

CHAPTER I INTRODUCTION

1.1. Background

Education has a very important role in the development of Indonesia fully human. Therefore, education is very necessary for the development of a wide range of science, because a quality education can improve the intelligence of a nation. Education is an important part of the national development process which involved increasing economic growth of a country. Education is also an investment in human resource development with increased skills and capabilities believed to be a contributing factor in the human effort through life.

The quality of education need to be considered to achieve the goal of education, while the quality of itself can be seen from the success achieved by a student during the teaching and learning activities. It is important in the learning process is to instill the meaning of learning activities for learners in order to learn the results beneficial to life in the present and the future. One decisive factor is how the teaching and learning process can run as expected. Meaningful learning is a learning process for the students where students are expected to be directly involved in the learning process and go directly to that knowledge.

Physics is one of sciences which very important to be learned. Physics is a science that studies natural phenomena as a whole. Therefore, by studying the physics means also studied the nature of the universe. In addition, by knowing the nature including the characteristics of the universe, human beings can find ways and tools that can help to facilitate efforts in meeting their needs. Based on it all, it is supposed that physics should be studied in enjoyable. Because studying the physics associated with human lives depend on nature. Physics discovered and developed by the problems faced by humans associated with life. From here, it appears that physics actually encouraged to be learned by everyone.

At the high school level education, Physics deemed extremely important subjects to be taught. Because, physics is one of the subjects which have great impact on the development of science and technology. In addition to providing knowledge to students, the physics subject with all the problems to train students

to think critically and creatively so that students can solve problems in everyday life. Critical thinking becomes one of the abilities to be owned by the students, it can be nurtured and developed through physics.

Most of the students admitted are interested in studying physics but others think that physics is a subject that is difficult. Because the models and media which teacher facilitate less attract students to learn physics so the impact on the activities of students in the class are passive and not oriented (disoriented). In solving the problems that teacher experience is the lack of effective models applied, It is better to upgrade the model that applied by the teacher in advance so that the model is being used more attracted the attention of students. The school which researcher choose for this research is SMA Asy-Syafi'iyah International School Medan.

Based on preliminary observation through interviewing the physics teacher in SMA Asy-Syafi'iyah International Medan showed that some students are still less active in learning physics because of the lack of interest of the student. On the other hand, the students remain diligent doing task assigned by the teacher both homework and assignments at school, but a constraint anymore for teachers is the media that applied less attention to some students so that the class be not conducive. From the preliminary observation in SMA Asy-Syafi'iyah International Medan is known that standard value (KKM) of physics that applied in that school is 70.

Based the interviews with the teacher, there are some students who received grades above the KKM average scores of 80 and there is also who scored below the standard value (KKM). Then, that is supported from the result of student's questionnaire that shows from 43 respondents of X grade, 11,6% of students receive score about 70-80, 46,5% of students receive standard value (KKM), and 41.9% of students receive score under the KKM. Those show that the students thinking ability still low and need a better improvement in learning and the media so that it will result in increased ability to think with students thinking ability in studying physics.

Then, based on the preliminary observation with questionnaire found about 65.1 % students in SMA Asy-Syafi'iyah International Medan which like

physics as an obligation and 27.9% students who interested in learning physics. Most reasons of them that physics is difficult to learn and understand. Observation data show that 79.1% students said physics is difficult lesson and 41.9% students give reason that because the situation of the class which not supported. According to Teacher's interviewing, The teacher also said that the situation of the class becoming the main causing some students not active in class and it make the lack of physics knowledge and their critical thinking ability still low.

In general, the process of learning physics in class X SMA Asy-Syafi'iyah not too bad because the learning process is still there are students who do not participate actively in the learning and there is also participating actively. Therefore the majority of students who do not participate actively in the learning of physics can eventually lead to disruption of the learning process for a class that is less conducive. It affects the underdevelopment of critical thinking ability of students in learning physics. Model that teachers already employ basically already good but less attracted the attention of some students.

