



Teams Game Tournament (TGT) Method In Mathematics Subject Multiple Material In Class IV MI Hidayatus Sibyan Tuban

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Pendidikan Guru Madrasah

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ABSTRAK

Secara umum, matematika merupakan mata pelajaran yang dianggap sulit dan tidak disukai oleh siswa. Matematika sulit dipahami, dipahami dan dipelajari, sehingga pelajaran matematika menjadi menakutkan, membosankan dan kurang menarik bagi siswa. Agar kesan itu lama kelamaan hilang, guru dituntut mau dan mampu merancang dan melaksanakan kegiatan pembelajaran yang menarik minat dan perhatian siswa. Metode TGT pertama kali dikembangkan oleh David De Vries dan Keith Erdward. Perkalian dianggap sulit oleh siswa. Metode Teams Game Tournament (TGT) pada materi perkalian diterapkan di kelas IV MI Hidayatus Tuban. Metode penelitian kualitatif dengan teknik wawancara, observasi, dan dokumentasi. Subyek penelitian ini adalah seluruh siswa kelas IV yang berjumlah 18 orang dan dua orang guru yaitu guru kelas dan kepala sekolah. Hasil penelitian menunjukkan bahwa dengan menggunakan metode Teams Game Tournament (TGT) meningkatkan hasil belajar siswa yang berhasil mencapai skor dengan standar skor minimal KKM70 dimana 3 anak mendapat skor 75 dari sebelumnya skor 45, 2 anak mendapat skor 75 dari skor sebelumnya 55, 2 anak mendapat skor 80 dari sebelumnya 65, 2 anak mendapat skor 80 dari 70 sebelumnya, 3 anak mendapat skor 85 dari sebelumnya 80, 2 anak mendapat skor 90 dan 95 dari sebelumnya 85, dan 4 anak anak yang mendapat nilai 100 dari sebelumnya 87.

ABSTRACT

In general, mathematics is a subject that is considered difficult and disliked by students. Mathematics is difficult to understand, understand and learn, so mathematics lessons become scary, boring and less attractive to students. So that the impression is gradually lost, teachers are required to be willing and able to design and implement learning activities that attract students' interest and attention. The TGT method was first developed by David De Vries and Keith Erdward. Multiplication is considered difficult by students. The Teams Game Tournament (TGT) method on multiplication material is applied in class IV MI Hidayatus Tuban. Qualitative research methods with interview, observation, and documentation techniques. The subjects of this study were all 18 students in Class IV and two teachers, the class teacher and the principal. Results showed that using the Teams Game Tournament (TGT) method improved learning outcomes of students who managed to score with a minimum standard score of KKM70 where 3 children got a score of 75 from the previous score of 45, 2 children got a score of 75 from the previous score of 55, 2 children who scored 80 from the previous 65, 2 children who scored 80 out of 70, 3 children who scored 85 from the previous 80, 2 children who scored 90 and 95 from the previous 85, and 4 children who received 100 from the previous value of 87.

INTRODUCTION

The main capital for the nation's successor from an early age is education as an effort to improve the quality of Human Resources (HR). (Influence et al., 2020) Human resources will be able to manage natural resources for the welfare of society with good quality education. The quality of human resources is one of the factors needed to meet the needs and challenges in the current era of globalization. School as an educational institution which is a

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formal institution that accommodates students and fosters students so that they have the ability,(Ardianti & Marlana, 2020) intelligence, and skills.(Anisah, 1991) Educational institutions have an increased learning process at every level, especially in this In the era of globalization, the development of information and communication technology demands that learning processes in various fields play an important role and facilitate human thinking. Technology development is based on mathematics in the areas of number theory, algebra and discrete mathematics. At the primary school level, students are required to think logically, analytically, systematically, critically and creatively to acquire, manage and use information in their daily lives..(Novia Pitriani et al., 2022)

Learning mathematics that can motivate students to study independently or in groups and there is no class that is quiet when learning takes place while in class requires a group learning model that can help the learning process between students. So that in the classroom, students can learn to socialize by working together in groups. One of the cooperative learning models that can be given to students to always be innovative, creative, effective, and fun is the learning model to Teams Games Tournament (TGT).(Setianingsih et al., 2021) learning model to Teams Game Tournament (TGT)(Rahmawati & Muqdamien, 2016) can improve learning outcomes which are marked by the interest and attention and pleasure towards learning mathematics. The process of learning mathematics the Teams Game Tournament (TGT) model in the classroom, teachers and students together become active actors so that learning objectives are implemented. Learning objectives will achieve maximum results if learning is carried out effectively. Effective learning is learning that makes it easier for students to learn something useful such as a fact, skill, value, concept, how to live in harmony with others, or desired learning outcomes.(Purwandari & Wahyuningtyas, 2017)

In general learning with the learning model, especially Teams Game Tournament with the Game method(Ke & Grabowski, 2007), with A type of joint learning in which students are divided into study groups of 5 to 6 people with different abilities. Cooperative learning TGT consists of five phases: class presentation, group learning (team), (Slavin, 1982)game (game), competition (tournament), and group award (team award). Cooperative learning can also increase students' hard work to make them more active and motivated.(Gunawan & Paluti, 2017)

