



Implementation of the Teams Games Tournament (TGT) Learning Model Assisted with Lost Card Media to Improve the Numeration Abilities of Class I Students in Primary Schools

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ABSTRACT

This research aims to describe the application of the Teams Games Tournament (TGT) learning model assisted by Missing Card media to improve the numeracy skills of Class I students in elementary schools. The subjects of this research were 24 grade 1 students at SD Negeri 078/I Teluk Ketapang. This research is classroom action research (PTK). Observation, interviews, tests, and documentation were obtained from this research data. The results of research that implemented the Teams Games Tournament learning model assisted by Lost Card media showed an increase in students' numeracy skills as indicated by recapitulation data which was guided by indicators of class I students' numeracy abilities. The percentage of students' numeracy abilities in cycle II reached 79.16%. there was an increase in numeracy ability, which in the pre-cycle was 29.16%. and cycle I reached 59.09%.

Keywords

Games Tournament Model, Lost Card Media, Counting

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INTRODUCTION

Government Regulation (PP) no. 4 of 2022 concerning Amendments to Government Regulation no. 57 of 2021 concerning National Education Standards, national education functions to develop abilities and shape the character and civilization of a dignified nation in order to make the life of the nation intelligent, and has the aim of developing the potential of students. This means that education is a means of developing the potential that exists within us in order to prepare ourselves to face developments that occur in the world of education.

In reality, education in Indonesia still has many unsolved problems. Starting from planning, implementation, and the results achieved have not met expectations. Careful planning, effective implementation and good learning outcomes are certainly the hopes of all



parties involved. According to Hidayati (2012), there are several factors that influence children's numeracy skills, namely factors from within the child and factors from outside the child.

Mathematics is a branch of science and plays an important role in the development of science and technology, not only as a tool for applying other fields of science, but also as a tool for developing mathematics itself (Siagian, 2016: 60). Learning mathematics, especially in elementary schools, can improve students' ability to understand and absorb lessons more quickly. Apart from that, mathematics can train students to think rationally, critically, logically, analytically and systematically. The most basic mathematics learning that elementary school students must have and master is the ability to count. The ability to calculate is very useful in solving our daily problems. According to Emi Eti (2013: 143) "Counting is an aspect of mathematics that is used to find out how many objects there are." Students' high numeracy skills can help and shorten the time for solving mathematics problems, and vice versa, if students' numeracy skills are low it will hinder them in solving mathematics problems (Musthafa, A & Mandailina, 2018). Learning material for counting in grade 1 elementary school includes: counting many objects, ordering many objects, determining the place value of tens and ones, using the properties of exchange and grouping operations, and solving problems involving addition and subtraction of two-digit numbers (Widjayatri, 2016: 5).

Based on observations made by researchers in class 1 of SD Negeri 078/I Teluk Ketapang on October 1 2022, researchers found that there were still many class I students who had low numeracy skills. Some of them cannot even count to 10, thus affecting students' mathematics learning outcomes. From the results of observations and interviews with class teachers, grade 1 students' numeracy skills in whole number material are still very low and their mathematics learning outcomes are also below the KKM. According to the class teacher who teaches and class data, out of 24 students there are 3 or 12.5% of students who cannot count from numbers 1-5, there are 14 or 58.33% who cannot count from numbers 1-20, and 7 or 29. 16% of students can count numbers 1-20. From the researcher's observations when conducting observations in class 1, especially mathematics content, the teacher still used



conventional methods, namely using the lecture method in front of the class. Students only listen to the teacher's explanation and are then asked to do practice questions in the thematic book. Apart from that, there is also no visible variation in learning and the use of media during the learning process, making the learning process not optimal and resulting in low student numeracy skills and low mathematics learning outcomes.

Based on the explanation above, the cause of students' low numeracy skills is caused by the conventional learning model where the teacher continues to lecture in front of the class and the students only passively listen, so the research will apply a type of cooperative learning model. *Teams Games Tournament (TGT)* with the help of lost card media to improve the numeracy skills of class I students.