In improving and upgrading the model that have been applied previously, model to be applied later have to make students active thoroughly and make the students better understand the actual physics concepts and their application in everyday life. Because by studying it will enhance student's thinking ability deepen the learning materials. Efforts to improve student's critical thinking ability and make the class are more active is by using cooperative learning model.

In cooperative learning model, there are some model types that support students to be more active in class and of course increasing the critical thinking ability. The model types such as: Teams-Games-Tournament, Student Teams Achievement Division, Jigsaw, Numbered Heads Together, and Think Pair Share that supported by constructivist theory. All the type models of cooperative are good and have own advantages and disadvantages in that implementation. One of the type models of cooperative that can support the class become more active and support the student's thinking ability is Think Pair Share. In this research, the writer uses Think Pair Share (TPS) technique. Think Pair Share (TPS) is one of cooperative learning models that expected become the alternative to make an active learning and able to increase students critical thinking ability. TPS creates

positive interdependence and individual accountability within pair is potentially responsible for the success of his or her pair if they share the result of discussion together in front of the class. A successful response equals immediate success for pair and the individual student.

In implementing it, the researcher must be able to make a media which support critical thinking ability with great content in terms of both concept and its application to be investigated in groups and regulating the allocation of time available in accordance with the lesson plan. It is expected to make students become active and enthusiastic to follow learning and increase student thinking ability.

Based on the above, can be concluded the research title is "**The Effect of Cooperative Learning Model Type Think Pair Share (TPS) towards Students Critical Thinking Ability about Dynamics Electricity Topic at Grade X in SMA Asy-Syafi'iyah International Medan**" is expected this study will be useful for students and teachers particularly in implementation of the model and media that can enhance student critical thinking ability.

1.2. Problem Identification

Based on the description of background above, problem can be identified as follows:

1. Students are considered physics difficult subjects (79,1%)
2. Lack of interest of students towards learning
3. The student's critical thinking ability still low in learning physics

1.3. Problem Limitation

Problem that developed in this paper should be limited to provide a clear description of the problems that will be reviewed. In accordance by problem identification, problem limitations of this paper are as follows:

1. Research subject is all of student in class X SMA Asy-Syafi'iyah International Medan Academic Year 2016/2017.
2. Subject Matter is Dynamic Electricity by using Cooperative Learning Model Type Think Pair Share (TPS).

3. Student's Critical Thinking ability will be researched in cognitive and psychomotor aspect.

1.4. Problems Formulation

Based on the problems limitation which described above, hence the problems formulation in this research are:

1. How is the level of student's critical thinking ability between using Cooperative Learning Model Type TPS and conventional model in dynamic electricity topic at class X SMA Asy-Syafi'iyah International Medan?
2. How the students activity using Cooperative Learning Model Type TPS in Dynamic Electricity topic at class X SMA Asy-Syafi'iyah International Medan?

