	18	100 %	Tall
<b>Sum</b>		<b>49</b>	<b>272,2 %</b>	-
<b>Average</b>			<b>90,7 %</b>	<b>Tall</b>

Source : Results of data management by researchers

Based on table 13, it can be concluded that the average *motor activity indicator* obtained by the experimental class increased by 90.7%% with the high category.

**j) Mental Activity**

The *mental activity* indicator consists of 2 statement terms, including item 14.15 which is a positive statement. The score obtained from each statement can be seen in the table below:

**Table 14.** Pre-questionnaire Score of *Mental Activity Indicators* of Experimental Class

No Item	Statement	Total Score	Percentage	Category
14	I moved quickly when the teacher asked to form a group during science learning	16	88,9 %	Enough
15	I came forward for a presentation without being appointed by a teacher during science lessons.	15	83,3 %	Low
<b>Sum</b>		<b>23</b>	<b>172,2 %</b>	<b>-</b>
<b>Average</b>			<b>86,1 %</b>	<b>Low</b>

Source : Results of data management by researchers

Based on table 14, it can be concluded that the average *mental activity* indicator obtained by the experimental class is 86.1 % with a high category.

**4) Recapitulation of Pre-questionnaire and Post-questionnaire Scores**

Based on the results of the pre-questionnaire and post-questionnaire calculations carried out previously in terms of indicators, the following can be seen the results of the recapitulation of the calculation in the table below:

**Table 15.** Pre-questionnaire score recapitulation

No.	Indicator	Control Classes	Percentage
1.	<i>Oral activity</i>	45	62,5%
2.	<i>Listening activity</i>	39	72,5 %
3.	<i>Writing activity</i>	41	76 %
4.	<i>Motor activity</i>	35	64,8 %
5.	<i>Mental activity</i>	23	63,9 %
<b>Sum</b>		<b>183</b>	<b>339,7 %</b>
<b>Average</b>		<b>36,6</b>	<b>68 %</b>
<b>Category</b>		<b>Low</b>	

Source : Results of data management by researchers

Based on table 15, it can be concluded that the average pre-questionnaire of the control class and the experimental class is 68% with a low category.

**Table 16.** Recapitulation of Post-questionnaire scores

No.	Indicator	Control Classes	Percentage	Experimental Classes	Percentage
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1.	Oral activity	54	77,5 %	65	90,3 %
2.	Listening activity	40	74,1 %	50	92,6 %
3.	Writting activity	41	76 %	50	92,6 %
4.	Motor activity	41	76 %	49	90,7 %
5.	Mental activity	23	63,9 %	23	86,1 %
<b>Sum</b>		<b>199</b>	<b>367,5 %</b>	<b>237</b>	<b>452,3 %</b>
<b>Average</b>		<b>39,8</b>	<b>73,5 %</b>	<b>47,4</b>	<b>90,5%</b>
<b>Category</b>		<b>Enough</b>		<b>Tall</b>	

Source : Results of data management by researchers

Based on table 16, it can be seen that the average post-questionnaire of the control class and the experimental class is that there is a significant difference between the two classes, the difference in the post-questionnaire score of the two classes is obtained by 17%.

The application of the think-pair-share (TPS) learning approach resulted in greater student involvement in the learning process, according to the data processing findings. The average findings of the questionnaire before and after showed that the learning activities of the experimental class increased; The average score of the experimental class before the questionnaire was 68% and the average score of the experimental class after the questionnaire was 90.5%. The experimental group outperformed the control group in terms of increase in mean scores, increasing from 68% before the questionnaire application to 73.5% afterwards.

