Improving Biology Learning Outcomes on the Subject of Ecology Using Think Pair Share Type Learning Strategies for Class X Science Students at Onate High School, Yapen Islands, Papua Province

by Martenci Yawandare

Improving Biology Learning Outcomes on the Subject of Ecology Using Think Pair Share Type Learning Strategies for Class X Science Students at Onate High School, Yapen Islands, Papua Province

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Abstract. This research aims to improve student learning outcomes on ecology by implementing the Think Pair Share type learning strategy in class X Science at SMA Onate, Yapen Islands, Papua Province. The research method used is classroom action research. The subjects of this research were 25 class X Science students at Onate High School, Yapen Islands, Papua Province. This research was carried out in two cycles, and each cycle was carried out in 3 meetings. The research results showed that the recapitulation of learning outcomes in cycle I was 60%, or 15 students completed classical learning. In comparison, in cycle II, the percentage of student learning completion was 88%, or 22 students completed classical learning. Implementing the Think Pair Share type learning strategy can improve student learning outcomes in class X Science at SMA Onate, Yapen Islands, Papua Province.

Keywords: Learning Outcomes, Biology, Ecology, TPS.

INTRODUCTION

Education is a conscious effort to prepare students to play an active and positive role in their lives now and in the future (Suhardjono, 2006; Anwar, 2007). In this case, education plays a vital role in human survival because a developed nation always begins with successful education (Arief, 2005; Susilawati et al., 2016); educational institutions become a place to produce quality human resources and become a motor for the nation's progress and prosperity (Supardi, 2006; Encik, 2007). In education, teachers play a vital role because they are the spearhead of running educational programs and one of the factors determining the success or failure of learning activities (Slameto, 1991; Ine, 2005). Therefore, the quality of teachers is always a concern when it comes to the quality of education. To obtain optimal learning results, efforts are needed to improve the quality of education (Syaiful, 2003; Komalasari, 2015). Improving the quality of education can be seen in one way: from the ongoing learning process, both the methods and learning strategies used (Mulyasa, 2002; Trianto, 2010).

Based on observations made at Onate High School, Yapen Islands, Papua Province, it was found that student learning outcomes in biology subjects still needed to be improved. This is proven by the discovery of weaknesses, namely that students tend to be busy during learning so that students' concentration is not focused, students daydream a lot and are even sleepy, and teachers often explain material through teacher center learning so that no students want to ask questions, are unable to answer correctly. After asking questions from the teacher, active students will become more active, and vice versa; passive students will become more passive.

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The learning outcomes are based on the Minimum Completion Criteria (KKM); many class X students still need to achieve the classical KKM score, namely 70 for the Biology Subject.

The results of individual KKM achievements for Ecology in the 2020/2021 academic year show that there are still many students (approximately) 10-15 people in class with more interactive and exciting learning so that students learn actively and obtain maximum achievement results. Learning strategies needed to overcome problems ¬Teacher Center is a learning strategy that can create exciting and not dull learning situations.

One of the leading alternative learning strategies is (TPS) (cooperation learning strategy). This strategy is based on the homo homini spacious philosophy, which emphasizes that humans are social creatures (Mulyasa, 2005). This means that cooperation is a critical need; the TPS learning strategy is a learning strategy that is not the same as just studying in groups (Nana, 1990). The essential elements differentiate it from group division, carried out haphazardly (Nana, 2000). Positive interdependence means that a work's success depends on each member's efforts. This results in students feeling responsible (Ini'mah, 2014).

The learning strategy (TPS) departs from the basic idea of "getting better together," which emphasizes providing wider learning opportunities and a conducive atmosphere for students to acquire and develop knowledge, attitudes, values, and skills in society (Nurhadi, 2004). Through TPS learning strategies, students not only learn and accept what is presented by the teacher in the teaching and learning process but can also learn from other students who also have the opportunity to teach other students (Nurhadi, 2004).

