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# LITERATURE STUDY: THE PROBLEMATICS IN APPLICATING COOPERATIVE LEARNING MODEL TYPE TEAMS GAMES TOURNAMENTS (TGT) AND ALTERNATIVE COMPLETION

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## Abstract

Various learning models have been applied in teaching and learning activities. However in the practice there are some problems in its application. One of them is cooperative learning model type Teams Games Tournaments (TGT). This research uses literature study method and analysis of various problems of application of cooperative model of TGT type and its solution alternative. The result of this research is step modification / procedure of TGT learning model in the more effective and efficient time.

Keywords: Cooperative Learning, TGT Model

## 1. Introduction

Today, education has undergone rapid changes. Various learning models have been widely used in the learning process to materialize the learning that can guide learners achieving the goals that have been set.

The teacher's job is to seek the atmosphere of the classroom while the learning takes place in favorable conditions and attracts the attention of the students. This is because learning will be effective when it is done in a pleasant condition.

Cooperative learning model is one of the learning models that is used as an alternative to provide innovation in learning. This model has several advantages, which allows students to achieve success in learning, training skills, creating an active interaction between students and teachers in a relaxed and fun learning environment (Isjoni: 2010)

Cooperative learning model is a set of teaching strategy, which involves students to work in collaboration to achieve learning objectives. This type of cooperative learning has the following three essential components: (1) group goals; (2) individual accountability; and (3) opportunities for equal success

One of the models of cooperative learning is the type of Teams Games Tournaments (TGT). In this model students play the game with other team members to gain an additional point for their team score. TGT can be used in a variety of lessons, from exact science, social and language from elementary level (elementary, junior high) to university.

Slavin (2008), reports some research results on the influence of cooperative learning on student achievement that explicitly expressed the benefits of TGT learning, as follows: (1) Students in classes using TGT gain significantly more friends from groups they are racial than students in the traditional classroom; (2) Improving student's sense / perception that the outcomes they get depend on performance rather than on luck; (3) TGT increases social self-esteem in students but not for a sense of their academic self-esteem; (4) TGT increases cooperativeness of others (verbal and non-balance cooperation, less competition); (5) Higher student involvement in learning together, but using more time; and (6) TGT increases student attendance at school in adolescents with emotional disturbance, fewer receiving suspension or other treatment.

Cooperative learning model Teams Games Tournaments (TGT) is considered to improve student's motivation and learning outcomes. Because students can learn more fun, and can foster responsibility, honesty, cooperation, healthy competition and learning engagement.

In addition to having advantages, the TGT learning model also has weaknesses. This is supported by a research conducted by Irwanti (2014), concluding that learning with Teams Games Tournaments (TGT) model with Realistic Mathematic Education (RME) approach does not result in better learning achievement than the Numbered Head Together learning model (NHT) on the subject of the linear program. Allegedly in the implementation of learning model type Teams Games Tournaments (TGT) there are some problems that are less effective.





The exposure of the problem encourages the author in providing alternative solutions to the problematic in the application of learning models Teams Games Tournaments (TGT) on learning mathematics. Alternative solutions are expected to minimize the constraints that occur so as to provide greater opportunities for success.

## 2. Method

The study uses literature study. Literature is way of solving the problem stracing the ancient sources that have been made previously. The kind of literature used in this paper is the literature of primary and secondary literature. Primary literature are works of original writing which contains a study on the new theory, or explanation of an idea in various fields. While the secondary literature is literature that contains information about the primary literature. Secondary literature offers primary literature by way of summarizing index, so the secondary literature does not contain new knowledge, but merely repeating an existing organize knowledge.

## 3. Result

The Teams Games Tournaments (TGT) model of cooperative learning is developed originally by David De Vries and Keath Edward in 1995. Slavin (2008) found that TGT successfully improves basic skills, achievements, positive interactions among students, self-esteem and attitudes acceptance of different students. In the TGT learning model, students study the material in the classroom. There are five components of the TGT learning model, namely: the presentation stage in class, team, game, tournament, and team recognition.

to Khuiru Ahmadi According (2012)cooperative learning model Teams Games Tournaments (TGT) is one type or model of cooperative learning that is easy to implement, involving the activities of all students without having any status differences, involving the role of students as peer tutors and contains elements of game and reinforcement. Learning activities with games designed in cooperative learning model Teams Games Tournaments (TGT) allow students to learn more relaxed as well as foster responsibility, cooperation, healthy competition and learning engagement.

