

## Application of Think Pair Share Type Cooperative Learning Model to Increase Motivation and Mathematics Learning Outcomes Multiplication and Division of Integer Operations for Class VI Students of SDN Sombek

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### Abstract

*Mathematics learning achievement in elementary school (SD) tends to be lower than other subjects. This is because in mathematics learning activities teachers still use teacher-based learning and there is no innovation in mathematics learning. The choice of a teacher-centered learning model is one of the causes of the low motivation and achievement of students' mathematics learning. This study aims to determine the effectiveness of the application of the TPS (Think Pair Share) Cooperative Learning Model on Increasing Motivation and Mathematics Learning Outcomes for Class VI SDN Sombek with a total of 24 students. This research is a classroom action research (CAR). The instruments used in this research are motivation questionnaires and test sheets. Questionnaires were used to collect motivational data and test sheets were used to collect learning outcomes. The data analysis technique uses quantitative and qualitative data analysis techniques. The results showed that students' motivation and learning outcomes in mathematics subjects increased after learning using the Think Pair Share type of cooperative learning model.*

**Keywords:** Model Cooperative, Think Pair Share, Motivation, Outcomes learning

### Abstrak

Prestasi belajar matematika di sekolah Sekolah Dasar (SD) cenderung lebih rendah dibandingkan dengan Mata pelajaran lainnya. Hal ini disebabkan dalam kegiatan pembelajaran matematika guru masih menggunakan pembelajaran yang berbasis pada guru dan tidak ada inovatif dalam pembelajaran matematika. Pemilihan model pembelajaran yang bersifat berpusat pada guru menjadi salah satu penyebab rendahnya motivasi dan prestasi belajar matematika siswa. Penelitian ini bertujuan untuk mengetahui efektifitas penerapan model Belajar Kooperatif Tipe (Think Pair Share) (TPS) Terhadap Peningkatan Motivasi Dan Hasil Belajar Matematika Siswa Kelas VI SDN Sombek dengan jumlah siswa 24 orang. penelitian ini merupakan penelitian tindakan kelas (PTK). Instrumen yang digunakan dalam penelitian ini adalah angket motivasi dan lembar tes. Angket digunakan untuk mengumpulkan data motivasi dan lembar tes digunakan untuk mengumpulkan hasil belajar. Adapun teknik analisis data menggunakan teknik analisis data secara kuantitatif dan kualitatif. Hasil penelitian menunjukkan bahwa motivasi dan hasil belajar siswa pada mata pelajaran matematika meningkat setelah dilakukan pembelajaran dengan menggunakan model pembelajaran kooperatif tipe Think Pair Share (TPS).

**Kata Kunci:** Model Kooperatif, Think Pair Share, Motivasi, hasil belajar

### INTRODUCTION

Education is an important role for the development of a nation. The quality of a country's education is influenced by several factors. Such as teachers, learning resources and learning facilities. Teachers play an important role in helping to improve the quality of learning in the classroom. In improving the quality of teaching, teachers need to do innovative and creative things in the classroom. Based on Minister of National Education Regulation number 63 of 2009 concerning the education quality assurance system in the student-centered learning process by providing learning that is fun, challenging, motivating, interactive,

inspiring, providing space for initiatives to build creativity in accordance with the talents, interests and physical and psychological development of participants educate (Winaryo, 2020).

Educational problems always arise along with the development and improvement of students' abilities, the situation and conditions of the surrounding environment and the teacher's ability to manage learning, the influence of cultural information and advances in science and technology. To achieve this goal requires an effective and efficient teaching and learning process, therefore teachers should use models in teaching so that the lessons delivered are not boring and can be understood well and