Learning (TPS) consists of various types, one of which is the Think Pair Share type. Students think about the answer briefly and then share it with their partners or team members (Oemar, 1995; Nurhadi, 2004). In learning biology through the Think-Pair-Share type of learning strategy, it is hoped that students will be active because if students are active, their memory of what they are learning can last longer (Oemar, 2000).

The Think Pair Share type learning strategy is a type of learning strategy (TPS) designed to influence student interaction patterns. The structure is an alternative to traditional classroom structures (Rianingsih & Wardani, 2019). This structure requires students to work to help each other in small groups (2-6 members) and is characterized by TPS awards rather than individual awards (Rochiati, 2006). Think Pair Share explicitly defines procedures to give students more time to think, answer, and help each other (Rosita, 2013). The Think Pair Share learning strategy as a structure for TPS learning activities This technique allows students to work alone and collaborate with others (Sardiman, 2001). Another advantage of this technique

is the optimization of student participation. With a classical strategy that allows only one student to advance and share the results with the whole class (Sugiarto, 2017).

Based on the background of the problem described, research will be carried out under the title "Improving Biology Learning Outcomes on the Subject of Ecology Using the Think Pair Share Type Learning Strategy for Class X Science Students at Onate High School, Yapen Islands, Papua Province."

METHOD

This research is action research because the research was conducted to solve learning problems in the classroom. Action research begins with a systematic study of a problem. According to Kemmis (1988), action research is a form of self-reflective research carried out by participants in social situations (including education) to improve their practices. In this way, a comprehensive understanding of the practice and the situations in which the practice is carried out will be obtained. There are two main things in action research, namely improvement and involvement. This will direct the objectives of action research into three areas, namely: (1) to improve practice; (2) for professional development in the sense of increasing practitioners' understanding of the practices they carry out; and (3) to improve the conditions or situations in which the practice is carried out.

This research was carried out in January-April in the even semester of the 2021/2022 academic year at Onate High School, Yapen Islands, Papua Province. It is classroom action research, so it is carried out in collaboration with teachers in the field of biology who always strive to obtain optimal results through the most effective methods and procedures. This makes it possible to carry out repeated actions with revisions to improve student learning outcomes and students' understanding of the subject. Biology.

Researchers will work together with teachers in the field of biology, starting from 1) initial dialogue, 2) action planning, 3) implementation of actions, 4) monitoring (observation), 5) reflection (reflection) on each action taken, and 6) evaluation. This research refers to the classroom action research method (PTK), which can briefly be defined as a form of research that reflects the reason for carrying out specific actions to improve the quality of the learning process in the classroom.

The data obtained from the research results for each cycle is calculated by calculating the percentage of students' learning completeness. Individually, students are said to be complete if their score reaches 70 or more. Classically, it is said to be complete if learning completeness reaches 85% or more.

RESULT AND DISCUSSION

A. **Result**

This research is Classroom Action Research (PTK), where the researcher collaborates with the teacher in the field of study concerned as an observer. This research aims to improve students' biology learning outcomes on ecology in Class X Science at Onate Serui High School, Yapen Islands, Papua Province. Researchers designed learning by implementing the Think Pair Share Type Learning strategy. Learning is carried out in two cycles, each cycle consisting of three meetings.

Description of Implementation of Cycle II

1. Planning

At this stage, researchers analyze the syllabus by determining essential competencies and indicators to prepare a Learning Implementation Plan (RPP) for the learning process. Then, prepare a Learning Implementation Plan (RPP). Next, prepare learning resources such as worksheets and high school Biology books for class.