Each student is placed in a group consisting of 3 low, moderate, and high-ability men. This composition is recorded in a special table (tournament table), which each week must be changed. In TGT each member is assigned to learn the material first with its members, then they are tested individually through academic games. The value they earn from the game will determine the score of their respective groups (Huda: 2011).

The procedures in Teams Games Tournaments (TGT) learning model according to Huda (2013) are as follows:

1. Study Team

Students deepen, reviewing and studying materials cooperatively in this team. Group determination is done heterogeneously with the following steps:

a. Making a list of student's academic rankings

b. Limiting the maximum number of members per team are 4 students.

c. Numbering students from the top (eg 1, 2, 3, etc.)

d. Making each team heterogeneous.

2. Tournament

After forming a team, students start competing in the tournament. Tournament determination is done homogeneously with the following steps:

a. Using a pre-made ranking list

b. Establishing groups of 3 or 4 students each

c. Determining each member of each group based on equality of academic ability

The formats applied are:

a. Providing cards that have been numbered (eg from 1-30) to each group

b. Asking each card before it is shared with the Student

c. Creating an answer sheet that has already been numbered.

d. Sharing an envelope on each team containing cards, question sheets, and answer sheets.

e. Instructing the student to open the card

f. Appointing the highest number holder to read the question first

g. Directing the first student to take a card from the envelope and read out the number, then the second student (who has the questionnaire) read the question aloud, then the first student answers the question, then the third student (who has the answer sheet confirms whether the answer is right or wrong)

h. Using rules if the answer is correct, then the first student takes the card, but if the answer is wrong, then the second student can help answer it. If true, they still hold the card. But if it remains wrong, the card should be discarded.

i. Scoring

Scoring is done for all tournament tables. Each player can donate 2 to 6 points to his / her study team. Points of the study team will be totaled as a whole.



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about the TGT. Provision of motivation that is sometimes forgotten also affects the interest and interest of students in following lessons. In phase 2, teachers allegedly only convey material to students with direct instruction through lectures so that less meaningful.

Table 4

C-3

Phase the problematic 3 allegedly experienced by teachers and students. Teachers need preparation in classifying student's heterogeneously. While the problems experienced by students in this phase of the Problematic suspected is in the learning stage of this team the team members are not entirely really learn. Another problem that is suspected to occur is that members with high academic ability are less accustomed and difficult in giving explanations to other students. And in this phase there is usually a commotion because students are given freedom in discussion.

Phase 4 is Tournament. Here is an illustration of heterogeneous group placement to a homogeneous tournament table in figure 1.

Figure 1 Placement of a tournament table

#### Source: Slavin (2008)

In this stage the problematic that supposedly arises is the conditioning of the class long enough because it has to set the table of the tournament so that it takes time if the preparation is not done. At the time of the tournament progresses, it is likely that in homogeneous groups there are some students who are misplaced so that the game is less balanced. The lack of care of teachers in this placement is a problem. Another problem that arises is that students are less focused on the material, but only focus on the rules of the game given because the rules are too complicated / less simple for elementary school level. In addition time wasted for recording students own scores.

If the number of groups is not equal, then there is a problem where students only rely on the representative group members. So, not all members of the group take part actively. Only the students representing that stand out. Whereas the game /

in applying this model, Yanti (2013) says that the average score of student's learning independence on cooperative learning type TGT includes high improved reasoning criteria, ability and mathematical connections of learners who follow cooperative learning type TGT better than those who follow direct learning. In addition, Vello (2016) A recommendation was made to incorporate Cooperative TGT as a pedagogical approach to enhance interest in actively learning mathematics with peers via tournaments among students. Students in Cooperative TGT classrooms have also learned to socialize while learning mathematics. As for other studies that might strengthen this study from Wikanengsih (2005) in their research TGT was used cooperatively in the mathematics class in the general government secondary schools. This model encourages students to be competitive, cooperate with other students and become more active and creative in their learning. Their findings suggest that students using TGT cooperative models perform better than those who are conventional learning models.

