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Application of Think Pair Share Type Cooperative Learning Model to Improve Creative Thinking Ability

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ABSTRACT

This research aims to determine the effect of the Think pair share (TPS) cooperative learning model in improving the critical and creative thinking abilities of class VI C students at SD Negeri 1 Harapan Jaya. The classroom action research method used includes initial reflection, action plan, action, observation, evaluation, and final reflection. The results of the research were concluded as follows: (a) Students' critical thinking skills experienced an increase after the implementation of the Think Pair Share cooperative learning model by looking at the learning outcomes scores in the mathematical learning achievement. (b) Mathematics result scores of class VI C students at SD Negeri 1 Harapan Jaya experienced an increase after giving action. In the first cycle of students who had a score of 75-100, there were 21 students out of 30 students, while the second cycle of students had a score of 75-100 a total of 28 students out of 30 students. had success with a percentage of 93.33% and as many as 28 students. (c) Mathematics grade level of students in class VI C of SD Negeri 1 Harapan Jaya is increasing. Cycle I pada has completeness with a percentage of 70%, while cycle II has completeness with a percentage of 93.33%. (d) Students' ability to think creatively experiences an increase after the implementation of the Think Pair Share cooperative learning model by looking at the results of observations carried out during ongoing learning activities. In conclusion, the TPS learning model is effective in improving students' critical and creative thinking abilities. Therefore, teachers are recommended to adopt this method in teaching mathematics to achieve optimal results.

Keywords: *Mathematics; Critical Thingking; Creative Thingking; Think Pair share*

INTRODUCTION

Education is a very important component of life for humans. If the quality of education is good, a country can achieve progress in the field of technology (Kadi & Awwaliyah, 2017). The quality of a country's education is influenced by many factors, namely students, teachers, infrastructure and the school environment. In this case, school becomes a place where teachers and students interact and communicate to gain knowledge. The teacher acts as both a teacher and a source of knowledge for students, and students act as people who are targeted to gain knowledge (Harjali, 2019). Education is an essential component in human life that influences a country's technological progress. The quality of education is determined by various factors such

as students, teachers, infrastructure and school environment. SISIDIKNAS Law no. 20 of 2003 defines education as a planned effort to develop the potential of students (Daria, 2022). The learning process involves the exchange of knowledge between teachers and students, with physical and mental involvement of students being the key to understanding. Teachers play an important role in choosing appropriate learning strategies to improve students' critical and creative thinking abilities. In the context of mathematics learning, this ability is very important because students often experience difficulties. Critical thinking helps students in solving and resolving problems, while creative thinking involves generating new, useful ideas (Maulana & Irawati, 2017).

Regarding the meaning of education as stated in the SISIDIKNAS Law no. 20 of 2003 that education is a conscious, planned effort to create a learning atmosphere and learning process so that students actively develop their potential to have religious spiritual strength, self-control, personality, intelligence, noble morals, and the skills needed by themselves, society, nation, and country. Basically the learning process is the exchange of knowledge, attitudes and skills through physical and mental activities between teachers and students. Student involvement both physically and mentally is a learning experience that can help students better understand the concept of learning. As professional educators, teachers are expected to be able to choose and use learning strategies that are appropriate to the subject matter so that they can improve students' critical and creative thinking abilities. The teacher's role is very important in the process of local learning, not just by eliminating the problems of learning, but the process of changing student behavior to achieve the goals of learning. Teachers must be role models for students, training intellectual and motor skills, and developing the ability to think critically and creatively throughout the learning process (Buan, 2021).

