The Effect of Cooperative Learning Models and the Ability of Creative Thinking on the Outcomes of Learning Music Art

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ABSTRACT

The learning process is an activity that can help students achieve predetermined educational goals. The learning process can run effectively if all components that are influential in the learning process support each other in order to achieve goals. These components include students, teachers, curriculum, methods, facilities and infrastructure as well as the work environment. Of these components the most influential is the teacher.This study aims to: (1) identify the differences in student learning outcomes who are taught with the TGT cooperative learning model and the NHT type cooperative learning model, (2) determine the differences in learning outcomes of students who have high and low creative thinking skills, and (3)) know the interaction between learning models and the ability to think creatively on student learning outcomes. The research method used was a quasi experimental design with a 2x2 factorial design. The subjects in this study were students of class XI IPA at SMA Negeri 1 Doloksanggul as the experimental class and the control class. The results showed that: (1) the learning outcomes of students who used the TGT type of cooperative learning model were significantly better than the NHT type of cooperative learning model, (2) the learning outcomes of students who had high creative thinking abilities were better than those who had low creative thinking skills, (3)) there is a significant interaction between the learning model and students' creative thinking skills on student learning outcomes.

Keywords: Learning Model, TGT, NHT, Creative Thinking Ability

1. INTRODUCTION

Education is the process of changing the attitudes and behavior of a person or group of people in an effort to mature humans through teaching and training efforts. In teaching and training efforts, of course through methods and processes related to teaching staff, namely people who provide teaching and training personnel.

Music teachers should not expect to be able to apply theories unthinkingly to their lived situations, they can find ways to interrelate theory and practice by thinking imaginatively and critically about what they do [1]. Senior High School (SMA) is an educational institution that provides services for natural sciences, social sciences, mathematics, sports, arts and culture, and others. School as a formal educational institution must provide knowledge and skills to students to prepare competent human beings. Therefore, teachers are expected to be able to form students who are skilled and

have proficiency in various fields of science including in the field of cultural arts which is based on the 2013 curriculum covering fine arts, dance, theater and music.

Art lessons that are carried out in the spirit are explained the above embodies these principles and must be an entirely natural part of the learning process in the final years of higher education [2]. Art or art is divided into four branches, namely music, dance, fine arts and theater arts. The four branches of art are distinguished based on the elements of the media used. In music, the media used and worked on are sound and tone. In dance, the media used is movement. In fine arts, the media used is visual. In theater, the media used is acting or theater.

Music Arts learning in schools consists of theory and practice. One of the subjects in the Music Arts subject is about the concept of western music which consists of block notation to diatonic scales. Formally trained musicians have more admiration and respect from the

general public over their informally trained counterparts [3].Music Arts lessons, especially in learning scales, are still less attractive to students. This is because the learning methods provided by the teacher are still monotonous. Teachers still rely on the lecture method with information sourced from the teacher. This one-way information and communication makes students wait more without doing anything. Teachers act without giving students the opportunity to express their opinions or knowledge regarding information obtained from other sources related to the material being studied. As a result, several problems arise during both theoretical and practical examinationstheater.

It is an undeniable fact that many students still underestimate the subject of cultural arts, especially music. Music art lessons are considered trivial because they are not included in one of the subjects in the National Final Examination. Therefore the results of learning the art of music in schools are not optimal and make students lack the knowledge and skills in playing music.

Students' learning outcomes of the art of music still have not shown a better change than before. Learning the art of music in schools is intended to cultivate and improve students 'talents and skills so that the talents that exist in students can be developed into a good and useful musical art creativity for students' future. On mentioning Musical Intelligence, we should understand that it includes "performance, composition, and appreciation of musical patterns". But on the contrary, what is the goal of learning the art of music is not easy to achieve because of the low student learning outcomes [4].

The process of making students active and allowing them to explore and compile information, it is anticipated to benefit from some special methods of teaching music that are specific to the public and fields in the process of music education [5].

