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# EFFORTS TO INCREASE STUDENT LEARNING MOTIVATION THROUGH THE APPLICATION OF THE TEAM GAMES TOURNAMENT (TGT) MODEL IN LEARNING MATHEMATICS FOR CLASS V STUDENTS OF CIJANTUNG 05 MORNING ELEMENTARY SCHOOL

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**Abstract**

This study was conducted with the aim of being able to increase student learning motivation through the application of the Team Games Tournament (TGT) model in mathematics learning, the research subjects used were V grade students of Cijantung 05 Pagi public elementary school with a total of 26 students, the research method used was Classroom Action Research (CAR) with a collaborative system, this research was conducted for 2 cycles, to collect data in this study, namely through the results of questionnaire sheets and observation sheets. The results obtained from this study are an increase in motivation to learn mathematics, in cycle 1 student learning motivation increased with a percentage of 73.3% that previously in pre-cycle research student learning motivation was very low at 43.11% so that it fell into the category of very lacking and incomplete. Whereas in cycle 2 student learning motivation increased again with a percentage of 86.23%. So that this research was declared successful because it reached the good category (complete) by reaching the ideal value of 75. In addition, the increase in student learning motivation in the application of the Team Games Tournamnet (TGT) model can be evidenced from the results of student activity actions during 2 meetings in cycle 1 and cycle 2, the results of student activity actions shown in cycle 1 were 68% and 72% while in cycle 2 they were 77.3% and 85.3% of these results it can be said that the application of the Team Games Tournament (TGT) model can increase student motivation in learning mathematics, because the application of the model can help teachers in creating an interesting, fun learning model, and can develop motivation and self-confidence in their varied abilities.

**Keywords**: Mathematics learning, Learning motivation, Team games tournament model.

**Abstrak**

Penelitian ini dilaksanakan dengan tujuan untuk dapat meningkatkan motivasi belajar siswa melalui penerapan model *Team Games Tournament* (TGT) pada pembelajaran matematika, subyek penelitian yang digunakan adalah siswa kelas V SDN Cijantung 05 Pagi dengan jumlah 26 siswa, metode Penelitian yang digunakan yaitu Penelitian Tindakan Kelas (PTK) dengan sistem kolaborasi, penelitian ini dilakukan selama 2 siklus, untuk mengumpulkan data pada penelitian ini yaitu melalui hasil lembar angket dan lembar observasi. Hasil yang didapatkan dari penelitian ini yaitu mengalami peningkatan pada motivasi belajar matematika, pada siklus 1 motivasi belajar siswa meningkat dengan *presentase* 73,3% bahwa sebelumnya pada penelitian pra siklus motivasi belajar siswa sangat rendah yaitu 43,11% sehingga masuk kedalam kategori sangat kurang dan tidak tuntas. Sedangkan di siklus 2 motivasi belajar siswa meningkat kembali dengan *presentase* 86,23%. Sehingga penelitian ini dinyatakan berhasil karena mencapai kategori baik (tuntas) dengan mencapai nilai ideal 75. Selain itu peningkatan motivasi belajar siswa pada penerapan model *Team Games Tournamnet* (TGT) dapat dibuktikan dari hasil tindakan aktivitas siswa selama 2 pertemuan di siklus 1 dan siklus 2, hasil tindakan aktivitas siswa ditunjukkan pada siklus 1 sebesar 68% dan 72% sedangkan pada siklus 2 sebesar 77,3% dan 85,3% dari hasil tersebut dapat dikatakan bahwa penerapan model *Team Games Tournament* (TGT) dapat meningkatkan motivasi siswa pada pembelajaran matematika, karena pada penerapan model tersebut dapat membantu guru dalam menciptakan model pembelajaran yang menarik, menyenangkan, serta dapat mengembangkan motivasi maupun rasa percaya diri sswa terhadap kemampuannya yang bervariasi.

**Kata kunci:** Pembelajaran matematika, Motivasi belajar, Model team games tournament

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**INTRODUCTION**

Discussing education is inseparable from the quality of learning, at present education is very dependent on the educator's design of learning resources that are applied to get a more effective and efficient teaching process. One of the definitions of education is that it can be one of the methods to apply awareness to each individual in the community through direction, training, and learning carried out inside and outside the school. It aims to build a place of learning that allows educators to provide training to students and conduct measurements and surveys on the level of student learning outcomes (Sarah Safitri & Jusra, 2021).