Mathematics education in Indonesia, especially at the primary and secondary school levels, often faces challenges in improving students' critical and creative thinking abilities. Critical and creative thinking skills are very important in learning mathematics, because these two abilities enable students to solve problems independently, find innovative solutions, and understand mathematical concepts in depth (Rosmala, 2021). However, the mathematics learning process often tends to be dominated by an approach that prioritizes memorization and routine, which hinders the development of students' critical and creative thinking abilities. Throughout the process of learning physical and mental learning, students often experience difficulties in carrying out tasks set by the teacher. This shows that the ability to think critically and creatively in the field of practical and technical thinking is very important for students who have the ability to think critically and understand the need for the ability to think critically, namely (al) Demanding things that prevent each individual from searching, choosing, and use informalism for their lives, (b) Every person always has to deal with various things in their choices so that every person is required to be able to think critically in carrying out many things that they have to do, (c) critical thinking is an aspect that can help In chooses Order problem every individual can mutually with each other in aldil as well as Capable of deep creates a mutual cooperation between other individuals. Critical thinking is the ability to analyze ideas in informal

evaluations to reach relevant conclusions. Students can learn to understand the principles of critical thinking if they are able to identify problems, evaluate them in forming ideas and complete tasks and then solve problems correctly (Pianda, 2018). (Cottrell, 2023) Several indicators emerged in critical thinking, namely 1) providing simple informality, 2) building weaknesses in reasoning, 3) concluding 4) providing further explanation, and 5) developing strategies in discussions. Meanwhile, creative thinking and creative thinking result in a person's ability to produce new and useful ideas, which is a combination of elements that make it possible to solve the problems posed. Creative thinking is a kind of thinking that tries to produce new ideas (Qomariyah & Subekti, 2021). According to (Sitepu, 2019) The ability to think creatively has several indicators including 1) analytical skills, 2) flexible skills, 3) original skills, 4) measuring skills, and 5) thinking skills.

To improve students' ability to think critically and creatively, teachers need to choose appropriate learning methods for learning. The method of social learning that is currently applied by teachers to students is the cooperative learning model. The simplest model of cooperative learning is the Think Pair share type. This model involves students in groups to solve their own problems in dealing with traffic jams and their own abilities in traffic (Kwok & Lau, 2014). Students do not just go through the material given, but they also take responsibility for providing the material to the members of their group (Rukajat, 2019). With this model of learning, students are encouraged to work cooperatively to learn and complete the tasks set by the teacher. The implementation of the Think-Pair-Share type cooperative learning model provides opportunities for students to think independently (think), which develops independent character in solving the problems that are given and also creates a work-in-progress calculation with traffic. Small groups build students' self-confidence. In this learning process, the teacher acts as a guide, facilitator and motivator. Students who experience difficulties are helped to overcome the problems so that the problems are more easily overcome and there are signs of failure in the learning process. mentor, helper and motivator.

To overcome this problem, many teachers try to apply various learning methods that are more interactive and encourage students to think actively. One model that is considered effective for improving critical and creative thinking skills is the Think Pair share (TPS) Cooperative Learning Model. This model emphasizes cooperation between students in solving problems, where students think individually first (Think), then discuss with their partner (Pair), and finally share the results of their discussion with the whole class (Share). The implementation of the TPS model is expected to create a more dynamic learning atmosphere, where students not only listen passively, but also actively interact with their classmates to solve problems. This model gives students the opportunity to develop their ideas, share opinions, and listen to and respect the opinions of others, which in turn can improve their critical and creative thinking skills.

However, even though this model has great potential, its implementation in classrooms still faces various obstacles. Some of the obstacles that often arise include

teachers' lack of understanding about how to manage discussion groups effectively, time limitations, and a lack of supporting facilities that support the implementation of cooperative learning. Apart from that, there are also challenges in measuring the extent to which this model can improve students' critical and creative thinking abilities in mathematics learning.