2. Action

In cycle I, learning was carried out in 3 meetings with each meeting lasting 2 hours (2 x 30 minutes). The implementation of the Think Pair Share Type learning strategy in class X is as follows:

a. Initial activity

Learning activities begin with greetings and prayers. Then the teacher introduces himself first, after that the teacher gives an apperception in the form of asking students questions about the ecosystem. and continued with the delivery of the learning objectives to be achieved. Then the teacher informs the students about their respective partners. In determining pairs or groups, teachers are guided by midterm exam scores or previous daily scores, namely students with high scores are paired with students with low scores.

b. Core activities

In4this activity the4teacher explains the subject matter being discussed, namely regarding ecosystems. Then the teacher conducts questions and answers to students regarding the material that has been presented. After that, the teacher gives paper containing questions to each student, each student will get the same questions as their partner. Then students are asked to be able to think independently (Thinking), this step can be developed by asking students to write down the results of their respective thoughts. After the students have finished finding the answers to the questions given by the teacher, the teacher then asks the students to join their partners to discuss and combine their opinions that have been obtained when they thought about the questions that were given previously (Pair). After discussing with their respective partners,

the teacher asks representatives from the pairs to share the results of their discussion in front of the class (Share). Teachers also facilitate students to compete healthily when presenting their learning results. One by one, representatives of the pairs came forward to present the results of the discussion. In this activity, the teacher's role is only as a facilitator and supervisor.

c. End activities

After the learning process is complete, the teacher gives posttest questions in the form of essays totaling 10 questions, then the students and teacher together make conclusions about the material that has been discussed. Before closing the lesson, the teacher gives students assignments as homework and says hello.

3. Observation

The third stage of this classroom action research is observation. Observations are carried out at the same time as the action is taking place. At this stage, students' learning outcomes are observed. Data on student learning outcomes can be seen in table 1 below.

Table 1. Learning Result Data for Cycle I Values

No.	Student's name	Score	Information
1.	Agus Kafiar	85	T
2.	Agus L. Warkawani	80	T
3.	Alfonsina Paai	85	T
4.	Argentino Aninam	55	TT
5.	Asyur Valdo Paai	75	T
6.	Carles P. Kawari	70	T
7.	Depit D. Abon	55	TT
8.	Derek Y. Kayani	65	TT
9.	Eliebes Unane	80	T
10.	Ermis S. Ayomi	80	T
11.	Fiktor R. Aruri	70	T
12.	Herman Worumi	45	TT
13.	Kalvin Manggaprouw	65	TT
14.	Loisa M. Wayoi	75	T
15.	Marlina Merani	50	TT
16.	Max G. Berotabui	60	TT
17.	Melkianus Wayeni	80	T
18.	Petrin Jamlean	60	TT
19.	Piter N. Warabai	45	TT
20.	Robert S. Ambokari	70	T
21.	Seliwanus Ayom	85	T
22.	Sisiriya Rumansara	80	T
23.	Susana Woisiri	80	T
24.	Tonci T. Kensimai	40	TT
25.	Wastyla O. Wangati	75	T
	Total	1710	
	Average	68,4	
	Classical completion percentage	60%	

Table 1 shows that 60% of results, or as many as 15 students, were declared complete by implementing the Think Pair Share type learning strategy. Meanwhile, 40% or 10 students

were declared incomplete in their studies. The percentages for completeness and incompleteness of student learning outcomes can be seen clearly in the diagram below.
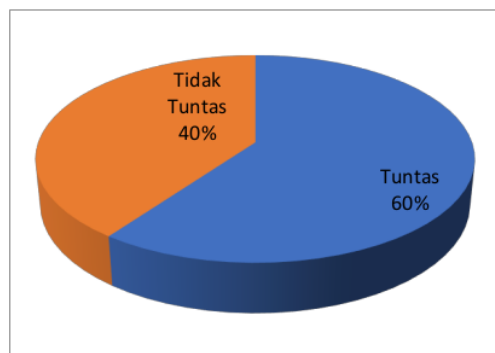

Figure 2. Learning outcomes of students who completed and did not complete cycle I

4. Reflection

Based on both Tables 1, the classroom action research process in cycle I was not successful because it had not reached classical completeness. These results indicate that classroom action research must be carried out in the next cycle, namely cycle II, with the aim of obtaining maximum learning results and achieving classical completeness.