However, in class IV MI Hidayatus Sibyan has not yet implemented the Teams Game Tournament (TGT) learning model, teachers tend to use the direct instruction learning model where the teacher plays Active role in the learning process while students only need pay attention to what the teacher explains in front of the class. This has an impact on student

learning outcomes that are still below the KKM standard, student scores using the direct instruction model. The use of learning methods that are less than optimal results in less interesting learning, so that students get bored easily. The learning conditions carried out resulted in low student learning outcomes and many of them had not reached the Minimum Completeness Criteria (KKM). With KKM mathematics of 70, out of 18 students only 7 students were able to achieve KKM. So only 39% of students have thoroughly mastered the material being taught and 61% of other students are still below the KKM. The lowest score obtained by students was 45, and the highest score obtained was 87. Based on the explanation above, it shows that 61% of student scores are still below the KKM standard. So, in this case it is necessary to present the most appropriate learning method. It is on this basis that the author takes the title Use of the Teams Game Tournament Method in the Mathematics Subject of Multiplication Material in Class IV MI Hidayatus Sibyan Wanglukulon Senori Tuban. The specific objective of this research is to improve student learning outcomes in the learning process in class in the mathematics subject multiplication material for fourth grade MI Hidayatus Sibyan Wanglukulon Senori Tuban.(Sugianto et al., 2022)

RESEARCH METHODS

The sort of studies used is Qualitative Research which is obtained through research and is in the form of descriptive, which is carried out by the teacher and simultaneously as a researcher in his or her own class or with others (collaboratively) by designing, implementing, (Wyk, 2011) and reflecting on actions in a collaborative and participatory manner. In keeping with the nature of this study as a type of qualitative research, but the type of quantitative data is also needed as supporting data and not the main data.(Puspita Dewi & Arini, 2020) Qualitative data in the form of data obtained in the field or experience data in class on student activities and seen from the results of the Mathematics learning test on multiplication material using the Teams Game tournament (TGT) method. Zakat collection methods that researchers use are interview methods, observation methods and documentation methods.(Salam et al., 2015).

RESULTS AND DISCUSSION

Summary of interviews conducted by researchers for 3 months at the institution, getting several answers related to TGT about mathematics subjects, the use of interviews strengthens the results of this study:

Table 1 Results of interviews with school principals, teachers and guardians of students.

No	Respondents	Answer
1	According to Ms. Azizah, what about the use of the Teams Game Tournament (TGT) method in the Mathematics Subject of Multiplication Material in Class IV MI Hidayatus Sibyan?	So, in my view, learning mathematics multiplication material using the Teams Game Tournament (TGT) method is in accordance with what is in the RPP Curriculum-13, which includes 3 activities, namely preliminary activities, core activities, and closing activities. One of them is in the preliminary activity starting with apperception then conveying the learning objectives, carrying out learning, in the core activities the teacher makes groups to do the assignments given, in the final activity an evaluation of the subject matter that has been delivered is carried out. In addition, the use of the Teams Game Tournament (TGT) method can provide a fun learning experience where students not only learn but also combine it with play. In this method students can explore their abilities, and can also foster self-confidence and curiosity in the process of learning activities. In mathematics multiplication material, the Teams Game method. Tournament (TGT) provides a very significant role for the teacher, which can help convey material appropriately to students, and vice versa for students as a way to understand the subject matter delivered by the teacher
2	Furthermore, what about the results of increasing student learning itself in mathematics lessons, especially multiplication material in class IV MI Hidayatus Sibyan?	So, the value generated by students after learning mathematics multiplication material using the Teams Game Tournament (TGT) method is quite satisfactory, in which children are very enthusiastic in learning to be the key to success in this learning. The role of the use of the Teams Game Tournament (TGT) method was successful in increasing student learning outcomes in mathematics subject multiplication material. It can be seen from the previous grades obtained that the results were unsatisfactory which out of 18 students only 7 students were able to achieve the KKM, then after that it increased significantly to 18 students. who completed the KKM after the Teams Game Tournament (TGT) method was carried out.
3	What are the obstacles to the Teams Game Tournament (TGT) method in the Mathematics subject	So the obstacles experienced by students in the field, in my opinion, it takes quite a long time when dividing into groups, student cooperation in teams or groups is still lacking, lack of attention to group mates

	on multiplication material in class IV MI Hidayatus Sibyan?	who don't understand the material so the teacher must often remind students to help each other, understanding students regarding the material are still lacking, students when working on team assignments still depend on other group members, and also when students are given the opportunity by the teacher to ask questions, no students ask questions.
4	During the learning process, what do you think about the use of the Teams Game Tournament (TGT) method in the mathematics subject for multiplication material in class IV MI Hidayatus Sibyan?	In my opinion it is more fun to learn multiplication material mathematics using this method where by using this method I can first express my opinion through discussions with groups, so that it is indirectly easier for me to understand the multiplication material mathematics itself. Second, when the learning process is also accompanied by games so that we all don't feel bored.
5	Furthermore, what about the results of increasing student learning itself in mathematics lessons, especially multiplication material in class IV MI Hidayatus Sibyan?	With this method it really helps me in increasing my understanding of the lessons that have been taught by the teacher, and also the results of my grades are very satisfying which have increased from before.