Therefore, research on the application of the Think Pair share Type Cooperative Learning Model to improve critical and creative thinking skills in mathematics learning is very important. It is hoped that this research can provide new insights for teachers in choosing and implementing more effective learning models, as well as contributing to the development of mathematics education in Indonesia. Based on the rationale in altals, the aim of this research was carried out to understand the influence of the application of the Think-Pair-Share type of cooperative social learning model to increase the ability to think critically and creatively in mathematics roadwork

METHOD

This research is a general action research carried out through self-reflection activities, with the aim of improving the performance of teachers so as to increase the ability to think critically and creatively in the field of physical learning by looking at students' learning outcomes. Current research is usually carried out using several cycles and obtains results that are prohibited (Prof. DR. H. Wina Sanjaya, 2016). According to (Tanjung et al., 2024) Classroom research is a type of research carried out by teachers, both individually and in groups, which is carried out in class and outside of class with the aim of cultivating student learning.

This research was carried out at SD Negeri 1 Harapan Jaya with subjects in the research including students in class VI C of SD Negeri 1 Halralpaln Jalyal, with a total of 30 students. These students were selected as research subjects for the basic mental health research with mathematics disorders. The students did not meet the minimum criteria for completeness. (KKM) is 75, while the average value obtained by the student is 65.5. The object of this research is students' ability to think critically and creatively in the physical education of class VI C students at SD Negeri 1 Halralpaln Jalyal. Meanwhile, the value in this research is the Think Pair Share cooperative learning model, which is the stupid value in the ability to think critically and creatively, which is the true value.

The research is carried out with a work flow that includes initial reflection, action planning, action, observation, evaluation, and final reflection. (Muhamad Anugrah, n.d.). Alwall's reflection by studying the problems that was experienced by class VI students in the study of mathematics learning. The evaluation is carried out to determine the success of students in the course of mathematics learning by giving the students an objective test which consists of 10 questions as well as a final reflection examination which is carried out after the course of action is completed. The collection technique in this research was carried out using formal observation in tests. The observation method is used to assess students' current level of physical learning, and

then tests are used to obtain students' learning results in mathematics learning by using a cooperative educational learning model of the Think Pair share type.

The success of the implementation of the Think Pair share type cooperative learning model can be seen from the results of student learning as an indicator of the ability to think critically, while the progress of student activity in the success of students' responses is an indicator of the ability to think creatively. The study results in the school were successful, at least 80% of the total number of students who were in the class achieved a minimum score of 75. Due to this, the process of the school was stopped, as long as the hall was not completed then the number of students who obtained a score of 75 or less In 80% of cases, the action needs to be repeated until the result is completed.

Table 1. Value Conversion

Value	Category
85 - 100	Very good
75 - 84	Good
65 - 74	Enough
55 - 64	Low
< 55	Very low

FINDINGS AND DISCUSSION

A. Impairment of Critical Thinking

The increase in students' critical thinking skills can be seen from the comparison of student learning outcomes in cycle I and cycle II. If student learning outcomes experience an increase in the learning process, Cycle II and Cycle I produce the Think Pair Share learning model, the results are.

The following are the results of cycle I student mathematics learning obtained by giving a test with 10 questions, material fractions with sub-points discussing mixed fractions in the operation of calculating fractions with same denominators, before the introduction of the Think Pair Share learning model.

Table 2. Cycle Learning Outcomes I

Value	Category	Frequency	Presentation (%)
0 – 74,5	Not Completed	9	30
75 - 100	Completed	21	70
Amount		30	100

The following is the table for the results of the second cycle of students' mathematical learning results which were obtained through administering a test with 10 items of various questions, various types of mathematics with sub-principles of calculation operations called talk same in the decimall field, after applying the learning model Think Pair Share.

Tabel 3. Cycle Learning Outcomes II

Value	Category	Frequency	Presentation (%)
0 – 74,5	Not Completed	2	6,67
75 - 100	Completed	28	93,33
Amount		30	100

Based on the two tables above, in the first cycle before the implementation of the Think Pair Share model, there were 21 students with a percentage of 30% who had a value of 75 - 100 so that they met the Completeness Criteria. The minimum (KKM) for 9 traffic persons with a percentage of 70% has a value of 0 - 74.5 so that it does not meet the Minimum Total Financial Criteria (KKM). Meanwhile, in the second cycle after the implementation of the Think Pair Share learning model, 30 students in class VI C of SD Negeri 1 Harapan Jaya numbered 28 students with a percentage of 93.33% with a value of 75 – 100 so that they met the Minimum Completeness Criteria. (KKM) for 2 traffic groups with a percentage of 6.67% had a value of 0-74.5 so it did not meet the Minimum Profitability Criteria (KKM).