meaningfully by students. This is as stated by Sardiman in Ujiwarsi (2021) said that good learning activities can support successful learning, good learning requires a good process and motivation, because without good motivation maximum learning results cannot be achieved in the learning process. Apart from that, learning motivation is a psychological factor that can foster passion, create feelings of joy and enthusiasm for learning (Gianistika, 2021). It is hoped that high learning motivation will get good learning results. The importance of learning motivation is formed to change learning in a more positive direction. Students can do more and more quickly in carrying out teaching and learning activities if they have good motivation within themselves, while students who are less motivated tend to be less enthusiastic about learning. (Destyana & Surjanti, 2021). Thus, it can be interpreted that the higher a person's level of motivation, the greater the effort that person makes in achieving success in learning (Pratama et al., 2019). In successful mathematics learning, student learning motivation is one of the supporting factors. As according to Hamalik in Kusumawardani et al., (2018) Effective learning is learning that provides opportunities to learn on your own or carry out your own activities, so that motivated teaching requires the teacher's creativity and imagination to make serious efforts to find relevant and appropriate ways to generate and maintain students' learning motivation. Teachers always try so that students end up having good self-motivation. This success will improve learning outcomes in accordance with the specified learning. In the learning process, students who have high motivation tend to consistently take actions in learning that support achieving planned goals (Juliya & Herlambang, 2021). Meanwhile, students' learning motivation greatly determines the success achieved by these students (Firmansyah, 2021). Students who have high learning motivation will be able to achieve high learning outcomes, but conversely, students who have low learning motivation tend to get low learning outcomes and will experience higher learning difficulties.

Mathematics is a universal branch of science that includes abstract ideas, notions and concepts

that cannot be separated from human life. Mathematics has expanded widely to include developments in science and technology (Hamid, 2018) It is hoped that mathematics learning at elementary school level will lead to reinvention in problem solving. This discovery means how students can find problems in significant steps or in accordance with the sequence of critical thinking steps. According to Brunner in fragrance (Mailili, 2018) explains that in mathematics learning students are required to be able to think critically in solving problems or various sources related to finding and solving problems. According to Djumariati (2021) Mathematical concepts written in a structured way in the form of symbols in the language chosen are very easy to understand and pay attention to.

Mathematics is one of the subjects that is often perceived by students as knowledge that has no benefit, besides that mathematics is often considered a difficult and boring subject. Some students still consider mathematics to be a very boring and scary subject (Nisa et al., 2021). This is reinforced by the statement Amir (2015) Some students still have a negative impression of mathematics lessons. The conditions above often occur as a result of a learning process that is monotonous and out of context with students' daily lives. Apart from that, there are still mathematics teachers who use 45 minutes of lesson time with an activity structure such as 1) 30 minutes – discussing previous assignments, 2) 10 minutes – giving new lesson material, and 3) 5 minutes – giving assignments to students. This approach is routinely carried out by teachers almost every day, so it can be categorized as a three M activity, namely boring, dangerous, and damaging student interest (Rangkuti & Sukmawarti, 2022).

The problems presented above show similarities with the results of observations made in class VI at SDN Sombek. The observation results show that students' learning motivation in taking lessons is still quite low, students are still less interested in mathematics lessons, this can be seen from the interest and activities in the class which tend to be lazy and bored which has an impact on student learning outcomes which are not in accordance with what is expected.

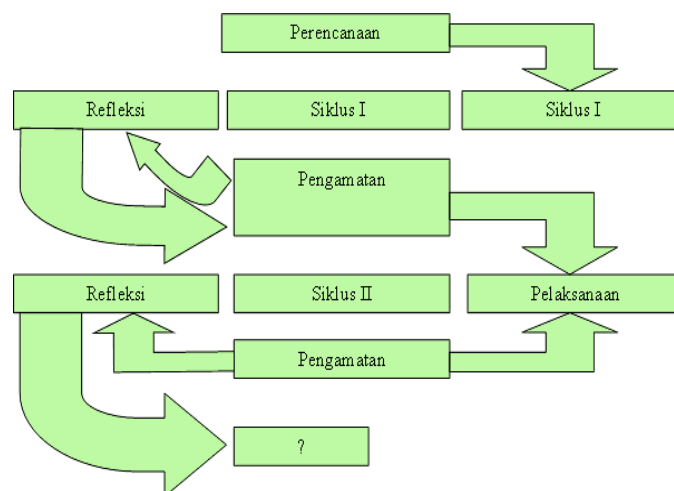
Based on the results of the study, this is the impact of the learning process in the classroom which is monotonous and does not involve students. Students are only used as learning objects without considering cognitive conditions and development. Apart from that, mathematics teachers still tend to be considered scary by some students. Another very visible impact is low learning outcomes.

