CHAPTER I

INTRODUCTION

1.1 Background

Education is very important for all the people. Without the education a person will be difficult adapting to the environment and can not take the maximal function in society. According to Trianto (2009) said that "education that support the construction in the future is the education that can to develop the student potential, so the student able to face and solve their problem in daily life. Education should be touch the inner potential and competence of student."

Physics is the part of natural science has many connected to the phenomena in daily life, thus the concepts is not only theory but also can proved by discovery. Physics education emphases to "understand" and "do" thus can to help the student to mastery the physics concept and then effecting to student's achievement.

The quality of education in Indonesia is very low and concern. Its can be shown in the data of UNESCO year 2012, Indonesia has the rating in 64 from 120 nations. In the last year, Indonesia has the rating 69 from 127 nations (Kompas, October 20th 2012).

The low of education quality in Indonesia can be seen in the low of student's achievement in some of lesson subject. Physics is one of the subject lesson that low student achievement. This fact is suit when the author done observation in State Junior High School 1 Tebing Tinggi, the author does interview to physics teacher (Binsar Hamoloan, S.Pd), and he said that the student achievement in physics subject is low. The average of student achievement in semester I class VII academic year 2012/2013 is 60.23, whereas the Minimal Standard (KKM) is 75. That's mean the average of student achievement is lower than Minimal Standard (KKM).

When the author do the survey to 27 students by answering the questionnaire, gotten the data that 17 students of them not like to learn physics, 7 students said

that physics is normally and then only 3 students like to learn physics. In the teaching and learning process in class student answer the questionnaire that 20 students of them like to discuss or making group in teaching process, 7 students answer using props, and no one student answer a lot of work on the problems.

So, base on the problem above there are many kind of model can be applied to improve the student's achievement and make them become active in teaching and learning process. Perhaps the way to improve the student proclivity and motivation to learn physics is to change the teaching and learning process become interest. The model that want to applied is the cooperative learning model type numbered head together arise on the concept that student will be easier to find and understand physics concept if they discuss each other. Student always learn in group to help mutually to solve the complex problems. Thus, the social essence and using peer group be a basic aspect in the cooperative learning.

Cooperative learning is emphases to make the interaction on student. Than, student active doing communication to each other. According to Louisell and Descamp (Trianto, 2009) say that "because the student work in team, so it will make good relation on student although in the different background of ethnic and ability, developing the capable in group process and problem solving". And then Stahl (Isjoni, 2009) argues that "cooperative learning can to improve the learning achievement of student and make them to be mutual assistance in social behaviour".

The cooperative learning model type numbered heads together (NHT) has been researched by M Noer, Lily Suryani, & Zuhelmi (2009), Ratnamalawati (2012), and Rika & Titin (2013), and in their research found that numbered heads together (NHT) can to increase student's achievement.

And base on the research done by Ebtan Sihotang obtained the mean of pre-test data in experiment class is 46.41 and in control class is 46.92. But after the experiment class taught by cooperative learning model type numbered heads together acquired the mean of pos-test data is 78.48 and in control class taught by

conventional learning model got the mean pos-test data is 66.41. Its show that the cooperative learning model type numbered heads together can to increase the student's achievements. But this research has the disadvantages that are not all students called by teacher, and in discussing process, the topic tend enlarge, so the time not suit to the schedule in the lesson plan.

The disadvantages in the previously research be an exercise for the next author to do correction so can to make the student's achievement more increase. The attempt that will be done by next author are, if member of a group is five the problem given also five, so every student will called in one time, to do the time allocation by in lesson plan.

From the explanation above, author to be hopeful to do the research to increase the student's achievements. The research title is, **"The Effect of Cooperative Learning Model Type Numbered Heads Together (NHT) on Student's Achievement on Sub Topic Expansion in Grade VII Semester II SMP N 1 Tebing Tinggi A.Y 2012/2013"**

1.2 Research Identification

Base on the problem above, author make the identification such as bellow;

1. The student's achievement in physics subject is low
2. The teaching and learning process is teacher centred
3. The team work and interaction of student in teaching and learning process is still low

1.3 Research Scope

To make clear the scope for discussion, it is necessary to limit the problem in this study as follows;

1. The learning model in teaching and learning process is cooperative learning model type numbered heads together (NHT)
2. The topic in this research is physics on sub topic expansion

3. This research done for student Grade VII SMP N 1 Tebing Tinggi academic year 2012/2013

1.4 Research Question

The question for this research is:

1. How the student's achievement after taught by cooperative learning model type numbered heads together (NHT)
2. How the student's achievement after taught by conventional learning model
3. How the effect of cooperative learning model type numbered heads together (NHT) on student's achievement especially on sub topic expansion

