
INCREASING MATHEMATICS LEARNING OUTCOMES THROUGH THE TEAMS GAMES TOURNAMENT MODEL IN CLASS III BANYUAJUH 2 ELEMENTARY SCHOOL

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ABSTRACT

Mathematics is one of the compulsory subjects taught at all levels of education. Even so, mathematics is still considered the most difficult subject in the minds of many students. One of the causes of this is the learning model used by the teacher is not in accordance with the characteristics of students. This research is a classroom action research that aims to determine the increase in mathematics learning outcomes through the application of the teams tournament model in class III SDN Banyuaju 2. Data collection in this study used data collection techniques in the form of interviews, observation, tests, and documentation with quantitative qualitative data analysis techniques. . The results of this study indicate that there is an increase in student learning outcomes in mathematics in each cycle. In cycle I, the average student learning outcomes reached a score of 68 with the percentage of students completing 50%. These results have not reached the target of success. Therefore, repetition of actions is carried out, in which the teacher in cycle II is more motivating and monitoring students during learning so that students are more focused. The results obtained were that the average score of students increased to 84 with the percentage of students completing 100%. This shows that the application of the teams games tournament model can improve student learning outcomes.

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A. Introduction

Mathematics is one of the compulsory subjects at every level of education (Kamarullah, 2017). Concepts and ways of thinking in mathematics will be very useful for students to be able to solve many problems in their daily lives (Marliani, 2015). Even so, there are still many students who consider mathematics a difficult subject. There are many factors that have made the statement to this day firmly rooted in the minds of many students. Some of them are abstract mathematical concepts, the teacher's lack of ability to present mathematical concepts to be more concrete and easily understood by students, the presentation of mathematics learning is boring, students' basic mathematical concepts are lower so that it makes them difficult to understand further mathematical concepts, and others (Budyayanti & Anindyta, 2021).

Students' poor thinking about mathematics often causes low mathematics learning outcomes in class (Utari et al., 2019). When students' mathematics learning outcomes are always low, this will also reduce students' interest in learning mathematics. Therefore, we need an action that can improve these conditions. One of the causes of the decline in learning interest and student learning outcomes in mathematics that has been mentioned above is the presentation of boring mathematics. Therefore, what can be done to improve these conditions is to apply a fun mathematics learning model that is appropriate to the cognitive level and characteristics of elementary school students.

Based on the results of a preliminary study conducted on class III students at SDN Banyuajuh 2, the results of learning mathematics in that class were still very low. most students get learning outcomes under the minimum completeness criteria (KKM). Based on the results of initial observations made at Banyuajuh 2 Public Elementary School, there are the following symptoms: 1) Students tend to get bored in participating in Mathematics lessons, 2) students lack curiosity about the lessons delivered by the teacher in class, and 3) during teacher learning tend to explain the material, give examples of questions and give exercises in a monotonous way.

The process of learning mathematics in class is always carried out in the usual way with the order of presentation: (1) theories/definitions/theorems are taught by announcement, (2) the teacher gives examples of questions, then (3) gives students assignments to do. Such a learning process makes most students quickly get bored and bored when the mathematics learning process takes place

Learning mathematics in the classroom often prioritizes giving theories and explanations. Such learning creates a passive and undemocratic learning model, because the important role belongs to the teacher. In addition, this kind of process is also not in accordance with the characteristics of students, especially in class III students. Therefore, teachers must be able to take alternative steps that can make learning mathematics more meaningful, interesting, and fun. This is useful for increasing student achievement in the acquisition of learning mathematics. Teachers should strive to create a student-centered learning process. In other words, teachers can adopt learning strategies that treat students as active learning objects, while teachers only act as facilitators. In addition, in the learning process, teachers must also create a pleasant learning atmosphere for interaction between teachers and students.

Based on these symptoms, it is necessary to make improvements and updates in learning activities. Need to adopt a learning model that can activate students directly in general, giving students the opportunity to develop their full potential. At the same time, develop aspects of personality such as cooperation, responsibility and discipline. One of the fun models to support learning is to use collaborative learning models such as the Team Games Tournament (TGT) group or can also be interpreted as inter-team tournaments or inter-team matches, because there are elements of play, understanding characters, situations, participation and self-actualization. in discovering one's talents and potential.

The Teams Games Tournament learning model is a type of cooperative learning that places students in study groups consisting of 5-6 students with different abilities, gender, and syllables or segments (Julaikah, 2015). The teacher provides support for students working in their own groups. In group work, the teacher distributes worksheets to each group and group members work on the assigned tasks. If one group member does not understand the assignment given, it is the responsibility of the other group members to provide an answer or explain it, before asking questions to the teacher. Based on the existing background and theory, the researcher is interested in carrying out class action by applying the team games tournament learning model. This study aims to determine the increase in mathematics learning outcomes through the applied teams games tournament learning model.