The results of observations or data obtained in cycle I in learning activities using the Think Pair Share Type Learning strategy still contain several weaknesses, namely:

1. Students need to understand the learning model that is being carried out.
2. When discussing, there are still many couples who are less active, so when sharing the results of the discussion, their answers are still wrong
3. some students are still embarrassed to share the results of their discussions in front of the class

The actions to be taken in cycle II are:

1. Teachers must help students understand the learning strategies that will be used so that they are more enthusiastic about learning and are not confused when using the Think Pair Share (TPS) learning strategy.
2. The teacher provides unique guidance to couples who are still less active in discussions
3. Teachers must be more skilled at motivating students and stimulating them to have the courage to present the results of their work, whether using rewards in the form of prizes or praise, so that students will be more enthusiastic about participating in learning.

Description of Implementation of Cycle II

1. Planning Stage (Planning)

At this stage, the researcher carried out a syllabus analysis by determining essential competencies and indicators to prepare a Learning Implementation Plan (RPP) that will be used in the learning process, preparing a Learning Implementation Plan (RPP). Next, prepare learning resources such as worksheets and high school Biology books for class. And finally, give rewards or praise to students

2. Implementation Stage (Action)

In cycle II, learning was carried out in 3 meetings, each lasting 2 hours (2 x 30 minutes). The implementation of the Think Pair Share Type learning strategy in class X is as follows:

a. Initial activity

In the initial stage, the teacher reiterates the implementation of the Think Pair Share type (TPS) and provides apperception by reminding students and conveying the learning objectives. Then, the teacher informs the students about their respective partners. In determining pairs or groups, the teacher is guided by the midterm exam scores or previous daily scores; students with high scores are paired with students with low scores.

b. Core activities

In this activity, the teacher delivers lesson material by explaining ecosystems. Then, the teacher will ask students questions and give answers regarding the material that has been presented. After that, the teacher gives a paper containing questions to each student; each student will get the same questions as their partner. Then, students are asked to be able to think independently (Thinking); this step can be developed by asking students to write down the results of their respective thoughts. After the students have finished finding the answers to the questions given by the teacher, the teacher then asks the students to join their partners to discuss and combine their opinions obtained when they thought about the questions given previously (Pair). During this activity, some students still needed to concentrate on discussing with their partners. To overcome this, teachers provide students guidance, direction, and motivation to concentrate more. After discussing with their respective partners, the teacher asks representatives from the pairs to share the results of their discussion in front of the class (Share), starting from group 1 to the last group. After each pair representative has shared their discussion, the teacher praises the pair representative who dares to come forward by giving "applause."

c. End activities

After the learning process, the teacher gives posttest questions in the form of essays totaling ten questions. Then, the students and teacher will conclude about the material discussed. Before closing the lesson, the teacher gives students assignments as homework and says hello.

3. Observation (Observation)

The third stage of this classroom action research is observation. Observations are carried out at the same time as the action is taking place. At this stage, students' learning outcomes are observed. Data on student learning outcomes in cycle II can be seen in Table 2 below.

Table 2. Learning Result Data for Cycle II Values

No.	Student's name	Score	Information
1.	Agus Kafiar	95	T
2.	Agus L. Warkawani	90	T
3.	Alfonsina Paai	100	T
4.	Argentino Aninam	80	T
5.	Asyur Valdo Paai	85	T
6.	Carles P. Kawari	80	T
7.	Depit D. Abon	75	T
8.	Derek Y. Kayani	80	T
9.	Eliebes Unane	90	T
10.	Ermis S. Ayomi	95	T
11.	Fiktor R. Aruri	80	T
12.	Herman Worumi	70	T
13.	Kalvin Manggaprouw	80	T
14.	Loisa M. Wayoi	95	T
15.	Marlina Merani	65	TT
16.	Max G. Berotabui	80	T
17.	Melkianus Wayeni	95	T
18.	Petrin Jamlean	85	T
19.	Piter N. Warabai	65	TT
20.	Robert S. Ambokari	90	T
21.	Seliwanus Ayom	80	T
22.	Sisiriya Rumansara	90	T
23.	Susana Woisiri	70	T
24.	Tonci T. Kensimai	60	TT
25.	Wastyla O. Wangati	85	T
	Total	2060	
	Average	82,4	
	Classical completion percentage	88%	