This condition certainly requires the right solution so that the problem does not continue. One solution that can be used is to make innovations in the learning process, whether in terms of models, methods or techniques in learning. One model that can be used so that students can be actively involved in learning and increase student motivation to study mathematics is by adopting the TPS (Think Pair Share) Cooperative learning model. The Think-Pair-Share (TPS) cooperative learning model is an effective way to vary the atmosphere of class discussion patterns, with the assumption that all recitations or discussions require arrangements to control the class as a whole. (Jannah & Mudjiran, 2019). Research conducted Abidin et al., (2020) shows that there is a significant difference in mathematical problem solving abilities between the experimental and control classes after being taught using the TPS type cooperative learning model. This shows that mathematical problem solving abilities can be increased through the Think-Pair-Share (TPS) type cooperative learning model. This think pair share type cooperative learning model can increase students' motivation in learning (Sumarsya, Cici Veronika and Ahmad, 2020). This can be seen from the many theories and opinions that use the Think Pair Share (TPS) type cooperative learning model to increase students' motivation in learning.

Based on the description above, the aim of this research is to increase the motivation and mathematics learning outcomes of Class VI students at SDN Sombek using the Think Pair Share (TPS) cooperative learning model. The improved learning outcomes are cognitive learning outcomes.

## METHOD

The approach used in this study is a qualitative approach. Qualitative research is research conducted in a natural setting or in the context of an entity using the researcher's self as the key instrument. The type of research that will be carried out is classroom action research (Classroom Action Research), which is a researcher's activity to observe a learning activity that is given action in a class which aims to solve problems or improve the quality of learning in that class. According to Tampubolon in (Machali, 2022) also explained that Classroom Action Research is a primary need for educators to improve/improve the quality of their performance, which will have a positive impact on 1) increasing the ability to solve educational problems and real learning problems faced; 2) improve the quality of input, processes and learning outcomes, both academic and non-academic; 3) increase the professionalism of educators; and 4) implementation of research-based and sustainable improvement strategies. Research design that is planning, action, observation/evaluation, and reflection. The implementation of this research was carried out in two cycles, and these two cycles can be described in a model like the following image:



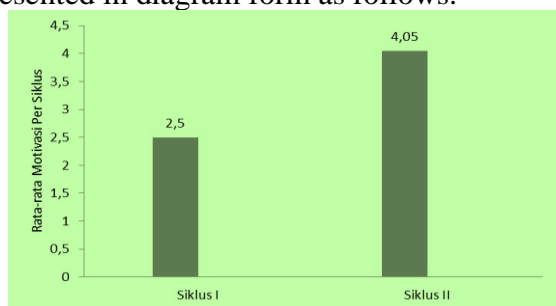
Picture 1. Classroom Action Research Flow

This research was carried out at Sombek Elementary School. The research subjects were Class VI of Sombek State Elementary School, totaling 24 people. Data collection techniques use tests and non-tests. Tests in the form of question sheets are used to measure student learning outcomes, while non-tests are in the

form of motivational questions to measure students' level of motivation after the learning process is complete. Data on motivation and learning outcomes were analyzed quantitatively. Indicators of the success of this implementation are guided by the following criteria. The level of success in this research is if the average student learning motivation is at least in the High category, and classical completion is 90%.