B. Method

This research is a classroom action research. The subjects of this study were class III students of SDN Banyuaju II with a total of 39 students and class III teachers. The research was conducted in 1 cycle, with 2 cycles in each cycle, each cycle consisting of 4 stages, namely: activity planning, implementation, observation and reflection. Data collection techniques used interview, observation, test and documentation techniques. The collected data will be analyzed qualitatively and quantitatively.

C. Result and Discussion

1. Cycle I

Before carrying out the action in cycle I, the researcher first carried out the preparatory stage. Some of these teaching tools include lesson plans, learning resources, evaluation, and others, media, and research instruments including observation sheets, teacher and student interview guidelines, as well as formative test sheets implementing the Teams Games Tournament (TGT) learning model. After making some of these preparations, the researcher took action. The implementation of activities is carried out in stage I, namely carrying out learning in accordance with the RPP that has been prepared which has been formulated for class III students at SDN Banyuajuh 2. The first step is that the learning process begins with preliminary activities including reading prayers, presence, conveying goals and apperception. Apperception is done by showing several activities such as ripping paper, cutting apples, and dividing plasticine, then asking several questions to stimulate students' curiosity.

The second step is the main activity. There are several sub-stages in this step. First, yguru explained briefly the concept of fractions then followed by a question and answer session. Second, the teacher forms 4 groups of students with the same number of members. Third, the teacher distributes LKPD to each student, where the questions in the LKP must be done by discussing with group members. group by directing if the student finds it difficult. Fourth, the teacher shows one child as a group representative to enter the game tournament based on predetermined settings and conditions. Fifth, the TGT model tournament was implemented. Sixth, after the score has been obtained, the teacher closes the game and reviews the material taught during the activity followed by question and

answer with students. The last step is the teacher gives reflection regarding the material that has been studied.

Data in cycle I were collected through direct observation techniques by researchers interviewing teachers. And the learning outcomes test. Based on the results of observations, in the preliminary stage the students listened to the explanation and also answered the teacher's questions. Some students were seen actively taking notes and asking questions related to the material. At the core stage, students carry out discussions and collaborations that are less conducive. Some students who seemed not actively discussing. This is justified by the teacher who teaches that every math lesson, usually students can only focus in the early minutes. According to the teacher, the obstacle to the thematic teaching and learning process in mathematics is that students lack enthusiasm in learning and students find it difficult to complete their assignments. The solution to overcoming obstacles in the classroom during the thematic teaching and learning process in mathematics is by encouraging them to continue learning, answering students' questions clearly, inviting students to study in groups and using the occasional media. The teaching and learning process is so that students don't get bored easily, that is, sometimes by forming groups, so that students can complete it together with their members. So, students are not easily bored and find it difficult to do assignments, the facilities and infrastructure at school are quite adequate for the teaching and learning process.

Based on the results of students' ability tests in the thematic mathematical content of fractional material, as follows:

Table I. Student Test Results on Cycles I

| No | Completeness Aspect | Group and Number of Students | Score | Description |
|------------------------------|---------------------|------------------------------|-------|-------------|
| 1. | Complete | Group 1 | 70 | ≥70 |
| | | Group 3 | 75 | |
| 2. | Not Complete | Group 2 | 55 | ≤70 |
| | | Group 4 | 60 | |
| Average value | | | 68 | |
| Number of Completed Students | | | 12 | |

From the table above it can be seen that the student test results with an average score of 68. These results have not reached the KKM score in an average score. In addition, the number of students who have completed their studies is 12 out of 24 students with a percentage of 50%. This result is associated with the theory of mastery learning from (Trianto, 2012), which states that a class can be said to be complete if ≥85% of students in the class are declared to have studied thoroughly,

then the class in cycle I is declared to be classically incomplete. In general, the results obtained in this first cycle, the target of success has not been achieved. Therefore, the researcher plans to repeat the action. This is in accordance with what was conveyed by (Mulyatiningsih, 2015), that researchers can repeat the action if the target of success in cycle I.

2. Cycle II

Before carrying out the action, the researcher prepared several things including teaching materials including lesson plans, learning resources, evaluation, and others, media, and research instruments including observation sheets, teacher and student interview guidelines, as well as formative test sheets implementing the Teams Games Tournament (TGT) model. The flow of implementing the actions in cycle II is almost the same as the flow of implementation in cycle I. The difference lies in the intensity of giving motivation and supervision from the teacher during the process. In cycle II, the intensity of giving motivation and supervision is further enhanced, especially during the discussion and tournament stages. In addition, in the apperception and reinforcement activities at the end of the lesson, apart from students, the teacher also randomly asked students questions to ensure that students remained focused. Based on the results of observations and interviews with teachers, students in cycle II look more focused. The following are the results of students' ability tests in the thematic mathematics content of fraction material:

Table 2. Student Test Results in Cycles II

| No | Completeness Aspect | Group and Number of Students | Score | Description |
|------------------------------|---------------------|------------------------------|-------|-------------|
| 1. | Complete | Group 1 | 80 | ≥70 |
| | | Group 3 | 85 | |
| 2. | Not Complete | Group 2 | 85 | |
| | | Group 4 | 90 | |
| Average value | | | 84 | |
| Number of Completed Students | | | 24 | |

From the table above it can be seen that the student test results with an average score of 84. These results have not reached the KKM score in an average score. In addition, the number of students who have completed their studies is 24 students with a percentage of 100%. This result is related to the theory of mastery learning from (Trianto, 2012), which states that a class can be said to be complete if ≥85% of students in the class are declared to have completed learning, then the class in cycle I is declared to have completed classically. Because the results obtained in cycle II have reached the target of success, the researcher does not repeat the action again.