Different from the results of this study, some researchers do not find the TGT model better than the conventional model. Lutfiatul (2009) discusses the use of cooperative learning method type TGT (Teams Games Tournament) resulting a learning achievement that is not different from conventional teaching method (varied lecture) either for high, medium and low student learning interest. Allegedly in the implementation of learning model type Teams Games Tournaments (TGT) there are some problems that are less effective

Based on the literature, it can be concluded the steps of TGT model and problematic in its application so that the result of the learning process is not maximal.

- Phase 1 Conveying goals and motivating students
- Phase 2 Presenting the material and learning
- Phase 3 Formating of heterogeneous groups
- Phase 4 Tournament
- Phase 5 Evaluation
- Phase 6 Group Award

The suspected problematic in phase 1 at this stage is, it is assumed that the teacher conveyed the purpose, task, or activities that the student should do / instruction in introducing the less obvious TGT. If the TGT is not understood by the students so in the next implementation of TGT cannot run smoothly. At this stage it is important for a teacher to be able to transfer information





tournament should be designed to test the student's knowledge gained from class presentations and teamwork.

Phases 6 and 7 are group evaluations and awards. At this stage it is assumed that when the time is widely used for the previous phase, then the evaluation process is not very meaningful for the students.

#### 4. Disscusion

According to Taniredja (2013) the TGT model is one of the learning models in which students undertake group learning and students of equal ability will be reunited in a competition or tournament held at the end of each unit of the subject or weekend. In addition to having advantages, this model also has some drawbacks that there is possibility of students do not provide opinions in the discussion, requires considerable learning time, the possibility of causing chaos in the classroom.

Based on the problems described in the results, it is given several alternative solutions to improve the effectiveness of the TGT model.

- 1. The time required in the Teams Games Tournaments (TGT) learning model cannot be done briefly so it is necessary to schedule the activities. This means preparation should be more prepared.
- 2. In class presentations, may use audiovisual presentations as well as other learning media. So, students can pay more attention during the class presentations, as it will greatly assist them in working on discussions, games and tournaments. In line with the opinion of Abdus (2015) It is quite difficult to run a teacher with improper pedagogic skills. Therefore, it might be recommended ICT skill as well as pedagogic skills for conducting the classes.
- 3. In the work phase of the team or phase 3, the teacher should provide an explanation of what it means to work in a team. If necessary, applicable team rules written on the board as follows.
  - Each student has a responsibility to ensure that one friend has studied the material
  - No one can stop learning until all teams master the material
  - Ask the teams for help first before asking the teacher



Figure 2. Example Rules in Phase 3

4. At the stage of the game selection tournaments used should be designed to test the student's understanding compiled in questions relevant to the material. Besides, in order for the learning process of TGT model to get a picture of the student's development, from each individual, it must be designed a game that will be able to assess individual ability at once.

The design of this game should be adjusted to the class conditions. The problems discussed in this phase are the complexity of rules and errors in the placement of the tournament table. So the researcher modifies the tournament table to make it easy in conditioning the room and students. There is only 1 tournament table where the teacher are there. Student come to the tournament table by turn.

The first question is with the low difficult level question. Representing students are the students with low academic ability.

Figure 3. Ilustrasion for the first question, the low dificult question

The second question is the question with medium difficulty. Representative students are the students with medium academic diffuculty.







Figure 4. Ilustrasion for the second question, the middle dificult question

The last question is the question with high difficulty. Representative students are the students with high academic diffuculty.



Figure 5. Ilustrasion for the last question, the high dificult question

This game / tournament modification is in line with the research by Yuli (2015) who uses Snake Media Appliances and Media Question Card. The result of the research stated that the TGT learning model using Snake Stage media is as effective as TGT learning model using Question Card media to the student's mathematics learning result. Broadly speaking, alternative solutions from the problematic in the application of TGT model is the planning of time, improvement of teacher's ability, and game modification.

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