From this analysis, it was concluded that the implementation of the Think Pair Share learning model has resulted in increasing students' critical thinking skills in mathematical learning, with a difference in the percentage of total results in cycle I and cycle II of 23.33% in the course of study. completeness is more than 85% or 93.33%.

B. Creative Thinking Ability

The increase in students' ability to think creatively can be seen in students' learning activities, including their ability to work together in a group, having a high level of intelligence, having balance, minerals, and high levels of behavior based on observations in the classroom.

The following is a table of the internal activities of students in cycles I and II which were obtained through observations in the classroom during the learning process.

Table 4. Observation Results on Student Learning Creativity

Category	Number of Students		Presentation (%)	
	Cycle I	Cycle II	Cycle I	Cycle II
Very Creative	-	5	-	16,67
Creative	13	21	43,33	70
Quite Creative	11	4	36,67	13,33
Less Creative	6	-	20	-
Very Less Creative		-		-

Based on the tally in altals, first cycle phase before the implementation of the Think Pair Share model, it shows that from 30 students of class VI C SD Negeri 1 Harapan Jaya, there are 6 people with a percentage of 20% including in the less creative category, 11 people with a percentage of 36.67% were successful in

the quite creative category, of the 13 people with a percentage of 43.33% were successful in the creative category. As long as cycle II paldal after the implementation of the paldal model Think Pair Share. This shows that out of 30 students in class VI C of SD Negeri 1 Harapan Jaya, there are 4 people with a percentage of 13.33% who are in the quite creative category, 21 students with a presentation of 70% who are in the creative category, in 5 students who are in the creative category. amounting to 16.67% of the results in the creative very category.

From this analysis, it can be concluded that the implementation of the Think Pair Share model has resulted in increasing students' ability to think creatively in maltemaltical learning by looking at the difference in the percentage of physical activity in cycle I and cycle II by 16.67% in terms of categories. creative very, 26.67% creative category paldal. While the quite creative category in cycle I was 36.67% and in cycle II it was 13.33%, this is because some students who previously entered the quite creative category experienced an increase in becoming creative students.

C. Advantages and Disadvantages of the Think Pair Share Model of Cooperative Distribution

The improvement that has been implemented in altals is called the cooperative learning process, Think Pair Share, which has been able to increase the students' skills in discussing in discussing the problems of the sesame group members and other groups in the class. Growing social media to exchange ideas and social media (Damayanti & Yulistiana, 2021). The application of appropriate learning methods can improve students' learning outcomes even more, so that in the course of their selection they must be considered for the students' needs. The Think Pair Share (TPS) Cooperative Learning Model is an approach that is widely used in education to improve critical, creative and collaborative thinking skills between students. Although this model has many advantages, there are several disadvantages that need to be considered. The following is a description of the advantages and disadvantages of the TPS model (Mulghalib, n.d.).

1. Advantages of the Think Pair Type Cooperative Learning Model

The advantage of the cooperative learning model, Think Pair Share, is that it provides students with more opportunities to think in generating ideas through the journey, then in the process there is a collaborative process among group members (Asmani, 2016). While the Think Pair Share cooperative road traffic model also has several disadvantages such as requiring the coordination of various traffic, the use of slow traffic must be considered, reducing traffic jams in traffic, the traffic delays tend to be small, and it also depends on the number of traffic jams. group.

a. Improve Critical and Creative Thinking Abilities

The TPS model gives students the opportunity to think individually first, allowing them to develop creative ideas and analyze problems critically.