According to the Education Law Number 20 of 2003 "education system" which explains that, the learning process can change behavior and can develop the potential of each student to become a person who is devoted to the creator of nature (God), virtuous, intelligent, creative and responsible. However, in reality, in the educational process, especially in teaching and learning activities, educators are more conventional, which refers to educators as the main source of learning without involving students in every activity, which causes low student learning motivation, because educators do not care about the quality of learning, so educators cannot achieve a good education system (Putri et al., 2019).

In the world of education, motivation is the most important role in the learning process, because through the role of motivation, the learning process can run faster. So that motivation can be an influence for a person on their behavior, both in learning, working, and other aspects of life. Motivation to learn is the tendency of students to take part in learning activities that are driven by the desire to achieve good learning results. the growth of motivation to learn is based on the existence of intrinsic elements (within students) such as: the desire to succeed and want to be accepted by others, and extrinsic elements (influences outside the student) such as: gifts, praise, encouragement, and pressure from others.

According to Febrita & Ulfah (2019) in every learning activity, student learning motivation is a supporting factor for their achievement and interest in learning the subject. This can be interpreted that high student motivation will have an impact on the efforts and efforts made by these students. Learning can be defined as an experience that can change a person's behavior to be relatively permanent. In addition, learning can have the ability to associate various other information (Belajar dan Pembelajaran, 2022).

However, the learning process does not always run effectively, especially in mathematics learning, as felt by high-class students, namely grade V students with a total 26. In this number, not all students understand the delivery of material from educators, causing students to think that learning mathematics is very boring, difficult to learn, and required to be able to master numeracy. This can be one of the problem factors that must be handled by educators as the main learning resource in the classroom, because basically learning mathematics at the elementary school level students are taught to see, hear, read, follow orders, practice and complete according to the direction of the educator.

If the problems experienced by students are not immediately overcome, students will not have confidence, interest and low motivation to learn, this can cause students to be lazy to learn, so that it becomes one of the factors that the class is not conducive. Not only that, educators can change the delivery method in the learning process, so that students can understand the delivery of educators, so that students do not experience various difficulties in the math learning process. In addition, educators can build mathematics learning activities to be more active, effective, fun, and can foster student interest in learning, one of which is through the use of learning methods or models tailored to the curriculum and student needs, such as group activities or games that can educate students in mathematics learning (Ujiati Cahyaningsih, 2017).

From the problems faced by class V students, the authors are interested in conducting research, with the aim of increasing student learning motivation in mathematics learning through the application of the Team Games Tournament (TGT) model in mathematics learning, from the background of the problems faced, it is formulated "whether through the application of the Team Games Tournament (TGT) model can increase student learning motivation in mathematics learning".

Team Games Tournament (TGT) type cooperative learning model is an academic game-based learning model, where students will be formed in a group of 5-6 people with varying abilities, so that students who have low abilities will play an active role in learning, because this learning model all members in each group will be involved in working on tasks that are tournament or competition with other groups.

In the process of learning mathematics, the Teams Games Tournaments (TGT) model is expected to be an effort to increase student learning motivation, because it can build a

pleasant learning environment, besides that it can increase students to play an active role in learning involvement, responsibility, healthy competition, and the spirit of cooperation (Faridatul Munawaroh et al., 2023).

## METHOD

This research uses the Classroom Action Research (CAR) method, which is a research activity in the classroom that aims to solve teacher learning problems, improve the quality of learning outcomes, and improve learning practices in the classroom by involving systematic steps in the form of observation, reflection and action to achieve continuous improvement (Gea Aprilyada et al., 2023).

The subjects of this study were fifth grade students at Cijantung 05 morning public elementary school, with a total of 26 students consisting of 13 male students and 12 female students. In this study, the researcher and the grade teacher conducted a collaboration system in the classroom to obtain data during the research. The approach in this study uses a quantitative descriptive approach and data collection techniques through observation sheets which are divided into two categories, namely teacher observation sheets which aim to determine the results of teacher actions through lesson plans and student observation sheets which aim to determine student actions during teaching and learning activities, and questionnaire sheets which aim to determine student responses regarding their learning motivation that has been done through action.