1.5 Research Objectives

After this research has been done, the author to be hopeful to get the goal such as follows:
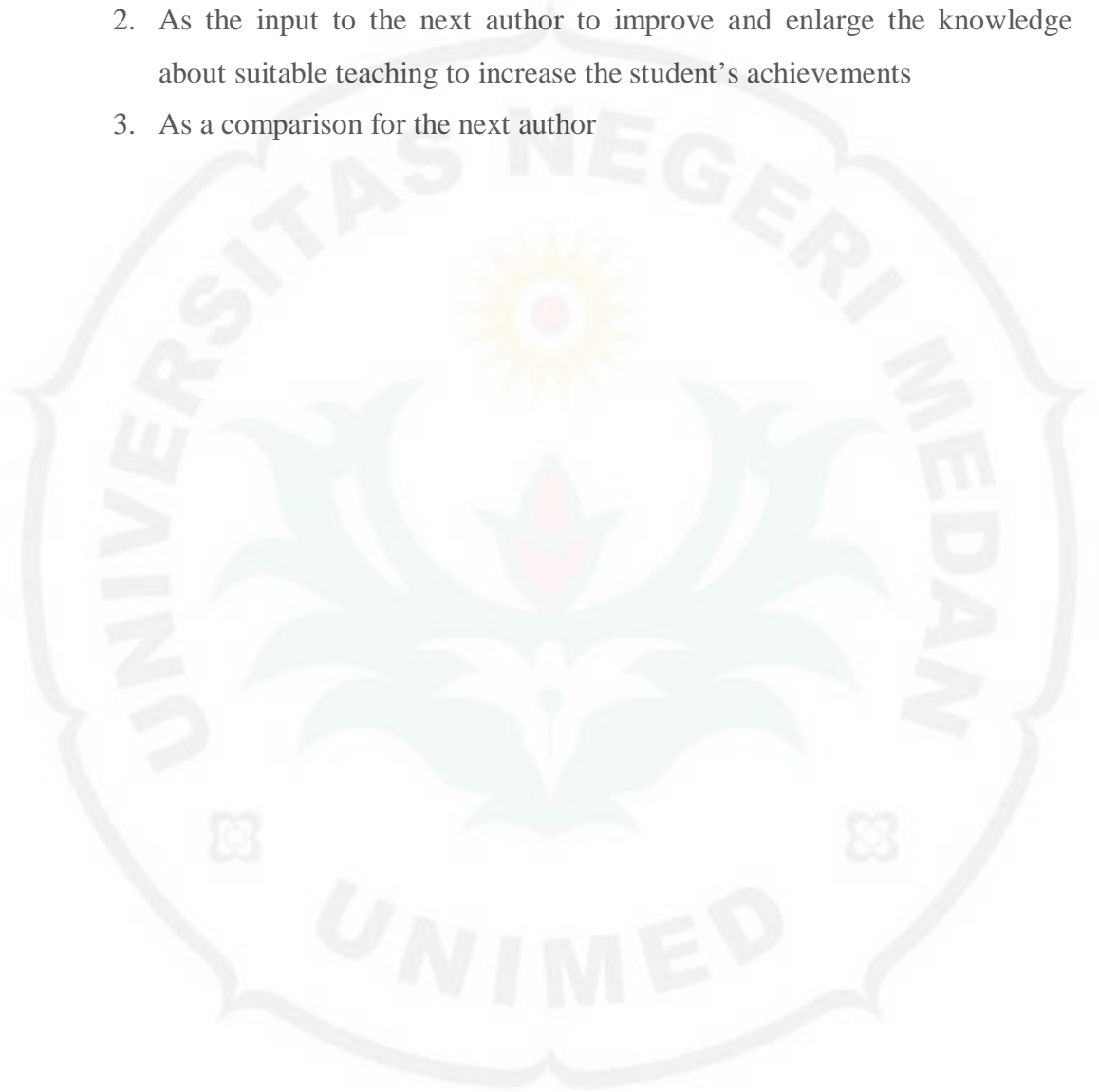
1. To know the student's achievement in physics subject taught by cooperative learning model type numbered heads together (NHT)
2. To know the student's achievement in physics subject taught by conventional learning model
3. To know the effect of cooperative learning model type numbered heads together (NHT) on student's achievement especially on sub topic expansion

1.6 Benefit of Research

Base on the objectives of research above, thus the benefit of this research is:

1. As the input to teacher that numbered heads together learning model can be applied to increase the student's achievement in physics subject

2. As the input to the next author to improve and enlarge the knowledge about suitable teaching to increase the student's achievements
3. As a comparison for the next author