The discussion process with a partner (Pair) enriches students' perspectives, and sharing thoughts with classmates (Share) can encourage them to explore various ways of solving problems.

b. Increasing Collaboration and Cooperation

This model encourages students to work together in pairs, which strengthens their social and communication skills. By working in small groups, students can share knowledge, solve problems together, and help each other understand the lesson material.

c. Enabling Student Participation

The TPS model avoids passive learning. Students are encouraged to participate actively at every stage, whether when thinking alone, discussing with a partner, or when sharing the results of their discussions. This is very important in student-centered learning.

d. Provide Sufficient Thinking Time

In the "Think" stage, students are given time to think independently before discussing with their partner. This allows students to process information well and develop deeper understanding before sharing it with others.

e. Increasing Students' Self-Confidence

By sharing opinions and thoughts with classmates, students feel respected and more confident. Discussions that occur in small groups can reduce fear or anxiety about speaking in front of the class.

2. Lack of Think Pair Type Cooperative Learning Model share

a. Requires Good Time Management

Although the TPS model provides opportunities for students to think and discuss, effective use of time can be a challenge, especially in classes with many students. Teachers must be able to manage time well so that each stage (Think, Pair, Share) runs smoothly without reducing the quality of learning.

b. Possible Unfocused Discussion

When discussing in pairs or large classes, sometimes students can deviate from the topic or the discussion becomes less focused. This can reduce the effectiveness of learning if there is not sufficient supervision or facilities from the teacher.

c. Dependence on Students' Social Skills

The success of the TPS model is highly dependent on students' social skills, such as the ability to work together, effective communication, and

mutual respect. Students who lack social skills or are inactive can reduce the effectiveness of this model.

d. Assists in assisting Inactive Students

In classes with less participating students, the TPS model may not be effective. Students who tend to be silent or do not have strong opinions may experience difficulty in the discussion stage or not be fully involved in learning.

e. Requires mature preparation from the teacher

In order for the TPS model to run smoothly, teachers must plan and prepare lesson materials well. Teachers also need to organize groups or pairs of students wisely so that discussions can run effectively. Insufficient preparation can hinder the smooth learning.

f. helps in Assessing Individually

Assessing the results of discussions in the TPS model can be difficult, because discussions often involve the contributions of many students in one pair or group. This may make it difficult for teachers to assess each student's performance individually.

The Think Pair Share (TPS) Cooperative Learning Model offers many advantages, especially in terms of improving students' critical and creative thinking skills, strengthening cooperation, and activating student participation. However, for this model to be implemented effectively, teachers need to pay attention to managing time, monitoring discussions, and students' readiness to work together. With good preparation and proper implementation, the TPS model can be a very effective tool in improving the quality of classroom learning.

CONCLUSION

Based on the research results in the discussion, it can be concluded as follows: (a) Students' critical thinking skills experienced an increase after the implementation of the Think Pair Share cooperative learning model by looking at the learning outcomes scores in the mathematical learning achievement. (b) Mathematics result scores of class VI C students at SD Negeri 1 Harapan Jaya experienced an increase after giving action. In the first cycle of students who had a score of 75-100, there were 21 students out of 30 students, while the second cycle of students had a score of 75-100 a total of 28 students out of 30 students. had success with a percentage of 93.33% and as many as 28 students. (c) Mathematics grade level of students in class VI C of SD Negeri 1 Harapan Jaya is increasing. Cycle I pada has completeness with a percentage of 70%, while cycle II has completeness with a percentage of 93.33%. (d) Students' ability to think creatively experiences an increase after the implementation of the Think Pair Share cooperative learning model by looking at the results of observations carried out

during ongoing learning activities. In conclusion, the TPS learning model is effective in improving students' critical and creative thinking abilities. Therefore, teachers are recommended to adopt this method in teaching mathematics to achieve optimal results.

REFERENCES

Asmani, J. M. (2016). *Tips Efektif Cooperative Learning: Pembelajaran Aktif, Kreatif, dan Tidak Membosankan*. Diva Press.

