**CHAPTER I**

**INTRODUCTION**

1. **Background**

Education has a very important role in the viability of a nation. Qualified nation can be seen from its appropriate educational system. Therefore, education in Indonesia should be able to create generations that bring positive changes for the nation development so that it can make Indonesia to be a qualified nation.

One of subject that has an important role in education is mathematics. Mathematics as a basic knowledge is a compulsory subject taught at all levels of education both elementary schools, junior high schools, senior high schools, and universities. But it can not be denied that mathematics is still considered as a difficult and boring subject. It makes mathematics to be disliked by the students and affect on the lack of students' mathematics learning achievement.

Based on the data of Trends International Mathematics and Science Study (TIMSS, 2011), mathematics learning in Indonesia is in the bottom rank. The average mathematics score of eighth grader in Indonesia ranked 38th out of 42 countries. We are even far behind compared to other ASEAN countries such as Singapore, Thailand, and Malaysia. This fact reinforce that the low quality of mathematics education in Indonesia is already very apprehensive. Therefore it is required the efforts to improve the quality of mathematics education in Indonesia.

Based on observations in Junior High School 3 Makassar, the learning model used by the teachers in teaching mathematics is still a teacher-centered learning model where the teacher becomes a source of knowledge. It makes the students just listen to what has been explained by the teacher so that the knowledge recieved is not last longer in the students' memory. No variation in learning model used also caused students bored and irresponsive in the teaching-learning process. As a result, students become passive in the learning process and have an impact on the learning achievements.

The efforts to improve the quality of mathematical knowledge ideally starting from improving the learning process that is carried out by the teacher by using a learning model that will be able to change the negative views of students towards mathematics into an interesting and fun lesson, and a lesson that provide many opportunities to each student to be actively involved in learning process. One of learning model that can become a solution is cooperative learning model that is learning by way of placing some students in small groups and give them one or several tasks (Posamentier, 1999: 12) Cooperative learning provide opportunities for students of different backgrounds and conditions to depend on each other on common tasks and through the use of cooperative reward structure the students can learn to respect each other (Ibrahim, 2000: 57). In the cooperative learning, students believe that their success will be achieved if each member of the group succeed. The purpose of the group is not only to complete the given tasks, but also ensures that each group has mastered the tasks.

There are several types of cooperative learning model, such as cooperative learning model type Think Pair Share (TPS) and cooperative learning model type Two Stay Two Stray (TSTS). Cooperative learning model type TPS is a learning model that consists of three stages: 1) *think* is the stage where students are asked to think for themselves about the problems given by the teacher, 2) then *pair* stage, here the students will be grouped in pairs to then discuss with their partner about the problems earlier 3) share is a final stage where students are asked to share with the whole class about what they had discussed earlier with their partner. While the cooperative learning model type TSTS is a learning model where the students are divided into groups that each group consisting of four heterogeneous students, both academic achievement, gender, race or ethnicity and then discuss and share tasks each other in which two students visit to other groups to seek information and the reamin two students in the group provide information to other groups. These two types of cooperative learning model have similarities that is teaching the students how to work together in pairs and provides the opportunity for students to share information and ideas to the other groups. But the obvious difference in these two types of cooperative learning model is that in TPS type students are more directed to work in pairs so that students can easily interact and exchange opinions in a group while in TSTS type students are directed to form groups which each group consists of 4 students so that there are more ideas that arise in one group. It makes both types of cooperative learning is interesting to compare in its influence towards students' mathematics learning achievement.

In the previous research by Fauziah (2011) with the title of improving the quality of mathematics learning through cooperative learning model type Think Pair Share towards students in class VIII A of Junior High School 33 Makassar, the results is the improvement of students' mathematics learning achievement which is shown by the average of students' learning achievement after implementing the cooperative learning model type TPS reaches 77.09 and classically 57.14% of students who reach the criteria of minimum completeness (KKM) in the first cycle and then the average students' learning achievement increased to 81.91 and classically 85.71% of students who reach the criteria of minimum completeness (KKM) in the second cycle. While the research by Ratna (2012) with the title of improving students’ mathematics learning achievement in Junior High School 13 Makassar through cooperative learning type Two Stay Two Stray (TS-TS) with the contextual approach, the results of this study is the improvement of students' mathematics learning achievement shown by the average of students' learning achievement after implementing the cooperative learning model type TSTS reaches 70.34 and classically 74.29% of students who reach the criteria of minimum completeness (KKM) in the first cycle and then the average students' learning achievement increased to 74.29 and classically 91.43% of students who reach the criteria of minimum completeness (KKM) in the second cycle.

Based on the description above, the researcher interested in conducting research with the title “The Comparison Of Mathematics Learning achievement Through Cooperative Learning Model Type Think Pair Share And Type Two Stay Two Stray Towards Eighth Grade Students in Junior High School 3 Makassar”.

1. **Research Questions**

Based on the background mentioned above, the problems that will be investegated in this research are:

1. How does the description of the students' mathematics learning achievement before and after taught by using cooperative learning model type Think Pair Share (TPS) towards eighth grade students in Junior High School 3 Makassar?
2. How does the description of the students' mathematics learning achievement before and after taught by using cooperative learning model Two Stay Two Stray (TSTS) towards eighth grade students in Junior High School 3 Makassar?
3. Is there any improvement differences in students' mathematics learning achievement that taught trough cooperative learning model type Think Pair Share (TPS) and through cooperative learning model type Two Stay Two Stray (TSTS) towards eighth grade students in Junior High School 3 Makassar?
4. **Research Objectives**

The objectives of this research are as follows:

1. To find out the description of students' mathematics learning achievements before and after taught by using cooperative learning model type Think Pair Share (TPS) towards eighth grade students in Junior High School 3 Makassar
2. To find out the description of students' mathematics learning achievements before and after taught by using cooperative learning model type Two Stay Two Stray (TSTS) towards eighth grade students in Junior High School 3 Makassar
3. To determine there is an improvement difference or not in students' mathematics learning achievement that taught through cooperative learning model Think Pair Share (TPS) and through cooperative learning model type Two Stay TwoStray (TSTS) towards eighth grade students in Junior High School 3 Makassar
4. **Research Advantages**

The expected advantages of this research are as follows:

1. For researcher, the results of this research are expected to broaden the insight and experience in conducting research and provides an overview to the researcher as a prospective teacher about learning in school so that it can be used as a reference in the development of ideas in order to improve learning.
2. For teachers, the results of this research can be used as an alternative to improve the quality of learning.
3. For students, this research is expected to provide a firm understanding of mathematics learning material and the understanding can last longer in students' memory.
4. For schools, the expected results of the research can be used as an input for further research.