Teams Game Tournament (TGT) Learning Model

The Teams Game Tournament (TGT) (Wyk, 2011) learning model is a type or model of collaborative learning, easy to apply in the classroom learning process, involving all students without distinction. about location. The Group Game Tournament (TGT) learning model involves the active role of students as peer instructors in the classroom and in the process contains game elements that can stimulate enjoys learning enthusiasm and contains reinforcement in its application. Collaborative learning Type Game Team Tournaments (TGTs) place students in learning groups of five to six students of varying abilities, genders, syllables, and races, in which students play Academic games with team members from other groups to earn extra points. their team scores. The Teams Game Tournament (TGT) (Wyk, 2011) learning model can balance the work of the left and right brains of students, because besides learning students will also play, playing has an integral relationship with early social, cognitive, and linguistic development. Play has been described as important for mental and physical health and social and emotional well-being. Based on some of the opinions of the experts above, the authors conclude that what is meant by the Teams Game Tournament (TGT) method is a series of teaching and learning activities that are carefully and

systematically arranged, which combine small group educational techniques, instructional games, tournaments and awarding prizes to winners in tournaments. (Kholidah & Qohar, 2021)

1. This type of Teams Game learning model to Tournament (TGT) cooperative basically has a purpose, including:
2. Being able to increase cooperation among students in order to get solutions to the problems faced by them by giving them the freedom to express their ideas or opinions;
3. Really helps students to increase the positive attitude that is in them when the learning process occurs;
4. Helping students get used to justifying responses and opinions from other students, so that students can increase their confidence in accepting what they convey; (Setianingsih et al., 2021)
5. When the learning process takes place students will learn more actively so that they can achieve better academic performance than before because with cooperation there will be make students feel they have a responsibility towards their group to make their group the best group.
6. Learning activities with games designed according to the Teams Game Tournament (TGT) cooperative learning model allow students to learn more freely and promote a sense of responsibility, honesty, cooperation, and competition. healthy and directly engaged in learning which can help students learn skills in solving problems by using games and competencies, so that students can be more relaxed in participating in learning activities. There are several main stages in the cooperative learning Teams Game Tournament method, namely.
7. Class Presentation Class presentations are used to introduce subject matter by direct teaching or lesson discussion led by the class teacher. (Nurahmawati et al., 2022)
8. Groups (Teams) Teams consist of five or six students, the function of the team is to further explore the material with their group mates. Team activities are discussions among members, comparing answers and correcting the results of team members.
9. Games Games are structured to test students' acquired knowledge and are usually structured in questions that are relevant to the material in class presentations and team work.
10. Tournament (Tournament) The tournament is when the game takes place, this tournament is held at the end of the lesson after the teacher has finished giving all the lessons on a

particular subject and each team has carried out the group work given by the teacher.(Setiawan & Jayanti, 2019)

11. Team Award Team awards are given when all learning activities have been completed, and those with the three highest grades are entitled to win. Based on the description above, the steps in Collaborative learning of the type Tournament game team following sequence: class presentation; study Group; academic tournaments; and team rewards.(Annurwanda, 2018)

Mathematics Subject

Here are some effective ways to learn math:(Kholidah & Qohar, 2021)

1. Learn Tricks and Easy Formulas, It should be underlined that not all math problems are difficult to solve. In order to make it easier to do, you have to know how to quickly do it using a certain formula. If you already know how the tricks and easy formulas are, then the questions given can be easily done. You will get used to doing math problems and continue to be curious about other formulas. In the end, you will realize that learning mathematics is very fun and not boring.(OlaREWaju et al., 2012)
2. Often Invite Friends to Study Together, Every new material explained by the teacher is usually not all of it can be understood immediately. Not infrequently there are students who are still confused in working on math problems. This problem can be overcome by inviting friends to study together. Studying together will allow you and your friends to help each other solve math problems. In addition, studying with friends is quite effective for conquering mathematics.
3. Understand the Basic Concepts, The next effective way to learn mathematics is that you need to understand the basic concepts of mathematics. These basic concepts must be understood correctly so that you become easier to solve and solve. In addition, mathematics is no longer a difficult and scary subject.
4. Do more practice questions, Whatever the subject, if you often do the exercises, you will understand and master it better, and mathematics is no exception. If you do more math exercises, it will help you solve the problem. By increasing the number of practice questions, the subconscious will be able to imagine how to solve them. In addition, it will also increase your confidence in working on each problem.
5. Understand the Problem and How to Do It, Doing math problems cannot be done by writing. This is because mathematics is an exact science so that every formula and problem given needs to be understood. It should also be noted that all math problems have

been designed in such a way and there is always an answer. Your task is to find the formula and know how to do it so that the answer is correct. However, answering math questions must not only be correct but also done in a coherent and precise manner. Quite confusing if the answer is correct but the process is not correct.