Buan, Y. A. L. (2021). *Guru dan Pendidikan Karakter : Sinergitas Peran Guru Dalam Menanamkan Nilai-Nilai Pendidikan Karakter di Era Milenial*. Penerbit Adab. https://books.google.co.id/books?id=nOcREAAAQBAJ

Cottrell, S. (2023). *Critical Thinking Skills: Effective Analysis, Argument and Reflection*. Bloomsbury Publishing. https://books.google.co.id/books?id=rXy0EAAAQBAJ

Damayanti, F., & Yulistiana, M. (2021). Penerapan Model Pembelajaran Think Pair Share Terhadap Siswa Smk. *Jurnal Online Tata Busana*, *10*(02), 75–83.

Daria, D. (2022). Jck Disharmonisasi Undang-Undang Nomor 20 Tahun 2003 Dengan Undang-Undang Nomor 12 Tahun 2012 Tentang Mata Kuliah Pancasila Sebagai Mata Kuliah Wajib Di Perguruan Tinggi. *Jurnal Cahaya Keadilan*, *10*(1), 13–21.

Harjali. (2019). *Penataan Lingkungan Belajar: Strategi untuk Guru dan Sekolah*. Seribu Bintang. https://books.google.co.id/books?id=VNgNEAAAQBAJ

Kadi, T., & Awwaliyah, R. (2017). Inovasi pendidikan: Upaya penyelesaian problematika pendidikan di Indonesia. *Jurnal Islam Nusantara*, *1*(2).

Kwok, A. P., & Lau, A. (2014). An exploratory study on using the think-pair-share cooperative learning strategy for students to solve mathematics problems in a hong kong primary school. *Technology, Creativity and Affect in Mathematical Problem Solving*, *300*.

Maulana, M., & Irawati, R. (2017). *Konsep Dasar Matematika dan Pengembangan Kemampuan Berpikir Kritis-Kreatif*. UPI Sumedang Press. https://books.google.co.id/books?id=MBhKDwAAQBAJ

Muhamad Anugrah, S. P. I. S. S. M. P. (n.d.). *Penelitian Tindakan Kelas: (Langkah-Langkah Praktis Pelaksanaan Penelitian Tindakan Kelas)*. Penerbit LeutikaPrio. https://books.google.co.id/books?id=9_6JDwAAQBAJ

Mulghalib, I. (n.d.). *MODEL PEMBELAJARAN KOOPERATIF TIPE THINK-PAIR-SHARE*. Alphiandi. https://books.google.co.id/books?id=xsuZEAAAQBAJ

Pianda, R. D. (2018). *Strategi & Implementasi Pembelajaran Matematika di Depan Kelas*. CV Jejak (Jejak Publisher). https://books.google.co.id/books?id=YCeLDwAAQBAJ

Prof. DR. H. Wina Sanjaya, M. P. (2016). *Penelitian Tindakan Kelas*. Prenada Media.

https://books.google.co.id/books?id=YMtADwAAQBAJ

Qomariyah, D. N., & Subekti, H. (2021). Analisis kemampuan berpikir kreatif. *Pensa: E-Jurnal Pendidikan Sains*, *9*(2), 242–246.

Rosmala, A. (2021). *Model-Model Pembelajaran Matematika*. Bumi Aksara. https://books.google.co.id/books?id=5xwmEAAAQBAJ

Rukajat, A. (2019). Pembelajaran contextual teaching and learning untuk meningkatkan mutu hasil pembelajaran. *Pionir: Jurnal Pendidikan*, *8*(1).

Sitepu, A. S. M. B. (2019). *Pengembangan kreativitas siswa*. Guepedia.

Tanjung, D. S., Pinem, I., Mailani, E., Ambarwati, N. F., Sepriano, S., Efitra, E., & Sari, I. K. (2024). *Penelitian Tindakan Kelas*. PT. Sonpedia Publishing Indonesia. https://books.google.co.id/books?id=vGEOEQAAQBAJ