Based on Table 2, student learning outcomes have increased compared to the previous cycle. Student learning outcomes in cycle II in class There were 22 students whose scores reached the KKM, while 3 other students had test scores below the specified KKM. The percentages for completeness and incompleteness of student learning outcomes can be seen clearly in the diagram below.
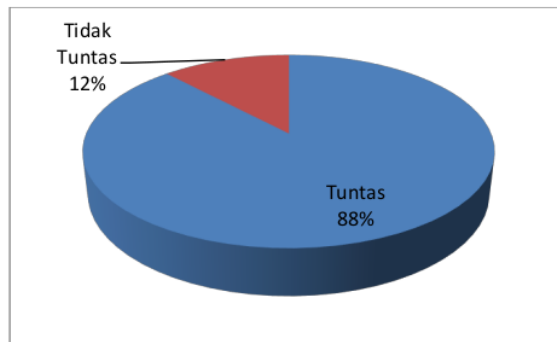
Figure 2. Student learning outcomes for completed and incomplete cycle II

4. Reflection

During the learning activities, students became more active in asking questions to teachers or friends and discussing in groups. They also became more able to solve problems in questions and present the results of their group work; apart from that, the percentage of students' classical completion was also achieved.

B. Discussion

Based on the research results, the student learning outcomes in Cycle I were obtained in Table 1. The average score obtained for Cycle I was sixty-eight-four. For classical learning completeness, it was Sixty, where fifteen students who had completed learning obtained scores by The minimum completion criteria (KKM)> eighty or above the average KKM. Ten more students still need to complete their studies by getting a score below the KKM < seventy. The results show that student learning outcomes have not been maximized or have yet to reach classical completeness, where classical completeness is eighty percent. Student learning outcomes are not optimal because many pairs of students still need to be more active when answering questions and are just adapting to the learning strategy implemented by researchers, namely the Think Pair Share (TPS) type learning strategy. Students are used to conventional learning strategies and are not involved in the learning process, or they can be said to be spectators in class. This differs from the objectives of the current curriculum, namely the 2013 curriculum, where the learning process requires students to be actively involved in teaching and learning. The learning outcomes obtained in Cycle I have yet to reach classical completeness, namely eighty-five, and the average value of learning outcomes for class students can experience improvement.

By the reflection results in Cycle I, the researcher determined that in Cycle II, learning emphasized directing students to read textbooks more actively and participate actively in learning activities, as well as motivating students to be more active in asking and answering.

In Cycle II, researchers still apply the same learning strategy, the Think Pair Share (TPS) type learning strategy, to improve and master classically and individually. The percentage of learning outcomes obtained by researchers from the results of Cycle II, namely the average score for students, is eighty-two-four. For classical completion, it is eighty-eight, where twenty-two students who have completed their studies have achieved a KKM score > Seventy, and three more students have not. Completed/did not achieve the KKM score because, during the learning process, these four students more often did things outside of learning activities, such as chatting with friends, and were less courageous in expressing opinions or asking questions about things they did not understand. Next, the researcher gave remedial treatment to 4 students who still needed to complete by giving additional assignments to four students so that these four students' grades were equal to the other students and could achieve classical completion.

Based on student learning results in Cycle II, there is an increase in the percentage of classical and individual completion from Cycle I, which was only sixty classical completions with an average score of sixty-four. There is an increase in classical completion with an average of eighty-two-four. This increase occurred because the teacher implemented an appropriate learning strategy in the learning process, namely the Think Pair Share learning strategy. By implementing this learning strategy, the learning process is no longer centered on the teacher; student involvement in the learning process is visible. Indirect student involvement will enable students to gain and explore their knowledge, which can be developed further (Murda, 2017).