The Teams Games Tournament (TGT) learning model is a collaborative learning model. By using this learning model, students have the opportunity to study in different groups and each student is encouraged to discuss and exchange ideas with their group. The TGT learning model is a learning strategy that places students in study groups consisting of 4-5 students with different ability levels (Solihah, 2016). Learning model *Teams Games Tournament (TGT)* is a learning model of learning activities with games and academic competitions where student cooperation is required in the activities.

The series of implementation of the Teams Games Tournament learning model includes: (1) presentation in class (class presentation), namely the teacher explains the learning objectives, main material and explanation of the learning activities to be carried out; (2) group learning (teams), namely students in the class are made into groups to discuss and deepen the material provided by the teacher; (3) games, where representatives of group members play games; (4) competition or competition (tournament), namely students from each group compete according to their level of achievement from the previous game; (5) group awards, namely giving prizes to groups for their achievements (Widiasworo 2018:8).

The learning process will depend on the teacher's perception and understanding of student characteristics and the nature of learning. Student characteristics are special characteristics possessed by each student as an individual or group that must be taken into account in the learning process activities (Alfin, 2014). The characteristics of elementary



school students are as follows: 1) like to play, 2) like to move, 3) like to work in a group, 4) like to feel or do something directly. The characteristics of grade 1 elementary school students are at the concrete operational stage, thus, a teacher must be able to choose learning media that is interesting and concrete and logical. The characteristics of students who enjoy working in groups also provide good benefits for their social development. Apart from that, this group-like nature can make children tend to imitate their peers or groups.

The numeracy skills of students in elementary schools are greatly influenced by the quality of the learning process carried out by teachers in the classroom (Valentina & Wulandari, 2022). The learning process using the Teams Games Tournament (TGT) model is more effective if you use learning media. Learning media is something that communicates a subject and stimulates students' thoughts, feelings, interests and attention (Ramli, 2012). In general, the benefit of media in a learning process is to facilitate interaction between teachers and students, thereby making the learning process more effective and efficient (Wahab et al, 2021). Appropriate learning media are used in mathematics learning materials, learning models *Teams Games Tournament* (TGT), and the character of class 1 students is the missing card medium. Apart from being easy to use, the lost card media is also small in size and can be directly touched and held by grade 1 students. The lost card media (KaHi) is a card learning media consisting of numbers and pictures which is played in groups and each group will work together. compete to win and be the fastest to arrange the cards given by the teacher.

Researchers conducting this research refer to relevant research conducted by previous researchers. The results of research conducted by Ana Solikhah et al (2019) illustrate the level of children's numeracy abilities in each cycle. In the first cycle students experienced an increase in their numeracy skills by 13.33%, then in the second cycle students experienced an increase in their numeracy skills by 26.67% and in the third cycle they experienced an increase of 40% from the situation before the action was taken. So that the results of the research obtained a complete score of 80% of the total number of children in the class. Furthermore, research conducted by Dhea Maulinda et al (2022) showed that students' numeracy skills appeared to have effectively increased beyond the KKM, which at the



beginning before the action was taken, the average score was 28.4%, increasing to 80%. Furthermore, research conducted by Nopi Tri Ambarwati et al (2014) showed that there was an increase in learning outcomes seen in the increase in the average value of student learning outcomes from the initial condition of 33.33 to 86.66 in cycle I and in the end to 93.33. in cycle II

Based on the background explanation above, the aim of this research is to apply a learning model *Teams Games Tournament (TGT)* with the help of Lost Card media to improve the numeracy skills of grade 1 students in elementary schools. The benefit of this research is to increase knowledge regarding increasing the development of numeracy skills by implementing a learning model *Team Games Tournamnet (TGT)* assisted by Lost Card media.

RESEARCH METHODS

Types of research

This research is classroom action research (PTK). Classroom action research consists of several stages in the cycle, according to Sugiyono, (2013) the stages in the classroom action research cycle are: (1) action planning, (2) action implementation, (3) observation, and (4) reflection.

