**CHAPTER I**

**INTRODUCTION**

1. **Background**

Education has a very important role in the development of a nation. Therefore, education must continue to be developed in accordance with the progress of time. It was in line with the purpose of education to improve the quality of human resources. One attempt to improve the quality of human resources was through the learning process in schools. Teachers as educators in implementing the learning process was expected to selectively choose a number of teaching strategies according to the subject or the material being taught.

Mathematics is one of the subjects taught at every level of formal education in Indonesia, which has a large role in daily life. Mathematics has a very significant role in achieving national education goals. The fact proves that the higher math mastery of a nation, the higher the science and technology of the country.

Basically, mathematics had the abstract properties, so many students had difficulty in studying it. Hudoyo (Tenritte, 2016:2) said that mathematics regard to ideas and abstract concepts, also arranged hierarchically and deductive reasoning. So, in the learning of mathematics there should be no steps / stages of concept that is passed. This makes students less enjoys math. Thus, the learning outcomes to be low, especially if teacher dominated the classroom than students. In mathematics at school, teachers should be able to created learning conditions that can make students more active in their learning and formed students personal who are skilled in terms of cooperation in solving every problem given.

Based on classroom observations by the author, there was information that the factors causing the mathematics learning outcomes to be low generally is a learning model that is often used, which is direct teaching model. Direct instructional model is one model of learning which tends to be centered on the teacher. Students tend to be passive, lack of cooperation and lack of participation in the learning process.

When students are passive or only receive from teacher, there is a tendency to forget the material that has been given. However, when students learn actively, meaning students who dominated the learning activity. This means that students actively used the brain, both to found the main idea of the subject matter, solved problems, and applied what they learned into the new issues that exist in real life. This will certainly make the process of learning becomes a meaningful activity that is existence freedom to actualize all the potential of humanity, so that students can be more active, creative and independent in the learning process.

Learning model is one of the factors that determine student learning outcomes. Less precisely a teacher in selecting a learning model will greatly influence the success of the learning process which will ultimately have an impact on student learning outcomes. Therefore, teachers should be good at choosing and applying the learning model which enable students in a positive and educative so that they can play an active role and be motivated in the learning process.

One of the learning model that can make students actively learn and can improve learning achievement is by implement cooperative learning model. Huda (2013:32) stated that cooperative learning refers to a method of learning where students work together in small groups and help each other in learning. Additionally, Slavin (2010:10) said that all methods of cooperative learning contribute ideas that students who work together in learning and be responsible for his teammates were able to make themselves learn equally well.

Cooperative learning generally involve groups of 4 students with different abilities and some were using teams with different sizes. Cooperative learning is usually put students in small groups for a few weeks or months and then tested individually on the day of the test that has been determined. Earlier, small groups have given a description of: (1) how to be a good listener, (2) how to give a good explanation, (3) how to ask good questions, (4) how to help each other and appreciate each other with a good way anyway.

Isjoni (2011:51) said that Students Teams Achievement Division (STAD) is one type of cooperative that focuses on the activities and interaction among students to motivate each other and help each other to master the subject matter in order to achieve maximal achievement. Additionally, Kurniasih (2015) has argued that type Articulation is learning with chain mail system, where each student is required to forward a message and explain to other students (partner group). Cooperative learning model type Articulation is a model of learning that requires students active in learning where students are formed into small groups, each student in the group has the task to interview the group of their friends about the new material covered.

Cooperative learning model type STAD and type Articulation are two cooperative learning model that can activate the students in the learning process where students can understand the material in their own way and create good cooperation in resolving the problems that are given, so that student learning outcomes can be improved.

The application of cooperative learning model type STAD has been used by Mustika Ayu Budhi Kristanti (2014) in his research in one of the State Junior High School in Surakarta in 2014 obtained the result of science learning of students taught by using cooperative learning model type STAD is in high category with average 88,26. The application of cooperative learning model type Articulation was once used by Yeni Kartika (2015) in his research in one of the State Junior High Schools in Lubuklinggau in 2015 on Physics subjects obtained the result of Physics learning of students taught by using cooperative learning model type Articulation is in high category with average 75,93.

Based on description above, the authors will examine the research by implementing cooperative learning model type STAD and type Articulation with the title **"The Effect of Using Cooperative Learning Model on Students’ Mathematics Learning Achievements of Students in North Toraja Regency’s Junior High Schools *(Quasi-Experimental Research Type STAD and Type Articulation)*”.**

1. **Research Question**

Based on the background described above, the problem in the research are as follows:

1. How did the mathematics learning outcomes of students taught using cooperative learning model type STAD to students at SMP Negeri 1 Rantepao?
2. How did the mathematics learning outcomes of students taught using cooperative learning model type Articulation to students at SMP Negeri 2 Rantepao?
3. **Problem Statement**

Based on the background mentioned above, the problem in this research was formulated as follows: Was the mathematics learning outcomes of students taught using cooperative learning model type STAD higher than type Articulation?

1. **Research Purpose**

Based on description above, the purpose of this research was formulated as follows:

1. To find out the mathematics learning outcomes of students taught using cooperative learning model type STAD to students at SMP Negeri 1 Rantepao.
2. To find out the mathematics learning outcomes of students taught using cooperative learning model type Articulation to students at SMP Negeri 2 Rantepao.
3. To find out whether the mathematics learning outcomes of students taught using cooperative learning model type STAD higher than type Articulation.
4. **Benefit of Research**

The expected benefits of this research are as follows:

1. For students: they could be easier in understanding the material, could improve the mathematics learning outcomes of students, could play an active role in the learning process, and also teaches socializing and collaboration among group members with the implementation of cooperative learning model type STAD and type Articulation.
2. For the teacher: could get the overview of the mathematics learning outcomes by using cooperative learning model type STAD and type Articulation.
3. For schools: a benchmark to increase the quality of learning process, learning outcomes for students, and to improve the quality of education in schools, and provide valuable contributions in order to improve teaching through cooperative learning model type STAD and type Articulation.
4. For other researchers: Can be used as material for consideration or further development, as well as references to conduct similar research.