Students who have high creative thinking will be motivated to try new things such as knowing the material and concepts of western music and playing musical instruments. Students are able to use various musical instruments and their abilities to play these musical instruments or collaborate with other musical instruments.

The learning process is an activity that can help students achieve predetermined educational goals. The learning process can run effectively if all components that are influential in the learning process support each other in order to achieve goals. These components include students, teachers, curriculum, methods, facilities and infrastructure and work environment. Of these components the most influential is the teacher. Because the teacher can manage the other components. The role of the teacher in the learning process greatly determines student success, because it is the teacher who directly interacts with students at school.

Learning is basically an attempt to direct students into the learning process so that they can achieve learning objectives in accordance with what is expected. Learning should pay attention to the individual conditions of children because they are the ones who will learn. Students are individuals who are different from each other, have their own uniqueness that is not the same as others. Therefore, learning should pay attention to the individual differences of the child, so that learning can actually change the condition of children from those who don't know to know, from those who don't understand to understand and from those who behave less well to become good. The real condition of children like this has received less attention among educators. This can be seen from the attention of some teachers / educators who tend to pay attention to the class as a whole, not individually or in groups of children, so that individual differences get less attention. Another symptom is seen in the fact that many teachers use a learning model that tends to be the same every time a class meeting takes place.

Seeing the large number of goals expected from learning activities, it is certainly not easy to get good learning outcomes for students. Likewise with the use of learning models, of course it is not easy to obtain good learning outcomes by applying only a learning model without including students' creative thinking abilities in learning [6]. Learning objectives will be achieved well if students have adequate creative thinking power. With creative thinking, students are expected to be able to propose various problem solving approaches [7].

To solve the gaps that occur in learning Music Arts, the researcher offers a Team Game Tournament (TGT) type of cooperative learning model. The TGT model of cooperative learning is a type or model of cooperative learning that is easy to apply, involves the activities of all students without having any status differences, involves the role of students as peer tutors and contains elements of play and reinforcement in line with the findings. Teachers are best situated to influence students' use of social media for learning purposes when they have an understanding of students' social media practices for learning and can leverage and/or support students to develop the ability to benefit from the high levels of connectivity [8-9].

In TGT students are formed in small groups consisting of three to five heterogeneous students, both in academic achievement, gender, race, and ethnicity. In TGT academic tournaments are used, where students compete as representatives of their team against other team members who have achieved similar results or achievements in the past. The components in TGT are the presentation of material, teams, games, tournaments, and group awards.

Numbered Head Together (NHT) cooperative learning is the easiest type to apply to students, especially for beginners. This learning model emphasizes specific

structures designed specifically to influence student interaction, in other words, NHT is a type of cooperative learning model developed to involve more students in studying the material covered in a lesson and checking their understanding of the lesson content. instead asking questions to the whole class [10-11].

Success in education is influenced by several factors. These factors can be grouped into two, namely: internal factors and external factors. One of the factors from within students is thought to influence success in education is students' creative thinking. Creative thinking has become an important part of educational discourse to improve the quality of education and learning.

2. METHOD

This research will be conducted in class XI SMA Negeri 1 Doloksanggul in the odd semester of 2019/2020 from September 2019 to October 2019. Good for instrument testing and research implementation. The time allocation is designed to use 8 (eight) x meetings with a time allocation for each lesson hour is 45 minutes.

2.1 Research Procedure

The procedure for implementing the treatment in the two classes of research samples that had been previously determined was given learning using different learning models. Class XI IPA1 totals 36 students who are taught with the TGT learning model, while class XI IPA2 totals 36 students who are taught using the NHT learning model [12].

2.2 Implementation of Treatment

2.2.1 Preparation phase:

Provide information to the school about research activities. Develop a research schedule. Determine the main material to be researched to prepare the necessary learning tools, such as a Learning Implementation Plan (RPP). Prepare a learning outcome test instrument that is in accordance with the indicators that are first tested for validity by validating the questions to the validator, preparing the discussion and answer keys of the instrument, and preparing the material to be used in experimental classes 1 and 2.