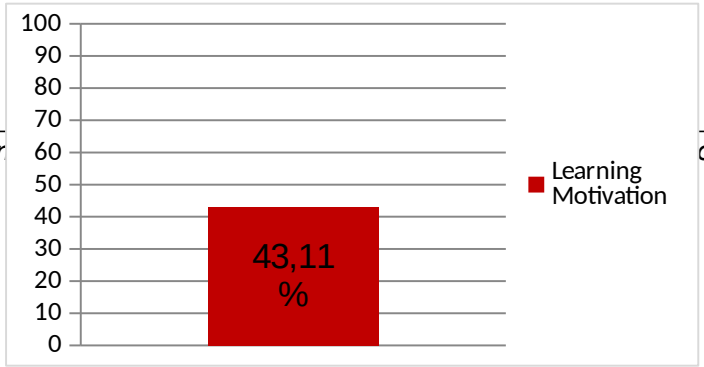
This research was conducted for 2 cycles, but before the action was taken, the researcher conducted a pre-cycle stage to measure and compare student learning motivation before and after the action. The model that will be used in this class action research will lead to the Kemmis & Mc Taggart model, the stages that will be passed in each cycle are planning, action, observation and reflection (Ani Widayati, 2016) .

## RESULTS AND DISCUSSION

Based on the results of observations from research that has been carried out on May 16-28, 2024 at SDN Cijantung 05 Pagi, regarding efforts to increase student learning motivation in learning mathematics through the application of the Team Games Tournament (TGT) model, the results of research from pre-cycle, cycle 1 and cycle 2 are as follows:

In the research action in the pre-cycle, the researcher and the class teacher collaborated to find out the motivation of students to learn during math learning in class V, this activity was carried out in 1 meeting. In this study the researcher acted as a teacher and the class teacher acted as an observer to observe the process of learning activities, before the research was carried out, the researcher first prepared a lesson plan to facilitate the teaching and learning process in achieving learning objectives, learning media used to convey material easily so that learning can run effectively and efficiently such as the use of visual, audio visual and visual-audio learning media. Then the researcher also prepared student worksheets, questionnaires and field notes sheets. Learning activities took place in the pre-cycle stage for 2x35 (70 minutes) using the lecture method. The learning process was carried out in accordance with the steps in the lesson plan, at the final stage of learning the researcher gave a questionnaire sheet to 26 students in class V as a tool to measure their learning motivation.

From the results of students' questionnaire responses, the results show a result of 43.11%, it can be stated that student learning motivation in learning mathematics is very low, because the score obtained by each student does not reach the ideal value of 75. so that the completeness of student learning in the pre-cycle, is in the category of incomplete, so further action must be taken to be able to increase their learning motivation. The incomplete learning in this pre-cycle was motivated by several problems as follows: Students are not enthusiastic about the learning process, students' confidence is very low, group activities that rely on each other, boredom, dislike math learning, chatting and the classroom is not conducive.



**Graphs 1. Pre-cyle Learning Motivation**

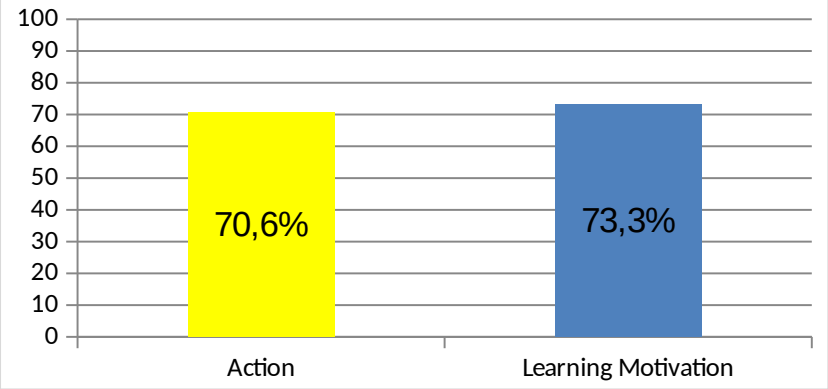
From the results of the student learning motivation chart in the pre-cycle, the researchers and observers reflected to make improvements by taking further action to cycle 1, because student learning motivation fell into the very low and incomplete category, student learning motivation is said to be complete if it reaches 80% - 89% in the good category (complete) and reaches the ideal score of 75 on the results of the learning motivation questionnaire response in each cycle, this can be seen in table 1 learning motivation assessment criteria.