6. Look for a calm and pleasant atmosphere, Learning mathematics requires focus and concentration to make it easier to understand. Therefore, when studying try to find a comfortable and calm atmosphere. Examples such as studying in the garden of the house or the terrace while enjoying coffee. This method is effective enough to make learning mathematics more fun and certainly won't be boring.(Wyk, 2011)

Mathematics is a science that studies abstract structures and patterns of relationships in it, making mathematics a tool for studying other sciences.(Gunawan & Paluti, 2017) Mathematics is a subject that is very necessary in the world of education, with mathematics students are trained to think logically, systematically and critically. In addition Mathematics teaches students the way of thinking and reasoning skills to solve problems of everyday life. Math is a science that is composed of abstract concepts obtained from experience in a ratio with reasoning through the manipulation of mathematical language or mathematical notation that has global (universal) (Novia Pitriani et al., 2022)value. Mathematics is a subject that is studied from elementary, middle, high school to university because each level of education is interconnected between the subject matter of basic mathematics and higher mathematics.(Rahmawati, 2017)

One of the lessons in MI is mathematics about multiplication. The principle of multiplication is the same as repeated addition, therefore a prerequisite that students must have before learning multiplication is mastery of addition. Multiplication is a basic knowledge in arithmetic. Multiplication is an operation that multiplies one number by another to produce a certain definite value, and is an operation that scales one number to another, as a special case of addition, where all the adders are the same.(Anisah, 1991) The material for arithmetic operations is found in the syllabus for learning mathematics for class IV semester 1. Competency standards in mathematics are understanding and using the properties of number counting operations in problem solving. There are competencies in carrying out multiplication and division operations, multiplication material consists of:

1. Multiply one-digit numbers with two-digit and three-digit numbers;
2. Repeatedly multiplying numbers by ten and multiples of ten;
3. Multiply a two-digit number by a two-digit and three-digit number;
4. Calculates division with no remainder and with remainder.

Application of the Teams Game Tournament (TGT) Method in Mathematics Subject Multiplication Material in Class IV MI Hidayatus Sibyan Wanglukulon Senori District, Tuban Regency To find out the use of the Teams Game Tournament (TGT) method in learning mathematics on multiplication material, the researcher made direct observations and interviewed fourth grade teachers, fourth grade students, school principals. Based on the results of interviews with class IV teacher MI Hidayatus Sibyan about learning multiplication material mathematics using the Teams Game Tournament (TGT) method, he said that: In learning mathematics multiplication material using the Teams Game Tournament (TGT) method is in accordance with what is in the RPP Curriculum-13 which includes 3 activities, namely preliminary activities, core activities, and closing activities. One of them is in the preliminary activity starting with apperception then conveying the learning objectives, carrying out learning, in the core activities the teacher makes groups to do the assignments given, in the final activity an evaluation of the subject matter that has been delivered is carried out. (01/W/PMTGT/2022)

From the results of observations that researchers got directly in the field that the learning activities were initiated by the teacher saying hello, followed by students answering greetings in unison. The class leader is in charge of preparing and leading the prayer, after which the teacher asks how all the students are doing then the teacher took the roll call. At the first meeting, all students entered with a total of 18 students present. After the roll call, the teacher starts the lesson by reminding the previous material. After doing the apperception, The teacher explains the learning model that will be used in the learning process, specifically the use of a collaborative learning model with the Teams Game Tournament (TGT) method. The teacher then divides the students into groups which are divided into 6 groups with 3 students in each group. Each group consists of students with different levels of intelligence, namely high, medium and low. After gathering in each group, the teacher will explain the material that will be studied in mathematics, namely multiplication material. After the material has been given, then the teacher will give question sheets to each group that will be worked on by each group.

In the process, the teacher gives 15 minutes to complete the question, then each group is asked to show the results of the answers that have been done by pointing to students who have moderate and low abilities to show the results of their group's answers in front of the class. After each group shows the results of their group work in front of other friends, then the teacher will assess and choose which group has the correct answer and assess the

cohesiveness of each group. In assessing the results of their work, the teacher gives additional points to the group that has the correct answer and as a group that is compact in working on the questions. The points awarded are 10 points for the best group. Before ending the lesson the teacher first reminds students that an evaluation will be held with the material that has been taught, then the teacher ends the lesson by greeting. As for an outline of the general description of teacher activity when the learning process takes place in the classroom can be described in Table 1.1 as follows:

Table 2 Teacher Activities in Learning Activities

No	Observed Aspects	Evaluation		
		We	Cuku	Kuran
1	Open Lesson	√		
2	Fostering student enthusiasm	√		
3	Preparation of learning tools	√		
4	Provide an explanation of the material	√		
5	Interact with students	√		
6	Class control	√		
7	Material mastery	√		
8	Give opportunities to students	√		
9	Give students notes	√		
10	Evaluate	√		
11	Summing up the material	√		

The results of observations in class, it can be seen that student activity when participating in learning is described in table 1.2 below:

Tabel 3 Student Activities in Learning Activities

No	Student's name	Student Activity Indicator					
1	Abdul Fariz Maksymilian						
2	Ahmad Syauqi						
3	Andika Kurniawan						
4	Fatma Lailatul Azkiya						
5	Ika Nur Safitri Oktaviani						
6	Khilda Qurrota A'yun						
7	M. Farrel Nararya Ardyansyah						
8	M. Helmy Asyrofi						
9	M. Luthfi Hidayat						
10	Muhammad Alvin Maulana Nur Azidan						
11	Muhammad Arif Rohman						
12	Muhammad Fadly As'adi						
13	Muhammad Rizal Khaqimul Khamid						
14	Muhammad Sahly Asyhar						