The Think Pair Share learning technique is an excellent method to diversify the dynamics of class conversations, operating under the notion that all recitations or debates necessitate structures to manage the entire class. The methodologies employed in the Think Pair Share approach give students with additional time to contemplate, articulate their thoughts, and provide assistance to one another (Trianto, 2010). According to Rosita's (2013) research, the Think Pair Share Type Learning Strategy is designed to facilitate collaborative problem-solving, task completion, and group work among students. This strategy not only fosters the development of students' abilities through idea sharing within and between groups, but also enhances their teamwork skills.

CONCLUSION

From the research results that have been described, it can be concluded that implementing the Think Pair Share type learning strategy can improve student learning outcomes in class X Science at SMA Onate, Yapen Islands, Papua Province.

REFERENCES

_____. (2000). Dasar-dasar proses belajar mengajar. Bandung: Sinar Baru Algesindo.

_____. (2000). Psikologi belajar mengajar. Bandung: Sinar Baru Algesindo

_____. (2005). Implementasi kurikulum 2004. Bandung: Remaja Rosdakarya.

Anwar, H. (2007). Pendidikan inovatif. Retrieved from http://n1245.wordpress.com/2007/08/16/jurnal-pendidikan-inovatif/

Arief, A. (2005). Implementasi strategi (TPS) dalam pendidikan IPS di tingkat persekolahan. Retrieved from http://re/searchengines.com/0805/arief6.html

Dimyati, & Mudjiono. (1999). Belajar dan pembelajaran. Jakarta: Rineka Cipta.

Encik. (2007). Pembelajaran kolaboratif. Retrieved from http://ecopedia.wordpress.com/2006/01/12/Pengelolaan-kolaboratif-%E2%80%93-collaborative-%E2%80%93-management/

Hermiati, I. (2005). Proses pembelajaran (TPS) ". Retrieved from http://www.pikiranrakyat.com/cetak/0405/18/103.htm

Komalasari, K. (2015). Pembelajaran (TPS) konstektual. Bandung: PT Refika Aditama.

Mulyasa. (2002). Kurikulum berbasis kompetensi. Bandung: Remaja Rosdakarya.

Murda, N. (2017). Penerapan strategi pembelajaran Think Pair Share untuk meningkatkan kemampuan membaca intensif siswa. International Journal of Elementary Education, PGSD. Universitas Pendidikan Ganesha, Vol. 1, No. 1.

Musyahidin, A. S. (2015). Pengaruh perpaduan strategi pembelajaran TPS Think pair share dengan metode pembelajaran Player kelas XI Tav di SMK Negeri 2 Surabaya,

Nana, S. (1990). Penilaian hasil proses belajar mengajar. Bandung: Remaja Rosdakarya.

Ni'mah, A. (2014). Penerapan strategi pembelajaran Think Pair Share (TPS) dengan metode eksperimen untuk meningkatkan hasil belajar dan aktivitas belajar siswa kelas VIII MTS Nahdlatul Muslimin Kudus. Jurusan Fisika, Universitas Negeri Semarang, Vol. 3, No. 4.

Nurhadi. (2004). Kurikulum 2004. Jakarta: Gramedia.

Oemar Hamalik. (1995). Kurikulum dan pembelajaran. Jakarta: Bumi Aksara.

Rianingsih, A., & Wardani, K.W. (2019). Penerapan strategi pembelajaran TPS (Think pair share) dalam rangka meningkatkan keterampilan komunikasi siswa (2,XI) Jurnal Kajian Penelitian dan Pendidikan dan Pembelajaran.

Rochiati, W. (2006). Metode penelitian tindakan kelas. Bandung: Remaja Rosdakarya.

Rosita, I. (2013). Meningkatkan kerja sama siswa melalui pembelajaran TPS tipe Think Pair Share Jurnal Formatif, Matematika & IPA Universitas Indraprasta PGRI, Vol. 3 No. 1.

Sardiman. (2001). Interaksi dan motivasi belajar mengajar Jakarta: Raja Grafindo Persada

Sugiarto, Eko.

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GENERAL COMMENTS