**Table 17.** Table of Hypothesis Test Results  
*Independent Samples Test*

		<i>t-test for Equality of Means</i>		
		<i>Df</i>	<i>Sig. (2-tailed)</i>	<i>Mean Difference</i>
<i>Student learning activity</i>	<i>Equal variances assumed</i>	36	.358	-2.52632
	<i>Equal variances not assumed</i>	35.386	.358	-2.52632

Source : Results of data processing by researchers

This study found that after applying the think-pair-share (TPS) approach to science learning at SD Negeri 002 Pujud Selatan, students became more involved in learning than before. This can be proven by looking at the results of hypothesis tests. In the first test (pre-questionnaire), the independent sample test produced a significance value of 0.358 which was greater than 0.05. Thus, Ho was accepted. In the second test (post-questionnaire), the Mann-Whitney test produced a significance value of 0.000 which was smaller than 0.05. Thus, H1 is accepted. This

shows that there is a significant influence and it can be concluded that the think-pair-share (TPS) learning model can increase student involvement in science learning in elementary schools.

### Discussion

The purpose of this study is to test the influence of the think-pair-share (TPS) model on the involvement of grade IV students of SD Negeri 001 Pujud Selatan Rokan Hilir on life cycle content (IPA). The idea behind this study is that students will not actively participate in science classes if their teachers use boring and time-consuming teaching methods, such as lecture models, which will make them disinterested in the material. This encourages researchers to conduct research with the aim of increasing student involvement in the learning process. The recommended action is to practice one of the learning models, namely TPS. Teachers can use the findings of this research as a guide for future learning that aims to arouse students' interest and make them more engaged in the material.

The results found in this study are known that the use of *the think pair share* (TPS) learning model has an effect on increasing the learning activity of grade 4 students in the material of the cycle of living things at SD Negeri 001 Pujud Selatan Rokan Hilir. The increase in student learning activity in the experimental class can be seen from the average results of the pre-questionnaire and post-questionnaire where the average pre-questionnaire score of the experimental class is 68% and the average post-questionnaire score is 90.5%. The increase in the average score of the experimental class was higher than that of the control class with an average score of 68% in the pre-questionnaire implementation to 73.5% in the post-questionnaire implementation. Then the results of *the mann whitney test* can be seen in table 4.28, which is  $0.000 < 0.05$ , then H1 is accepted and Ho is rejected, meaning that the application of the *think pair share* (TPS) learning model has an effect on students' learning activity in science teaching.

The purpose of this study is to test the influence of the think-pair-share (TPS) model on the involvement of grade IV students of SD Negeri 001 Pujud Selatan Rokan Hilir on life cycle content (IPA). The idea behind this study is that students will not actively participate in science classes if their teachers use boring and time-consuming teaching methods, such as lecture models, which will make them disinterested in the material. This encourages researchers to conduct research with the aim of increasing student involvement in the learning process. The recommended action is to practice one of the learning models, namely TPS. Teachers can use the findings of this research as a guide for future learning that aims to arouse students' interest and make them more engaged in the material.

Students showed a high level of attention in listening, completing assignments, and respecting each other's opinions when using the think-pair-share (TPS) learning model, which showed that the learning in this study was of high quality. In accordance with Hayati's (2022) belief that high-quality education will encourage students to act, this activity can measure the level of student engagement with the material. By "engagement" here we mean students' actions when listening, committing to assignments, promoting their participation in learning, taking responsibility for their work, valuing their classmates' perspectives, asking for advice from adults, and answering questions.

It is clear that students in the experimental class compete with each other to answer questions and present the results of class discussions as they study. To



complete the tasks assigned by the teacher, students collaborate well in their groups. In addition, students are seen engaged, ask questions, and respond appropriately to teachers' questions.

Rizal (2018) found that there is a substantial difference between traditional learning methods and think-pair-share (TPS) which has an impact on student involvement in mathematics learning, thus strengthening the conclusion of this study. Another research that strengthens this conclusion is Rizka's (2018) research on the impact of the think-pair-share (TPS) learning model on student involvement in learning moral beliefs at MA Al-Hikmah Bandar Lampung. The respondents of the TPS model outperformed the respondents of the expository learning model (lecture method) in this case. This finding is reinforced by Ibrahim (2017) research on the impact of the think-pair-share (TPS) cooperative learning model on student engagement and mathematics achievement. The study shows that the TPS model has an effect on student engagement.

### CONCLUSION

The conclusion of this study is that there is a significant influence of 90.5%, so it can be concluded that the application of the *think pair share* (TPS) learning model can increase students' learning activity in science learning in elementary schools.

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