15	Siti Halimatus Sa'diyah						
16	Zahara Reza						
17	M. Fathonil Irsyad Nasution						
18	Fadiyah Maslamatul Azma						

Information:

Paying attention to the teacher's explanation

Issue Opinions

Responding to Friends' Opinions

Discuss with the group

Ask the Teacher (Rahmawati & Muqdamien, 2016)

Record The Results Of Group Discussions

Meanwhile, to find out the role of using the Teams Game Tournament (TGT) method in mathematics lessons on multiplication material, the researcher made direct observations of Class IV MI Hidayatus Sibyan students consisting of 2 high-ability students, 2 moderate-ability students, and 2 low-ability students. The description of the students' abilities in question is contained in the following table:

Table 4 Differences in Student Ability

No	Student's name	Student Ability		
		Tall	Currently	Low
1	Fatma Lailatul Azkiya	√		
2	Muhammad Alvin Maulana Nur Azidan	√		
3	Khilda Qurrota A'yuni		√	
4	M. Luthfi Hidayat		√	
5	Siti Halimatus Sa'diyah			√
6	Abdul Fariz Maksymilian			√

Benchmarks of students' abilities are based on grades obtained in semester I of class IV. (Influence et al., 2020) The interview results are described as follows. Based on the results of an interview with Fatma Lailatul Azkiya as a Grade IV MI Hidayatus Sibyan student, she stated that: In my opinion, it is more fun to learn mathematics in multiplication material by using this method. immediately I easier to understand the math lesson multiplication material itself. Second, when the learning process is also accompanied by games so that we all don't feel bored. (02/W/PMTGT/2022)

The above statement was reinforced by Muhammad Alvin Maulana Nur Azidan, a grade IV student who stated that: Learning mathematics multiplication material using the Teams Game Tournament (TGT) method is very fun, because when the learning process is accompanied by a game so I don't feel bored and bored in understanding subject matter explained by the teacher. (03/W/PMTGT/2022) Khilda Qurrota A'yuni expressed her opinion:

In my opinion, learning by the Team Game Tournament (TGT) method is a novelty, because this method is very exciting and can even help me in understand the math lesson multiplication material. (04/W/PMTGT/2022)

Based on another opinion from M. Luthfi Hidayat who stated that: Learning mathematics multiplication material in groups can help me find my own understanding, and I can remember better than just listening to the teacher's explanation. M. Luthfi Hidayat, Interview, Wanglukulon, 24 February 2022. (05/W/PMTGT/2022) This statement was also reinforced by Siti Halimatus Sa'diyah who also said that: In studying mathematics, multiplication material prefers to use the Teams Game Tournament method. (TGT), because with this applied method I am more able to express opinions and cooperate with each other between friends or between groups in understanding mathematics, especially multiplication material. Siti Halimatus Sa'diyah, Interview, Wanglukulon, 24 February 2022. (06/W/PMTGT/2022)

While a different opinion was conveyed by Abdul Fariz Maksymilian, he said that: Learning mathematics in a group way improved my learning outcomes quite a lot, because for me studying in groups cannot be independent when working on questions and often copy friends. 56(07/W/PMTGT/2022) Results Subsequent interviews came from the statement of Mr. Ahmad Nursam, S.Pd.I as the head of MI Hidayatus Sibyan Wanglukulon who stated that: The use of the Teams Game Tournament (TGT) method is one of the methods in teaching and learning activities to help students achieve the desired competencies. This method focuses on group collaboration, in which students are trained to further increase creativity and synergy in group collaboration, besides that it also trains students' self-confidence. Therefore, this method plays a very important role in improving student performance in Maths Material Multiplication in Grade IV MI Hidayatus Sibyan, which is an indicator of academic achievement. (09/W/PMTGT/2022)

From the results of the interviews, it seems that the use of the Group Game Tournament (TGT) method in the math lessons on multiplication material in class IV MI Hidayatus Sibyan can facilitate the students' math learning in a pleasant atmosphere. Thus, in the learning process, students easily receive the materials provided by the teacher. For teachers themselves, the use of Team Game Tournaments (TGT) method is one method that can be used to convey learning. material through learning experiences, exploring abilities and learning to organize to respect each other and respect the opinions of others. The success of this method is an indicator of achieving the desired competency which is the most important goal in learning.(Purwandari & Wahyuningtyas, 2017)

Student Learning Outcomes Through the Teams Game Tournament (TGT) Method in Mathematics Subject Multiplication Material in Class IV MI Hidayatus Sibyan Wanglukulon Senori District, Tuban Regency In the research conducted, the authors used data analysis techniques in the form of descriptive analysis, in which the author's presentation will describe the use of Teams Game Tournament (TGT) method in Division of Maths multiplication and division of materials for class IV MI Hidayatus Sibyan Wanglukulon, Senori district, Tuban district. Based on the researchers' observations on the activities of teachers and students of Class IV MI Hidayatus Sibyan in the learning process by the Teams Game Tournament (TGT) method during math class on multiplication material, data on Student scores are collected in Table 1.2 as follows:

Table 5 Results of using the Teams Game Tournament (TGT) method

	Student's name	Score		
		KKM	Terms Game Tournament (TGP)	Information
1	Abdul Fariz Maksymilian	70	75	complete
2	Ahmad Syauqi	70	85	complete
3	Andika Kurniawan	70	85	complete
4	Fatma Lailatul Azkiya	70	100	complete
5	Ika Nur Safitri Oktaviani	70	80	complete
6	Khilda Qurrota A'yun	70	100	complete
7	M. Farrel Nararya Ardyansyah	70	75	complete
8	M. Helmy Asyrofi	70	80	complete
9	M. Luthfi Hidayat	70	95	complete
10	Muhammad Alvin Maulana Nur Azidan	70	100	complete
11	Muhammad Arif Rohman	70	85	complete
12	Muhammad Fadly As'adi	70	75	complete
13	Muhammad Rizal Khaqimul Khamid	70	75	complete
14	Muhammad Sahly Asyha	70	80	complete
15	Siti Halimatus Sa'diyah	70	80	complete
16	Zahara Reza	70	100	complete
17	M. Fathonil Irsyad Nasution	70	75	complete
18	Fadiyah Maslamatul Azma	70	90	complete

The table above shows student learning outcomes using the Teams Game Tournament method, whether value of each student has increased. The increase obtained ranged from 75-100 from the KKM score of 70. From these results the researcher drew the conclusion that using Teams Game Tournament cooperative learning is very helpful during classroom learning, because in its application it is easy for teachers and students to follow. In connection with the increase in the scores obtained by the students above, there were responses from a number of students.

1. First, Fatma Lailatul Azkiya as a Class IV MI Hidayatus Sibyan student stated that: With the Teams Game Tournament method it really helps me especially in understanding

mathematics subject matter of multiplication, after learning using the TGT method my grades have increased and I feel happy with the method learning like this, so I can be more confident. (10/W/HBSMMTGT/2022)

2. Second, the statement above was reinforced by Muhammad Alvin Maulana Nur Azidan, a class IV MI Hidayatus Sibyan who stated that: I feel happy with the grades I have achieved, even though my previous grades have exceeded the specified standard but after participating in learning using the Teams Game Tournament method or TGT, my score is perfect, and also my understanding of mathematics, especially in multiplication material, has increased. (11/W/HBSMMTGT/2022)
3. Third, the statement above was also reinforced by Khilda Qurrota A'yuni who also said that: What impresses me about learning using the Teams Game Tournament (TGT) method is that there is an opportunity for me to bring out all the abilities I have. This also helps me in improving my mathematics learning outcomes. (12/W/HBSMMTGT/2022)
4. Fourth, based on the opinion of M. Luthfi Hidayat who stated that: The grades I got were quite good after participating in learning using the Teams Game Tournament method. Initially, my multiplication material math score was not good, and finally after applying this method my score increased. (13/W/HBSMMTGT/2022)
5. Fifth, while a different opinion was conveyed by Siti Halimatus Sa'diyah, she said that: I am very grateful that the Teams Game Tournament (TGT) method has increased my grades and is very satisfying. Where my previous score was still below the standard I wanted, now it is good enough because of effort and hard work. (14/W/HBSMMTGT/2022)
6. Sixth, the same thing was also expressed by Abdul Fariz Maksymilian who expressed his opinion: Thank God, I am very happy with the grades I achieved. At first I didn't really like math lessons, one of which was multiplication material, but after learning using the Teams Game Tournament method I liked it more. And this had an impact on my math scores which were previously below standard, but after learning using the Teams Game Tournament method my grades increased and of course I have met the target of completing KKM. (15/W/HBSMMTGT/2022) Meanwhile, according to Ms. Siti Nur Azizah, S.Pd as a class IV teacher at MI Hidayatus Sibyan said that: The scores obtained by students after learning using the Teams Game Tournament (TGT) method were quite encouraging. The enthusiasm of children in learning is the key to success in learning. (Olaewaju et al., 2012)

The role of using the Teams Game Tournament (TGT) method in improving student learning outcomes in mathematics lessons on multiplication material is clear from the previous score of only 7 children who completed KKM which then increased significantly after this method was applied to 18 children who completed KKM. (16/W/HBSMMTGT/2022) From the statement above, it was reinforced again by Mr. Ahmad Nursam, S.Pd.I, who stated that: In achieving mastery learning is one indicator of the success of a teacher in carrying out his duties and role in educating and teach students.

The Teams Game Tournament (TGT) method is one of the learning methods that I can say is successful in improving the results of learning mathematics in multiplication material in class IV MI Hidayatus Sibyan. This can be seen from the achievement of competency scores achieved by students. Where there was a tremendous increase when previously there were only 7 students whose scores were above the KKM, after using the Teams Game Tournament (TGT) method it increased rapidly to 18 students. (17/W/HBSMMTGT/2022) Based on the results of interviews by researchers with fourth grade students, fourth grade teachers, and head of MI Hidayatus Sibyan and observational data on the scores obtained by students it can be concluded that the use of the Teams Game Tournament (TGT) method was successful in increasing results learn math lesson mate.