2.2.2 Implementation Stage

Determining the sample class from the existing population by means of Randomized Control-Group Only Design, namely by writing each class on a piece of paper then rolled up and randomly selected then carry out a pre-test, aiming to get a picture of the students' initial ability to answer questions before being given different treatment about the material to be discussed by conducting pretest data analysis, namely calculating

normality, homogeneity, whether the sample has the same initial ability or not. Give different treatment to the two sample classes.

a) Experiment Class 1

1) The first step, the teacher presents the TGT type of cooperative learning model by exploring students' initial knowledge and attaching it to the material to be studied, namely about learning Music Artwork

2) The teacher presents the learning content that will be studied in the material Appreciating Music Artwork, namely in the form of Music Art learning sub-materials.

3) Then the teacher strengthens students 'cognitive by asking students to summarize and link the sub-material into an organized material unit by pouring it into student learning based on the students' memory and creative thinking abilities.

b) Experiment Class 2

1) The first step, the teacher presents the NHT learning model. by digging up students' initial knowledge and attaching it to the material to be studied, namely about learning the Art of Music.

2) The teacher presents the learning content that will be studied in the material Appreciating Music Artwork.

3) Then the teacher strengthens students 'cognitive by asking students to summarize and link the sub-material into an organized material unit by pouring it into student learning based on the students' memory and creative thinking abilities.

3. RESULT AND DISCUSSION

3.1 Result

The results of this study indicate that there is an effect of the Teams Games Tournament (TGT) type learning model on students' creative thinking skills in learning music art material in class XI IPA at SMA NEGERI I Doloksanggul. Where the average value of students' creative thinking skills taught with the Teams Games Tournament (TGT) type learning model is 15.83 ± 1.87 ($\pm$ SD) higher than conventional learning 14.16 ± 2.40. So that the average value of students' creative thinking skills taught with the Teams Games Tournament (TGT) type learning model is 11.79% significantly higher than conventional learning. This is because in the TGT learning model, students obtain and obtain information by making observations and / or experiments to look for questions or problem formulations by asking and finding out [13].

Description of the students' pretest in learning the Music Art material in class XI IPA at SMA NEGERI I Doloksanggul with the Teams Games Tournament (TGT) type learning model with N = 30 students obtained an

average pretest score of = 57.77 with a minimum value of = 40, 00; maximum value = 76.67; and standard deviation = 10.29. Description of the students' pretest in learning the music art material in class XI IPA at SMA NEGERI I Doloksanggul with the Numbered Head Together (NHT) type of learning model with N = 30 students obtained an average score of the student pretest = 58.88 with a minimum value = 36, 67; maximum value = 73.33; and standard deviation = 8.59. Description of the students' pretest in learning the material of Music Arts in class XI IPA at SMA NEGERI I Doloksanggul with conventional learning models with N = 30 students obtained an average pretest score of = 37.88 students with

Table 1. Description of student pretest

Learning model	Average Pretest Students	Minimum Value	Maximum Value	Standard Deviation
TGT	57,77	40,00	76,67	10,29
NHT	58,88	36,67	73,33	8,59
Convensional	37,88	20,00	60,00	8,73

a minimum value = 20.00; maximum value = 60.00; and standard deviation = 8.73.The description of the student pretest can be seen in Table I.

Description of student learning outcomes in studying Music Art material in class XI IPA at SMA NEGERI I Doloksanggul with the Teams Games Tournament (TGT) type learning model with N = 30 students obtained an average value of student learning outcomes of = 69.33 with a minimum value = 43.33; maximum value = 90.00; and standard deviation = 11.65. Description of student learning outcomes in studying the Art of Music material in class XI IPA at SMA NEGERI I Doloksanggul with the learning model type Numbered Head Together (NHT) with N = 30 students obtained an average value of student learning outcomes = 72.66 with a minimum value = 43.33; maximum value = 93.33; and standard deviation = 10.37. Description of student learning outcomes in studying the Art of Music material in class XI IPA at SMA NEGERI I Doloksanggul with a conventional learning model with N = 30 students obtained an average value of student learning outcomes = 46.11 with a minimum value = 20.00; maximum value = 73.33; and

Table 2. Description of student learning outcomes

Learning model	Average Pretest Students	Minimum Value	Maximum Value	Standard Deviation
TGT	69,33	43,33	90,00	11,65
NHT	72,66	43,33	93,33	10,37
Convensional	46,11	20,00	73,33	11,97

standard deviation = 11.97.Descriptions of student learning outcomes can be seen in Table II.