**Table 1. Criteria for Average Result Level of Learning Motivation**

| Average Yield Read | Categories | Descriptions |
|---|---|---|
| 90% - 100% | Very Good | Completed |
| 80% - 89% | Good | Completed |
| 65% - 79% | Simply | Completed |
| 55% - 64% | Less | Not Completed |
| 0 – 54% | Verry Less | Not Completed |

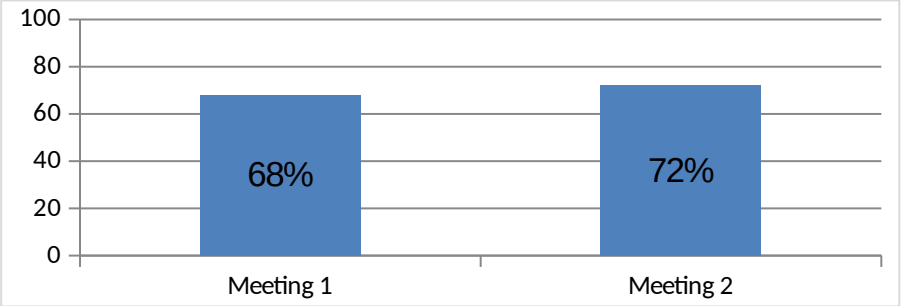
Cycle 1 action is a corrective action from the pre-cycle, so that student learning motivation increases, in this cycle researchers apply a fun and effective learning model, namely by applying the Team Games Tournament (TGT) model. Research in cycle 1 was carried out in 2 meetings, before carrying out the action the researcher prepared teaching modules, interactive media in the form of animated videos, teacher and student observation sheets, questionnaire sheets, student worksheet, and props in the form of domino cards, learning materials to be implemented are about addition and subtraction of fractions with different denominators. At the first meeting the researcher delivered the material, question and answer activities, working on student worksheets and giving homework assignments, and at the second meeting the researcher continued the learning of the first meeting, explaining the instructions for the games tournament and the application of Team Games Tournament (TGT).

After the researchers took action for 2 meetings, the results of the action received an average percentage of 70.6% while the results of the student questionnaire response through the application of the Team Games Tournamnet (TGT) learning model received an average percentage of 73.3% from these results it can be stated that the application of the TGT model in mathematics learning has increased, but from this increase, 14 students are complete and there are still 12 students who have not completed, because these 12 students scored the questionnaire results below 75. In accordance with the level of percentage criteria set out in table 1, then in cycle 1 this is included in the sufficient category (complete), because there are still 12 students who have not reached the completeness value and are in the sufficient category, then the researcher continues the corrective action to cycle 2, to achieve the ideal value of 75 with a good category (complete) in accordance with the previously established categories.




**Graph 2. Action Results and Learning Motivation Cycle 1**

The increase in student learning motivation in cycle 1 was 30.19% from the pre-cycle results, this was motivated by the results of field notes during the research, namely: some students already have confidence, students have started to be enthusiastic about learning math, students have started to actively ask questions, the classroom has started to be conducive, but there are still some students who chat, and there are still some who depend on friends. For the application of the learning model in the form of tournament games, students are still fairly long, because there are still some students who have not mastered the props in the form of domino cards, therefore, the increase in student learning motivation can be proven through the comparison of the average percentage of student actions for 2 meetings, as follows:

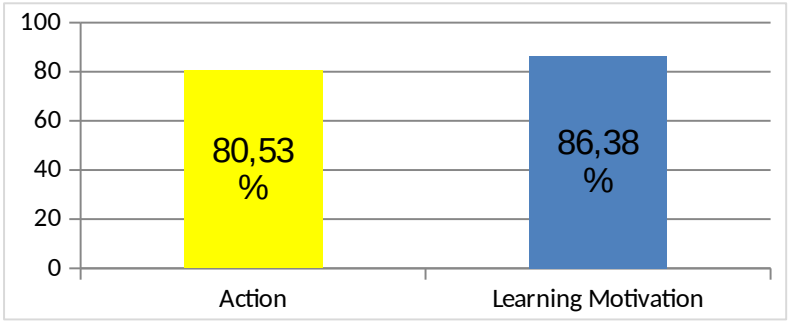



**Graph 3. Student Action Activity Cycle 1**

he action in cycle 2 is a follow-up to the improvement of cycle 1, from the results that have been obtained in cycle 1, researchers and observers evaluate so that the action in cycle 2 can increase student learning motivation in accordance with the predetermined category. Because the results of the previous action were 70.6% which stated that the action was not fully completed, both from the delivery and application of the learning model, the researchers renewed the delivery of learning by using interactive media in the form of power points and singing fraction songs.

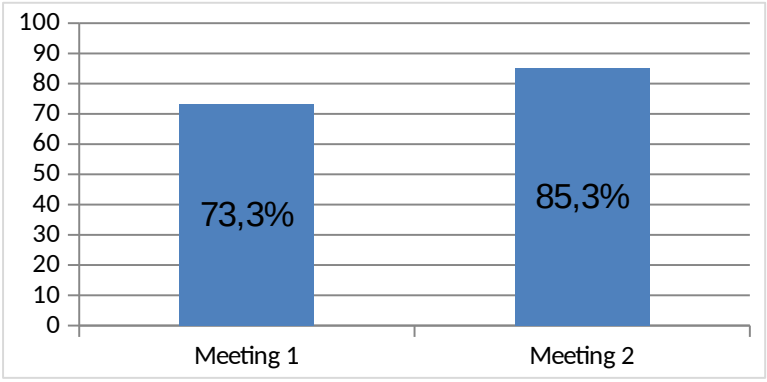
Cycle 2 action was carried out with 2 meetings, the material used was still the same as in the previous cycle, namely addition and subtraction of fractions with different denominators. Before the research was carried out, researchers prepared teaching modules, teacher and student observation sheets, lkpd, questionnaire sheets, interactive media in the form of power points, and props in the form of domino cards. At the first meeting the researcher delivered the material supported by interactive media, singing fraction songs, working on lkpd while at the second meeting the researcher continued the learning of the first meeting by reviewing the material, asking questions and applying the Team Games Tournament model.

From the results of the actions that have been carried out for 2 meetings, the average percentage obtained in cycle 2 is 80.53% so that the results of this action have increased from cycle 1 by 9.93%. besides the results of student questionnaire responses to the application of the Team Games Tournament (TGT) model in mathematics learning show an average percentage of 86.38%, so that student learning motivation has increased by 13.08% from cycle 1. Then student learning motivation is in the good category (complete) according to the predetermined category, and 12 students who have not been completed in cycle 1, experience completeness in cycle 2 by reaching above the ideal score of 75.




**Graph 4. Action Results and Learning Motivation Cycle 2**

The increase in student learning motivation actions in cycle 2 is very significant, this can be proven through the results of field notes as follows: students have helped each other and there is no dependence on friends, increased self-confidence in each individual, a conducive classroom, no students chatting, increased learning motivation, students like the learning model applied, students are used to the group model and the application of the Team Games Tournament (TGT) model has increased, because students have mastered the tournament games, so they can complete the tournament quickly. The following is the average percentage of student actions during learning which can be used as evidence that student learning motivation increased in cycle 2.



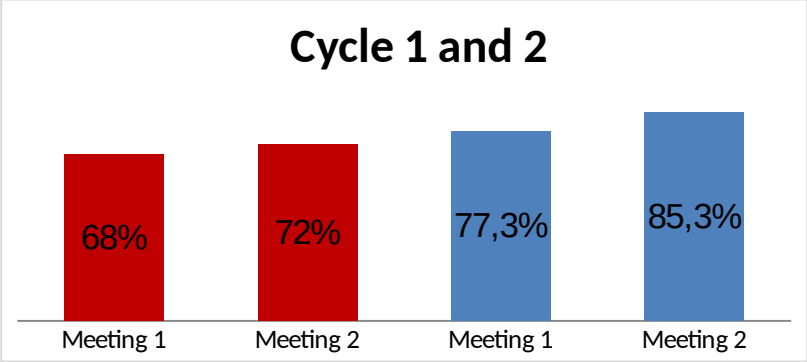

**Graph 5. Student Action Activity Cycle 2**

Because the results of learning motivation in cycle 2 are in the good category (Tuntas) and reach the ideal value of 75, the cycle 2 action research is not continued to the next improvement cycle, because this category has entered into successful research results and in accordance with the initial achievement of the average percentage criteria for learning motivation that has been determined. The completeness of learning motivation in cycle 2 is supported by the renewal of the learning plan in the previous cycle, such as in the pre-cycle