For obstacles encountered in applying Teams Game Tournament (TGT)-style cooperative learning to mathematics subject of multiplication material in class IV according to Ms. Siti Nur Azizah as class IV teacher MI Hidayatus Sibyan that:(Setyawan et al., 2017)

1. The announcement of the division of groups is made during the learning process, so that arranging seats by group is too time-consuming;(Veloo et al., 2018)
2. Student cooperation in teams or groups is still lacking, pays little attention to group mates
Anyone who doesn't understand the topic, just teach must often remind students to help each other;
3. Students' understanding of the material is still lacking, students when working on team assignments still depend on other group members;(Aulyawati & Sujadi, 2016)
4. When students were given the opportunity by the teacher to ask questions, no students asked questions.

For the students themselves, the obstacles experienced when learning to use Teams Game Tournament (TGT) (In'am & Sutrisno, 2020)method in the mathematics subject multiplication material in class IV according to Muhammad Alvin Maulana Nur Azidan as a class IV student MI Hidayatus Sibyan stated that the obstacles faced included:

1. Lack of maintaining cohesiveness between groups;

2. The time is too fast;
3. Not used to groups. The obstacles experienced according to Mr. Ahmad Nursam, S.Pd.I as the Head of Madrasah Ibtidaiyah Hidayatus Sibyan were not being able to directly monitor the classroom learning process.

CONCLUSION

From the application of the Teams Game Tournament (TGT) method in mathematics subject matter multiplication in class IV MI Hidayatus Sibyan Wanglukulon shows improve student learning outcomes can achieve a score above the KKM, namely 70, of which 3 children get a score of 75 from the previous score of 45, 2 children get a value of 75 from the previous value of 55, 2 children who received a value of 80 from a previous value of 65, 2 children who received a value of 80 out of 70, 3 children who received a value of 85 from a previous value of 80, 2 children who received a value of 90 and 95 from a previous value of 85 , and 4 children who got a score of 100 from the previous score of 87. The results of mathematics learning activities by applying the The Teams Game Tournament (TGT) method can improve student learning outcomes on multiplication arithmetic operations material and skills in interacting with friends or with teachers. Constraints in implementing Teams Game Tournament (TGT) learning model in the classroom IV MI Hidayatus Sibyan Wanglukulon have an impact on class teachers who are felt when learning starts from grouping students to explanations regarding the material and learning models that will be applied. Obstacles faced by students, namely not being used to implementing learning designed by the teacher in groups, as well as obstacles to the school principal, namely relating to facilities and infrastructure during learning activities in class.

REFERENCE

- Anisah, Z. (1991). *Penggunaan Media Gambar Bersusun Untuk Meningkatkan Kemampuan Menulis Paragraf Naratif Siswa Madrasah Ibtidaiyah*. 111–122.
- Annurwanda, P. (2018). The Effect of Teams Games Tournament on Mathematics Self-Efficacy in Junior High Schools. *SHS Web of Conferences*, 42, 00079. <https://doi.org/10.1051/shsconf/20184200079>
- Ardianti, U., & Marlina, L. (2020). Probit Regression Analysis to Predict the Effect of Problem-Based Learning Model and Teams Games Tournament Cooperative Learning Model toward Students' Learning Outcomes. *Desimal: Jurnal Matematika*, 3(3), 201–210. <https://doi.org/10.24042/djm.v3i3.6749>
- Aulyawati, R. A., & Sujadi, A. A. (2016). Implementasi Pembelajaran Kooperatif Tipe Tgt