## RESULTS AND DISCUSSION

The results of the analysis show that there is a significant change or improvement from cycle one to cycle two in both the learning motivation variables and learning outcomes. This condition illustrates that learning using the Think-Pair-Share (TPS) cooperative model can have a positive effect on increasing student motivation and learning outcomes in mathematics subjects. For greater clarity, the data from the analysis are presented in diagram form as follows:



**Picture 1.** Learning Motivation Analysis Diagram per Cycle

This research shows that Mathematics learning using the Think-Pair-Share (TPS) cooperative learning model has a positive impact in increasing students' learning motivation. The learning motivation of students in cycle I showed an average score of 2.5 in the quite good category. The motivation possessed by students still needs to be improved so that the learning process in the classroom gets better, which will have an impact on student learning outcomes. The average score in cycle II of student learning motivation reached 4.05 in the very good category. The classical increase in students' learning motivation has been achieved.

The results of Mathematics learning activities through the Think-PairShare (TPS) cooperative learning model carried out over two cycles showed that in cycle I, the application of learning

provided good motivation. In the second cycle, explaining and using the Think-Pair-Share (TPS) type cooperative learning model is made more interesting and the learning is supplemented with the exchange of unique individual and group work results, thereby encouraging students to be more motivated in participating in Mathematics learning and making it easier for students. to grasp the lessons he has heard. The research results are strengthened by Normalasarie & Zulkarnain (2017) stated that the application of Think Pair Share (TPS) in learning can increase the motivation and learning outcomes of Sombek Elementary School students. Other research conducted by Sinaga (2021) shows that mathematics learning with the Think Pair Share (TPS) learning model which consists of 3 stages, namely: Think (think), Pair (pair), and Share (share/present) can increase students' mathematics learning motivation

Increasing students' learning motivation in studying mathematics also has an impact on mathematics learning outcomes. In general, students' mathematics learning outcomes increased and met the Minimum Completeness Criteria (KKM) from cycle I to cycle II. This shows that the Think-Pair-Share (TPS) learning model can improve students' mathematics learning outcomes. For more details, the results of the analysis of student learning outcomes are presented below.

**Table 1.** Development of Learning Outcomes for each Cycle

No	Cycle	The number of students	Average value	Criteria	Enhancement
1	I	26	66	Not Completed	28
2	II	26	94	complete	

The results of the analysis show that the mathematics learning process using the Think-Pair-Share (TPS) type cooperative model has an impact on improving student learning outcomes. In cycle I, the average student score was 66 with the criteria still being below the KKM. The low

mathematics score in cycle one was the impact of; 1) the cooperative learning process using the Think-Pair-Share (TPS) type is not yet optimal, and there are still several steps that have not been implemented, 2) students seem to experience boredom as indicated by several students whose eyes are not focused, chatting and playing with friends sitting on the bench, 3) students do not play an active role in constructing their knowledge during the learning process, 4) students rarely get the opportunity to discuss and share knowledge with their friends, 5) students rarely get the opportunity to implement the conceptual discoveries they have obtained so that the knowledge gained by students becomes less meaningful.

Findings that have an impact on student learning outcomes are reflected and improved by maximizing the implementation of the Think-Pair-Share (TPS) Cooperative Learning model so that learning is more enjoyable, invites students to concentrate on their lessons, fosters cooperation and mutual cooperation among students by inviting them to do learning which is meaningful. The improvement process in cycle II had an impact on increasing student motivation and learning outcomes, as can be seen in table 1, namely the average student score reached 94 and had achieved the targeted KKM. The think pair share learning model can improve students' mathematics learning achievement (Minarsih & Istiqomah, 2008). Several other studies also show that applying the Think Pair Share (TPS) type cooperative learning model can increase interest and learning outcomes (Litna & S. Seli, 2019). The results of this research show that the application of the Think-Pair-Share (TPS) cooperative learning model can increase students' mathematics learning activities and achievements.

## CONCLUSION

The mathematics learning process by implementing the Think-Pair-Share (TPS) cooperative learning model can have a positive impact on learning motivation and mathematics learning outcomes in class VI students at SDN Sombek. This is reflected in the achievement of research indicators, namely that the average student learning motivation is in the high

category, and student learning outcomes have achieved classical completeness  $\leq 90\%$ .

## SUGGESTION

The results of the research showed that there was a significant increase from cycle I to cycle II, however this research did not provide specific information regarding cognitive learning outcomes at what level there was an increase. So further research needs to be done.

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