stage of the student learning plan using only lecture and group methods without being supported by methods that can arouse student learning motivation, while in cycles 1 and 2 at each meeting the researcher updates the learning plan supported by learning media and the application of the Team games Tournament (TGT) model.

In cycle 1, the media used in delivering the material is by showing animated films about fractions and in cycle 2 the media used in delivering the material is showing power points and supported by singing fractions together. and for student worksheets given in cycle 2 are more hots than in cycle 1, but with the same number of questions, namely 5 essay questions, this is because at the second meeting in cycle 1 students already understand the material about fractions. Therefore, by making updates to the learning plan, media and student worksheets is one of the supporting factors for increasing student learning motivation at each meeting through the application of the Team Games Tournament (TGT) model.

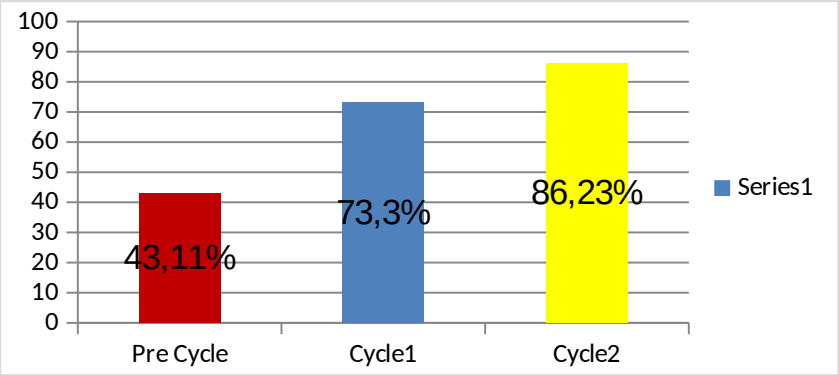
The following are the results of the comparison of student action activities in cycles 1 and 2 on student learning motivation which has increased through the application of Team Games Tournament (TGT) model.




**Graph 6. Comparison of Student Activity Action Results**

From the results obtained through research activities, the application of the Team Games Tournament (TGT) model in learning Mathematics can increase student learning motivation which was initially low to increase, after the actions of cycle 1 and cycle 2, because it falls into the category of criteria for the average percentage of learning motivation in the category 80% - 89% Good (Completed) with the achievement of the ideal score of 75, so that this study succeeded in increasing the motivation to learn mathematics

of grade V students of SDN Cijantung 05 Pagi. The following is a comparison chart of student learning motivation from pre-cycle, cycle 1 and cycle 2.




**Graph 7. Comparison of Learning Motivation**

From the results of the comparison graph above that student learning motivation from pre-cycle to cycle 1 reached 30.19% and the achievement of student learning motivation in cycle 1 to cycle 2 reached 12.93%.

## CONCLUSION

Based on the results of research that has been carried out in the pre-cycle, cycle 1, and cycle 2 through the application of the Team Games Tournament (TGT) model as an effort to increase student learning motivation towards learning mathematics shows significant improvement results, that previously student learning motivation was very low this can be proven in the pre-cycle results which show the average percentage of student learning motivation is 43.11%, therefore researchers took corrective action to cycle 1 the results obtained through action were 70.6% and learning motivation increased by 73.3%, because student learning motivation in cycle 1 was fairly complete but with a sufficient category and there were still 12 students who had not reached the ideal score of 75 in completeness.