Time and Place of Research

This research will be carried out in class 1 of SDN 078/I Teluk Ketapang, in the 2022/2023 academic year. This research was carried out in Pemayung District, Batang Hari Regency.

Research Targets/Subjects

The subjects in this research were class 1 teachers and all class I students at SD Negeri 078/I Teluk Ketapang, totaling 24 people, consisting of 13 women and 11 men.

Data and Data Sources

The research and type of data used in this research is classroom action research (PTK). The data in this research are the results of teacher interviews, student tests and the results of researcher observations. The research data sources were obtained from students, teachers and student test results.

Data analysis technique

The collected data will be analyzed using comparative descriptive analysis techniques. The descriptive will explain the implementation of mathematics content learning by applying the TGT learning model assisted by missing card media. Comparative will compare test results and understanding of counting before taking action and after taking action.

The data analysis technique used in this research is basically qualitative data analysis. Data obtained from field observations and interviews were analyzed in descriptive form. In addition, data management and analysis in the classroom action research method is carried out continuously, as long as the research takes place from the initial to the final stages in the overall action plan, according to the characteristics of the subject and research. objectives, and presented in descriptive form". Data analysis in this research was carried out by summarizing the observed data into descriptive form.

Steps to find out the number of students who have high numeracy skills can be done through the following steps:

1. Each indicator is given a score according to the conditions in the field
2. Calculate the total number of scores that students have obtained
3. Observation data on student learning processes from the Student Numeracy Observation Sheet, by applying the TGT learning model assisted by missing card media using the following percentage formula:

$$\text{Percentage of students' average score: } \frac{\text{Total score}}{\text{maximum score}} \times 100\%$$

Percentage of average results of students' numeracy skills:

$$\frac{\text{Number of students who completed}}{\text{Number of students}} \times 100\%$$

After the total score is obtained for each individual, it is then converted into an average with the following success criteria:

Table 1. Average Value of Student Success Criteria

No	Success Value	Level of Success
	85-100	Very Good (A)
	70-84	Good (B)
	55-69	Enough (C)
	40-54	Less (K)
	<39	Very Poor (E)

Sugiyono Modification (2014:135)

RESEARCH RESULTS AND DISCUSSION

Results

Results of pre-action observations before implementing the learning model *Team Games Tournament* with the help of Missing Cards to improve numeracy skills in the learning process has not met the success indicator criteria applied, namely $\geq 75\%$. The results of student observations have increased from the beginning of pre-action, in cycle I to action cycle II. The average student's numeracy ability increased starting from pre-action by 29.16% to cycle I meeting 1 with a score of 41.66%, an increase of 17.43% with the value for cycle I meeting 2 getting a score of 59.09%. Furthermore, it increased again by 18.18% with the value of cycle II meeting 1 obtaining a score of 77.27% and again increasing in cycle II meeting 2 by 1.89% with a result of 79.16% with a predicate of B (good)

Table 2. Results of Recapitulation of Numeracy Ability Observation Sheet

No	Stages	Mark	Enhancement
1	Pre-action	29,16%	-
2	Cycle I meeting 1	41,66%	12,05%
3	Cycle I meeting 2	59,09%	17,43%
4	Cycle II meeting 1	77,27%	18,18%
5	Cycle II meeting 2	79,16%	1,89%

Discussion



Based on research that has been carried out starting from pre-action to cycle II, it can be seen that there has been an increase in students' numeracy skills by implementing the learning model teams *games tournament* media assisted card *lost* in class I of SD Negeri 078/I Teluk Ketapang. The procedure carried out by researchers is that there are 4 stages, namely planning, implementation, observation, and reflection.

