

CHAPTER I INTRODUCTION

1.1. Background

Education is defined as a human being historically from generation to generation, who feel compelled to seek the truth or perfection of life (Salim in Cahyo, 2013: 17). Progress of a nation is influenced by the quality of education of the nation itself because higher education can produce qualified human resources. One of the problems faced in the world of education today is the problem of lack of good learning process. This phenomenon concurs with the opinion of Sanjaya (2006:1) states that: "One of the problems faced in the education process is weak learning". In the learning process, children less motivated to develop the ability to think. In the learning process of the students tend to be directed at this time to memorize the information, the students were forced to recall and hoard information without being required to understand the information, so students only accommodate what teachers tell without knowing the usefulness of the information in daily life.

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 help the student to mastery the physics concept and then effecting to student's learning outcomes.

Learning physics in schools in general are still using conventional learning methods because this method is easy to implement and quickly seen. In the learning process that is likely to be teacher centered domination master teacher in the classroom. Teacher writes on the blackboard peculiarities, and then, goes on solving the problems related to it. The students prepare for the exam by memorizing these concepts and formulas, and by solving the related problems. But, meanwhile, some of the students can not comprehend the concept, some others are not interested in the subject as they think that it is no useful to them, and the others are like spectators while few students come to the blackboard and

solve the problems. Most of the students do not participate actively lesson and can not comprehend the concept. They are forced to study the lessons for the sake of exams. Teacher only expects them to write, memorize and solve questions. In the end, physics lesson becomes a boring, meaningless, abstract, hard and problematic.

The low of education quality in Indonesia can be seen in the low of student's learning outcomes in some of lesson subject. Physics is one of the subject lesson that low student's learning outcomes. This fact is suit when the Researcher done in SMA N 5 Medan. The learning outcome of the physics subject is still low. The average of student's learning outcomes in semester I class X academic year 2016/2017 is 52.13. Whereas the Minimal Standard (KKM) is 77. Its mean that the average of student's learning outcomes is lower than Minimal Standard (KKM).

Base on the problem above there are many kind of model can be applied to improve the student's learning outcomes 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 be applied is the guided discovery learning model arise on the concept that student will be easier to find and understand physics concept by doing the discovery.

The principle of learning that apparent of guided discovery learning is the subject matter or materials to be delivered are not delivered in final form but through an active process. In this case, students as learners are encouraged to identify what they want to know and continues to find its own information and then organize or establish what students know and understand the student in a final form. Students are actively reconstruct his experience by connecting new knowledge with internal capital or cognitive structures that have been owned (Cahyo, 2013: 102).

There is the influence of guided discovery learning for student's creative thinking where this was proved by normalized gain test results showed an increase of 0.3 creative thinking skills in students who are taught using guided discovery,

while the average increase student learning outcomes are taught using discussion method by 0.09 (Rohimah, et al:2012). But, in this research, there is a weakness. In the group discussions there were some students who are silent and less participate actively in group discussions. Using the discovery learning method, which is one of the various teaching methods in which the students are active and are guided by the teacher, is considered to increase students' success and inquiry learning skills more than the traditional teaching methods (Balim : 2009).

To overcome the previous research weakness, weakness of previous studies is that not efficient use of time in the application process takes place of discovery learning. When the previously did not perform in accordance with the phase of discovery learning. Researcher will apply the guided discovery learning and trying to overcome the constraints faced by previous researchers by providing guidance and clarification in advance stages of guided discovery learning at the start of the meeting at the time of teaching and learning activities will be started. Researcher will manage time in accordance with the plans that have been made in the design of the learning program (Lesson Plan). Researcher will focus in the topic so the time efficiently so that goals can be achieved with good learning. Then, researcher will divide the group members when practicum not more than five persons, the division of tasks in order can proceed smoothly and all members of the group could be responsible for his work. In dividing the group members, researchers also will pay attention to the level of student's ability so it will not happen disproportionately grouping students.

Based on the description above, researchers interested in conducting research entitled **"The Effect of Guided Discovery Learning on Student's Learning Outcomes of Static Fluid in Class X second semester SMA N 10 Medan Academic Year 2016/2017."**

1.2. Problems Identification

Based on the background above, the problems identification of this research are as follows:

1. Low of student's learning outcome for physics.
2. Low of student's understanding the concept.
3. Learning model still not varied that used by teacher.
4. The dominance of the teacher in the learning process, so students do not have a chance to express their opinion.

1.3. Limitation Problem

In order to keep this research become more focused and directed, the researcher limit the problems as the following :

1. Using guided discovery learning in the experimental class and using conventional learning in the control class on the subject matter of static fluid in class X SMA Negeri 10 Medan.
2. Conducted to determine the influence of the Guided Discovery Learning on student learning outcomes.
3. Learning outcomes that will be examined only on cognitive aspect.

1.4. Problems Formulation

The problem formulation of this research are:

- How the student's learning outcomes after taught by Guided Discovery Learning?
- How the student's learning outcomes after taught by Conventional Learning?
- Is the effect of Guided Discovery Learning greatest than conventional learning on student's learning outcomes of Static Fluid in Class X SMA Negeri 10 Medan Academic Year 2016/2017?

1.5. Research Objectives

The research objective is as follows:

1. To know the student's learning outcomes in physics subject after taught by Guided Discovery Learning.
2. To know the student's learning outcomes in physics subject after taught by Conventional Learning.
3. To know the effect by Guided Discovery Learning that's greatest than conventional learning on student's learning outcomes of Static Fluid in Class X SMA Negeri 10 Medan Academic Year 2016/2017.

1.6. Research Benefits

The benefits of this research are:

1. As a ground for researcher in conducting research.
2. Adding the experience of researcher in improving student learning outcome based guided discovery learning.
3. Opening think conception of teachers in developing teaching and learning model one uses guided discovery learning.
4. As consideration for other researchers to examine the same issue in a different location and as an alternative information materials for physics teachers in selecting models or learning methods.