Description of students 'creative thinking skills in studying Music Art material in class XI IPA at SMA NEGERI I Doloksanggul with the Teams Games Tournament (TGT) type learning model with N = 30 students obtained an average value of students' creative thinking skills of = 15.83 with a value minimum = 11.00; maximum value = 19.00; and standard deviation = 1.87. Description of students 'creative thinking skills in studying Music Art material in class XI IPA at SMA NEGERI I Doloksanggul with the Numbered Head Together (NHT) type of learning model with N = 30 students obtained an average value of students' creative thinking skills of = 16.76 with a value minimum = 13.00; maximum value = 21.00; and standard deviation = 1.86. Description of students 'creative thinking skills in learning the material of Music Arts in class XI IPA at SMA NEGERI I Doloksanggul with conventional learning models with N = 30 students obtained an average value of students' creative thinking skills of = 14.16 with

Table 3. Description of students' creative thinking ability

Learning model	Average Pretest Students	Minimum Value	Maximum Value	Standard Deviation
TGT	15,83	11,00	19,00	1,87
NHT	16,76	13,00	21,00	1,86
Convensional	14,16	10,00	19,00	2,40

a minimum value = 10.00; maximum value = 19.00; and standard deviation = 2.40.The description of students' creative thinking abilities can be seen in Table III

Data on pretest, posttest (learning outcomes), and students' creative thinking skills taught using the TGT, NHT and conventional learning models are normally distributed.

Data on pretest, posttest (learning outcomes), and students' creative thinking abilities taught by the TGT, NHT and conventional learning models are homogeneous. Based on the results of hypothesis testing, it is found that:

1. There is an effect of the Teams Games Tournament (TGT) type learning model on students' creative thinking skills in learning Music Art material in class XI IPA at SMA NEGERI I Doloksanggul (F-count = 4,621; Sig. = 0.036).

2. There is an effect of the Teams Games Tournament (TGT) type learning model on student learning outcomes in studying Music Art material in class XI

IPA at SMA NEGERI I Doloksanggul (F-count = 2.860; Sig. = 0.018).

3. There is an influence of the Numbered Head Together (NHT) type of learning model on students' creative thinking skills in studying Music Art material in class XI IPA at SMA NEGERI I Doloksanggul (F-count = 48,709; Sig. = 0,000)

4. There is an effect of the Numbered Head Together (NHT) type of learning model on student learning outcomes in studying Music Art material in class XI IPA at SMA NEGERI I Doloksanggul (F-count = 4.034; Sig. = 0.049).

5. There is a relationship between the ability to think creatively and student learning outcomes using the TGT, NHT and conventional learning models on the material of Music Arts at MAN I Padangsidimpuan (F-count = 50,956; Sig. = 0,000).

(1). Advanced Test (Post Hoc)

Based on the results of the post hoc test on the Tukey Test, it was found that the learning outcomes of students taught by learning NHT 72.66 ± 10.37 (± SD) had a higher value than other learning, but not significantly different from the learning outcomes of students taught by learning TGT 69.33 ± 11.65 (Significant = 0.494). The learning outcomes of students taught by conventional learning 46.11 ± 11.97 have the lowest value, and are very significantly different from the learning outcomes of students taught by other learning (Significant = 0.000).