1.5. Research Objectives

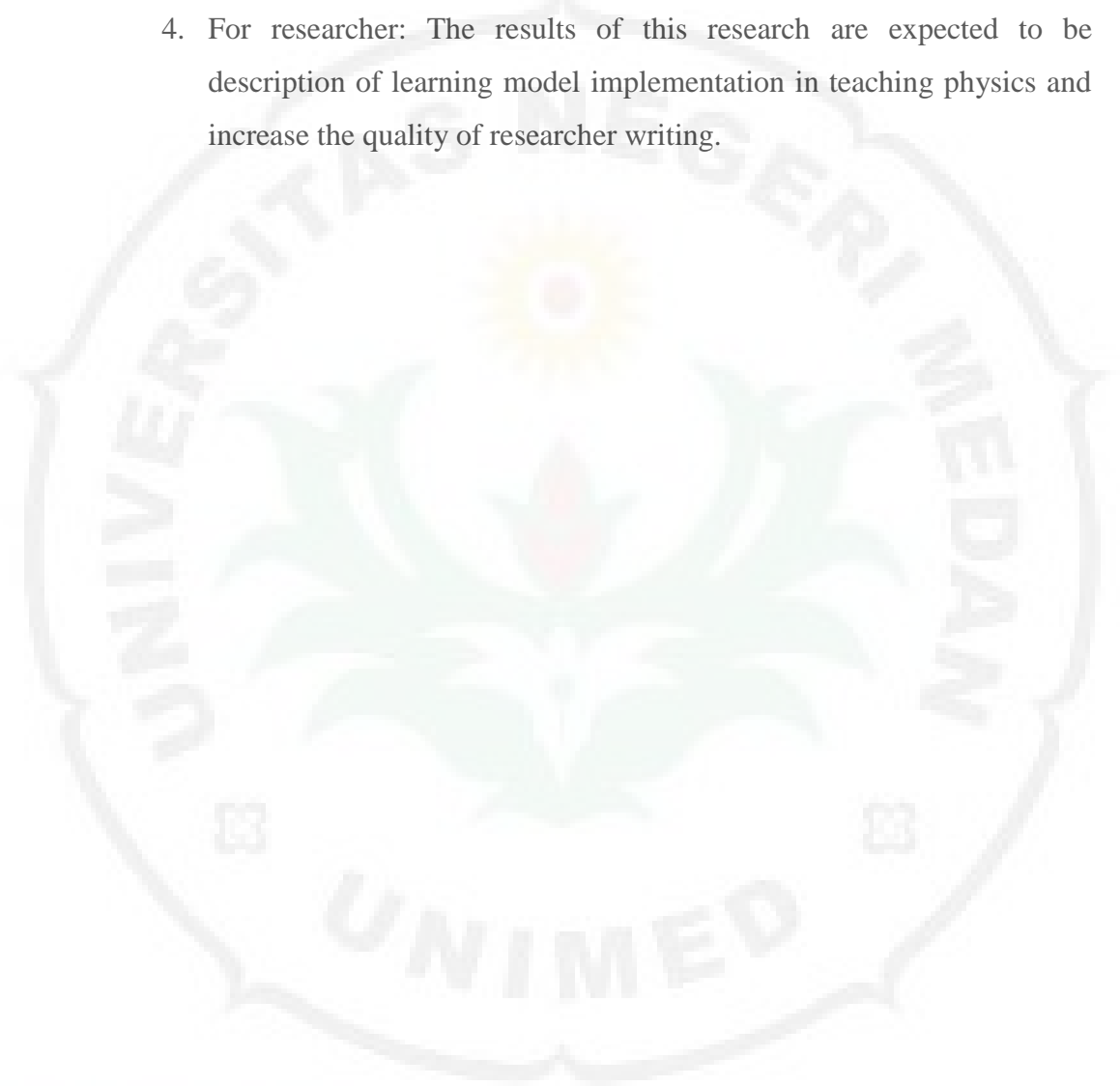
The goals of this research are:

1. Knowing the level of student's critical thinking ability between using Cooperative Learning Model Type TPS and conventional model in dynamic electricity topic at class X SMA Asy-Syafi'iyah International Medan.
2. Knowing the students activity using Cooperative Learning Model Type TPS in Dynamic Electricity topic at class X SMA Asy-Syafi'iyah International Medan.

1.6. Research Benefits

1. For School: Give good contribution to the quality of school such as student's critical thinking ability and increase teacher's professionalism.
2. For Teacher: The result of this research is expected to be input in expanding knowledge and insight about Cooperative Learning Model Type TPS in teaching science. Then, becoming one of alternative teaching models as effort to improve students.

3. For Student: The results of this research are expected to increase student's critical thinking ability in learning physics.
4. For researcher: The results of this research are expected to be description of learning model implementation in teaching physics and increase the quality of researcher writing.



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