Then the researchers took corrective action to cycle 2, the results of the action showed the results of 80.53% and student learning motivation increased to 86.23%, so that student learning motivation in cycle 2 experienced completeness in the good category. Student learning motivation in cycle 1 and cycle 2 has increased by 12.93%,. The increase in learning motivation can be seen through the results of student activity actions for 2 meetings, in cycle 1 showing the results of 68% and 72%, while in cycle 2 the results of

student activity actions showed the results of 77.3% and 85.3%, the increase was also supported by the use of a more effective learning plan, interactive learning media and tools in the form of domino cards in the game tournament, so that this research is said to be successful in increasing student learning motivation through the application of the Team Games Tournament (TGT) model in learning grade V mathematics Cijantung 05 morning public elementary school.

## ACKNOWLEDGMENTS

Based on the results of the study, several suggestions can be made, namely: (1) Student learning motivation that has increased can be maintained well in mathematics learning and other learning, (2) Teachers are advised to use interesting and varied learning models and can provide optimal guidance and direction to students, so that students can develop learning motivation in the process of teaching and learning activities, (3) For schools it is advisable to support interesting and fun learning models to develop student learning motivation, this form of support can be in the form of facilities and infrastructure to support the quality of learning.

## REFERENCES

Ani Widayati. (2016). Penelitian Tindakan Kelas. *Jurnal Pendidikan Akuntansi Indonesia*, *6*(1). https://journal.uny.ac.id/index.php/jpakun/article/view/1793/1487

Belajar dan Pembelajaran. (2022). Google Books. https://books.google.co.id/books?hl=id&lr=&id=b0BgEAAAQBAJ&oi=fnd&pg=PA9&dq=belajar+pembelajaran&ots=B7x3n2Zqkj&sig=Znwj4aTKH7qSZilfybNArVEIbS0&redir_esc=y#v=onepage&q=belajar%20pembelajaran&f=false

Faridatul Munawaroh, Fitria Dwi Prasetyaningtyas, & Filiana Dian Arlinda. (2023). Upaya Peningkatan Hasil Belajar Siswa Melalui Model Pembelajaran Cooperative Learning Tipe Team Game Tournament (TGT) Pada Mata Pelajaran Matematika Kelas V SD Negeri Ngaliyan 03. *JIP: Jurnal Ilmu Pendidikan*, *1*(2), 314–341. https://jip.joln.org/index.php/pendidikan/article/view/37

Febrita, Y., & Ulfah, M. (2019). Peranan Media Pembelajaran untuk Meningkatkan Motivasi Belajar Siswa. *Diskusi Panel Nasional Pendidikan Matematika*, *5*(1). https://proceeding.unindra.ac.id/index.php/DPNPMunindra/article/view/571/160

Gea Aprilyada, Muhammad Akbar Zidan, Nurlia nurlia, Nurlia Nurlia, Risna Adypon Ainunisa, & Widi Winarti Widi. (2023). Peran Kajian Pustaka dalam Penelitian Tindakan Kelas. *Jurnal Kreativitas Mahasiswa*, *1*(2), 165–173. https://www.riset-iaid.net/index.php/jpm/article/view/1449

Putri, B. B. A., Muslim, A., & Bintaro, T. Y. (2019). Analisis Faktor Rendahnya Minat Belajar Matematika Siswa Kelas V Di Sd Negeri 4 Gumiwang. In *Jurnal Educatio FKIP UNMA* (Vol. 5, Issue 2, pp. 68–74). https://doi.org/10.31949/educatio.v5i2.14

Sarah Safitri, O., & Jusra, H. (2021). *Analisis Kesulitan Belajar dan Self Confidence Anak Berkebutuhan Khusus tipe Slow Learner Dalam Pembelajaran Matematika JPMR*. *06*(02), 68–80. https://ejournal.unib.ac.id/index.php/jpmr

Ujiati Cahyaningsih. (2017). Pengaruh Model Pembelajaran Kooperatif Tipe Team Games Tournament (TGT) Terhadap Hasil Belajar Matematika Siswa Sd. *Jurnal Cakrawala Pendas*, *3*(1). https://doi.org/10.31949/jcp.v3i1.405

UU Republik Indonesia. (2003). Undang-Undang Nomor 20 Tahun 2003 Tentang Sistem Pendidikan Nasional (Lembaran Negara Republik Indonesia Tahun 2003 Nomor 78, Tambahan Lembaran Negara Republik Indonesia Nomor 4301). *UU No. 20 Tahun 2003 Sistem Pendidikan Nasional*, 1–31