D. Conclusion

Research that has been carried out in class III at SDN Banyuaju 2 regarding the application of the teams games tournament model shows that there is an increase in student learning outcomes in mathematics in each cycle. In cycle I, the average student learning outcomes reached a score of 68 with the percentage of students completing 50%. These results have not reached the target of success. Therefore, repetition of actions is carried out, in which the teacher in cycle II is more motivating and monitoring students during learning so that students are more focused. The results obtained were that the average score of students increased to 84 with the percentage of students completing 100%. This shows that the application of the teams games tournament model can improve student learning outcomes

References

- Budyayanti, C. I., & Anindyta, P. (2021). Pelatihan Pembelajaran Matematika Berbasis IT di SD Xaverius Metro Lampung. *Seminar Nasional Hasil Penelitian Dan Pengabdian Kepada Masyarakat 2021 Pengembangan Ekonomi Bangsa Melalui Inovasi Digital Hasil Penelitian Dan Pengabdian Kepada Masyarakat*, 855–868.
- Imran, dkk. 2022. Meningkatkan Hasil Belajar Siswa Melalui Strategi Pembelajaran Berbasis Masalahpada Mata Pelajaran IPS di Kelas V SDN 2 Limbo Makmur Kecamatan Bumi Raya. *Jurnal Kreatif Tadulako Online*. Vol. 3, No. 1
- Julaikah, Y. (2015). *Pengaruh Model Pembelajaran Students Team Achievement Division dan Teams Games Tournament Berbantuan Media Monopoli terhadap Hasil Belajar Pengantar Ekonomi Bisnis Ditinjau dari Sikap Percaya Diri di SMK Pawyatan Daha 2 Kediri Tahun Pembelajaran 2014-2015*. Universitas Sebelas Maret Surakarta.
- Kamarullah. (2017). Pendidikan Matematika di Sekolah Kita. *Al Khawarizmi: Jurnal Pendidikan Dan Pembelajaran Matematika*, 1(1), 21–32.
- Kunandar. 2010. Guru Profesional Implementasi Kurikulum Tingkat Satuan Pendidikan (KTSP) Persiapan Menghadapi Sertifikasi Guru. Jakarta: PT. Raja Grafindo Persada.
- Marliani, N. (2015). Peningkatan Kemampuan Berpikir Kreatif Matematis Siswa Melalui Model Pembelajaran Missouri Mathematics Project (MMP). *Jurnal Formatif*, 5(1), 14–25.
- Mulyatiningsih, E. (2015). Metode Penelitian Tindakan Kelas. In *Modul Pelatihan Pendidikan Profesi Guru: Fakultas Teknik, Universitas Negeri Yogyakarta*. Universitas Negeri Yogyakarta.
- Setiyawan H. 2018. Metode Permainan Bingo Matematika pada Materi Operasi Hitung Pecahan terhadap Hasil Belajar Siswa kelas IV. *Jurnal Matematika dan Pembelajaran*. Vol. 6, No. 2.
- Slavin, Robert E. 2010. Cooperative Learning Teori, Riset dan Praktis. Bandung: Nusa Media.
- Subagyo, dkk. 2017. Peningkatan aktifitas dan Hasil Belajar dengan Metode Problem Basic Learning (PBL) pada Mata Pelajaran Tune Up Motor Bensin Siswa Kelas XI di SMK Insan Cendekia Turi Sleman Tahun Ajaran 2015/2015. *Jurnal Taman Vokasi*. Vol. 5, No. 1.
- Sumarmin R., dkk. 2020. Analisis Hubungan Motivasi Belajar terhadap Hasil Belajar Siswa SMP di kota Padang. *Jurnal Atrium Pendidikan Biologi*.
- Surya F.Y. 2018. Penerapan Model Pembelajaran Kooperatif Tipe Team Games Tournament (TGT) untuk Meningkatkan Hasil Belajar Matematika Siswa Kelas V Sekolah Dasar Negeri 003 Bangkinang Kota. *Jurnal Cendikia: Jurnal Pendidikan Matematika*. Vol. 2, No. 1.
- Trianto. (2012). *Model Pembelajaran Terpadu*. PT Bumi Aksara.
- Utari, D. R., Wardana, M. Y. S., & Damayani, A. T. (2019). Analisis Kesulitan Belajar Matematika dalam Menyelesaikan Soal Cerita. *Jurnal Ilmiah Sekolah Dasar*, 3(4), 534–540.