- (Teams Games Tournament) Untuk Meningkatkan Minat Dan Prestasi Belajar Matematika Siswa Kelas Viii C Smp N 2 Sanden, Bantul. *UNION: Jurnal Ilmiah Pendidikan Matematika*, 4(3), 419–426. <https://doi.org/10.30738/v4i3.440>
- Gunawan, I., & Paluti, A. R. (2017). Premiere Educandum. *E-Journal.Unipma*, 7(1), 1–8. <http://e-journal.unipma.ac.id/index.php/PE>
- In'am, A., & Sutrisno, E. S. (2020). Strengthening Students' Self-efficacy and Motivation in Learning Mathematics through the Cooperative Learning Model. *International Journal of Instruction*, 14(1), 395–410. <https://doi.org/10.29333/IJI.2021.14123A>
- Influence, T. H. E., Cooperative, O. F., Model, L., Games, T., Type, T., Mathematics, T. O., & Result, L. (2020). *Pengaruh Model Pembelajaran Kooperatif Tipe Teams Games the Influence of Cooperative Learning Model Teams Games Tournament Type*.
- Ke, F., & Grabowski, B. (2007). Gameplaying for maths learning: Cooperative or not? *British Journal of Educational Technology*, 38(2), 249–259. <https://doi.org/10.1111/j.1467-8535.2006.00593.x>
- Kholidah, N., & Qohar, A. (2021). Students' mathematical communication in teams games tournaments (TGT) learning model on trigonometry topic. *Journal of Physics: Conference Series*, 1806(1). <https://doi.org/10.1088/1742-6596/1806/1/012110>
- Novia Pitriani, N., Novianti, P. R., & Juanda, R. Y. (2022). *PENGARUH MODEL PEMBELAJARAN KOOPERATIF TIPE TEAMS GAMES TOURNAMENT (TGT) BERBASIS MEDIA CORONG BERHITUNG TERHADAP HASIL BELAJAR MATEMATIKA MATERI PERKALIAN DI SEKOLAH DASAR (Penelitian Eksperimen pada Siswa Kelas II SD Negeri Sukasari Kecamatan Situraja K. I(1), 1–10. <https://ejournal.unsap.ac.id/index.php/pi-math>*
- Nurahmawati, D., Sesrita, A., & Maryani, N. (2022). Membandingkan Antara Model Number Head Together (Nht) Dan Teams Games Tournament (Tgt) Pada Hasil Belajar Matematika. *SITTAH: Journal of Primary Education*, 1(1), 17–30. <https://doi.org/10.30762/sittah.v1i1.1968>
- Olawaju, A., Awofala, A., Fatade, A. O., & Ola-oluwa, S. A. (2012). Achievement in Cooperative versus Individualistic Goal-Structured Junior Secondary School Mathematics Classrooms in Nigeria. *International Journal of Trends and Technology*, 3, 7–12.
- Purwandari, A., & Wahyuningtyas, D. T. (2017). Eksperimen Model Pembelajaran Teams Games Tournament (Tgt) Berbantuan Media Keranjang Biji-Bijian Terhadap Hasil Belajar Materi Perkalian Dan Pembagian Siswa Kelas Ii Sdn Saptorenggo 02. *Jurnal Ilmiah Sekolah Dasar*, 1(3), 163. <https://doi.org/10.23887/jisd.v1i3.11717>
- Puspita Dewi, I. A. K. S., & Arini, N. W. (2020). The Positive Impact of Teams Games Tournament Learning Model Assisted with Video Media on Students' Mathematics Learning Outcomes. *Journal of Education Technology*, 4(3), 367. <https://doi.org/10.23887/jet.v4i3.27099>
- Rahmawati, & Muqdamien, B. (2016). Peningkatan Hasil Belajar Matematika pada Materi Operasi Hitung Perkalian dan Pembagian Bilangan Pecahan dengan Menggunakan Model Team Games Tournament. *Primary: Jurnal Keilmuan*, 8(1), 112. <http://www.jurnal.uinbanten.ac.id/index.php/primary/article/view/150/152>
- Rahmawati, N. K. (2017). Implementasi Teams Games Tournaments dan Number Head Together ditinjau dari Kemampuan Penalaran Matematis. *Al-Jabar : Jurnal Pendidikan*

- Matematika*, 8(2), 121. <https://doi.org/10.24042/ajpm.v8i2.1585>
- Salam, A., Hossain, A., & Rahman, S. (2015). The Effect of using Teams Games Tournaments (TGT) Cooperative Technique for Learning Mathematics in secondary schools of Bangladesh. *Journal of Research in Mathematics Education*, 4(3), 271–287. <https://doi.org/10.17583/redimat.2015.1519>
- Setianingsih, D., Afiani, K. D. A., & Mirnawati, L. B. (2021). Penerapan Model Pembelajaran Teams Games Tournament (Tgt) Untuk Meningkatkan Hasil Belajar Materi Perkalian Siswa Kelas Iii Sd Muhammadiyah 8 Surabaya. *Alpen: Jurnal Pendidikan Dasar*, 5(1), 24–37. <https://doi.org/10.24929/alpen.v5i1.75>
- Setiawan, F., & Jayanti, S. (2019). Peningkatan Hasil Belajar dan Kerjasama Peserta Didik Melalui Metode Team Game Tournament Berbantuan Domino Aljabar Pada Materi Operasi Aljabar Kelas 7D SMP Negeri 5 Smearang. *Prosiding Seminar Nasional Matematika*, 2, 444–451. <https://journal.unnes.ac.id/sju/index.php/prisma/>
- Setyawan, I., Budiyo, & Slamet, I. (2017). The comparison of Missouri mathematics project and teams games tournament viewed from emotional quotient eight grade student of junior school. *AIP Conference Proceedings*, 1868(2017). <https://doi.org/10.1063/1.4995140>
- Slavin, R. E. (1982). Cooperative Learning: Student Teams. What Research Says to the Teacher. In *National Education Association*.
- Sugianto, R., Cholily, Y. M., Darmayanti, R., Rahmah, K., & Hasanah, N. (2022). Development of Rainbow Mathematics Card in TGT Learning For Increasing Mathematics Communication Ability. *Kreano, Jurnal Matematika Kreatif-Inovatif*, 13(2), 221–233. <https://doi.org/10.15294/kreano.v13i2.38068>
- Veloo, A., Rahman, F. A., & Chairany, S. (2018). *Students' Mathematics Attitude towards Cooperative Learning Teams-Games-Tournament*. 125(ICIGR 2017), 259–263. <https://doi.org/10.2991/icigr-17.2018.62>
- Wyk, M. M. van. (2011). The Effects of Teams-Games-Tournaments on Achievement, Retention, and Attitudes of Economics Education Students. *Journal of Social Sciences*, 26(3), 183–193. <https://doi.org/10.1080/09718923.2011.11892895>