At the planning stage for each cycle, the researcher plans and prepares the learning tools and instruments that will later be used. The learning tools are learning process plan (RPP), teaching materials, learning media, material to be taught, question sheets, teacher activity observation sheets and student numeracy ability observation sheets. At the implementation stage, each cycle is held in 2 meetings. Each meeting applies a learning model *teams games tournament* and use media card *lost*. At the observation stage, the researcher observed changes in each student's numeracy ability by filling in the student numeracy ability observation sheet. At this stage researchers can see an increase in students' numeracy skills at each meeting. At the reflection stage, researchers can analyze the results of the data that has been obtained and identify learning activities to see which actions are maintained, improved and corrected or eliminated. The results of this reflection will later be used and improve actions in the next cycle.

The research results obtained used a learning model *teams games tournament* media assisted *card lost*. As for the steps of the learning model according to (Nurdiyansyah, 2014). There are 5 levels namely: *class presentation, teams, games, tournament dan reward*.

The first step is *class presentation*, At this stage the teacher explains the main learning material that will be studied. At this stage the teacher has explained to the students the main learning material that will be studied. The second step is *stage teams*, At this stage the teacher divides students into heterogeneous groups. In cycle I, the teacher had divided students heterogeneously, but the large number of group members became a new problem, namely the unconducive classroom atmosphere. In cycle II the teacher improved the situation by reducing group members again so that class conditions were more conducive than in the previous cycle. The third step is *stage games*, The teacher explains the procedures for the game that will be played by students. At this stage the teacher has explained well and



students understand the rules of the game well. The fourth step is *stagetournament*. In this stage, students will compete to work on the questions provided by the teacher. In cycle I, the competition was less pronounced because the group numbers were too large, making it difficult for many students to discuss and end up working independently. In cycle II this problem was overcome by shrinking the group. The fifth step is *stagereward*. At this stage the teacher announces and gives rewards to groups of students who have won the competition. In cycle I the teacher had not seen any gifts prepared and in cycle II the teacher had prepared the gifts more carefully.

This research shows that the use of learning models *teams games tournament* media assisted *card lost* can improve students' numeracy skills. This can be seen in the increase in meetings in each cycle where in cycle I the first meeting was with a percentage of 41.66% in the second meeting to 59.09%. In cycle II at the first meeting the percentage was 77.27%, at the second meeting it became 79.16%. This is in line with several studies that have been carried out previously, one of which was research conducted by Erlina Nur Fitriani in 2018 entitled "Improving Numeracy Skills through the Implementation of the Teams Games Tournament (TGT) Learning Model in Elementary School Students".

Teams games tournament is a cooperative learning model that can facilitate students to learn to interact and socialize with their friends to improve their numeracy skills. Students actively communicate and interact with their friends in groups. Several studies show that the dynamic process of interaction in cooperative learning can facilitate children's development of mathematical abilities (Astuti, 2015).

Apart from that, learning teams games tournaments with the help of missing cards can make students enthusiastic about participating in learning activities. Games and competitions are one of the attractions for students in classroom learning activities. Cooperative learning with a game type can help increase students' interest and ability to improve their cognitive competence (Suryaningsih & Rimpiati, 2018).



CONCLUSION

Based on the results of research and analysis of classroom action data carried out in mathematics learning in class I of SD Negeri 078/I Teluk Ketapang, it can be concluded that the application of the learning model *teams games tournament* media assisted *card lost* can improve the numeracy skills of grade 1 students in elementary schools based on increasing indicators of numeracy skills: counting and ordering many objects, matching objects with number symbols, determining tens and ones values, and solving 2-digit addition and subtraction problems.

The score obtained in the first cycle of the first meeting was 41.66% with the predicate K (poor), the second meeting increased to 59.09% with the predicate C (sufficient). In cycle II at the first meeting, it was 77.27% with the predicate B (Good) and increased again at the second meeting, namely 79.16% with the predicate B (good). The score obtained in cycle II has reached the research success criteria, namely 75%. So implementing actions using a learning model *teams games tournament* media assisted *card lost* can improve the numeracy skills of grade 1 students in elementary schools.

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