(2) Turkey test

The results of the post hoc test on the Tukey Test showed that the creative thinking skills of students taught by learning NHT 16.76 ± 1.86 (± SD) had a higher value than other learning, but not significantly different from the creative thinking abilities of students taught with learning TGT 15.83 ± 1.87 (Significant = 0.193). The creative thinking ability of students taught by conventional learning 14.16 ± 2.40 has the lowest score, and is significantly different from the creative thinking skills of students taught by other learning (Significant = 0.007).

3.2 Discussion

The results of this study indicate that there is an effect of the Teams Games Tournament (TGT) type learning model on students' creative thinking skills in learning music art material in class XI IPA at SMA NEGERI I Doloksanggul.

The benefits of this research are as follows:

(1) To enrich and add to the repertoire of knowledge in order to improve the quality of learning, especially those related to cooperative learning models and students 'creative thinking skills that arouse students' enthusiasm for learning, The difference in student learning outcomes

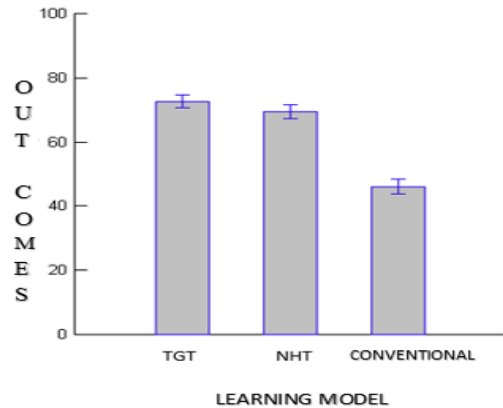taught by TGT, NHT, and conventional learning can be seen in Figure 1

Figure 1 Differences in Student Learning Outcomes Taught with TGT, NHT, and Conventional Learning

(2) Contribution of thoughts and reference material for teachers, prospective teachers, managers, developers, educational institutions and further researchers who wish to examine in more depth the results of using the TGT model with the NHT strategy and student creative thinking and its effect on student learning outcomes.The difference in students' creative thinking abilities taught by TGT, NHT, and conventional learning can be seen in Figure 2.
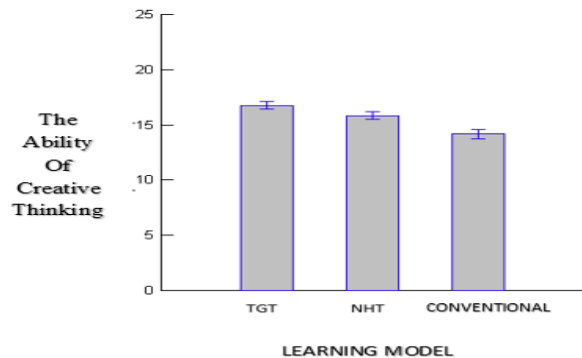

Figure 2 Differences in Creative Thinking Ability of Students Taught with TGT, NHT, and Conventional Learning

From the results of the research data processing, there are differences in the learning outcomes of students learning the art of music using the TGT model which is higher than the learning outcomes of students taught with the NHT model

4. CONCLUSION

Based on the quality and results of proven research, it can be concluded that:(1) There is an effect of the Teams Games Tournament (TGT) type learning model on students' creative thinking skills in studying Music Art

material in class XI MIA SMA Negeri 1 Dolok Sanggul. (2) There is an effect of the Teams Games Tournament (TGT) type learning model on student learning outcomes in studying Music Art material in class XI MIA SMA Negeri 1 Dolok Sanggul.(3) There is an effect of the Numbered Head Together (NHT) type of learning model on students' creative thinking skills in studying Music Art material in class XI MIA SMA Negeri 1 Dolok Sanggul.(4) There is an influence of the Numbered Head Together (NHT) type of learning model on student learning outcomes in studying Music Art material in class XI MIA SMA Negeri 1 Dolok Sanggul.(5) There is a relationship between the ability to think creatively and student learning outcomes using the Teams Games Tournament (TGT) type, Numbered Head Together (NHT) type and conventional on the material of Music Arts at XI MIA SMA Negeri 1 Dolok Sanggul.

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