# CHAPTER I INTRODUCTION

# **1.1. Problem Background**

Education is a process to make students to able also adapt with its environment, and thus will lead to a change in student that allows it to function close in people's lives (Hamalik, 2008). Through this, education can produce a smart generations that can change in a nation into a better direction. Education lasts all human life, education in the development of nations is one of the important sectors. Thus, education occurs because of the learning process (Margono, 2007).

The learning process sees the meaning of every activity designed by the teacher to help someone (student) learn a new ability and value in a systematic process through design, implementation and evaluation. The role of teacher is not merely to provide information but also to direct and provide learning facilities so that the learning process is more adequate. Teachers as learning resources, determinants of learning methods and also learning progress assessors ask educators to make learning more effective and efficient to achieve learning goals (Sagala, 2014).

One of the difficulties of teacher in arranging appropriate learning at Dewantari (2015) was that 50% of teachers have difficulty choosing the appropriate learning method/model. The implementation of varied learning methods can affect the learning outcomes achieved by students. In learning activities, the use of methods is an important element to help students understand learning material. The use of appropriate methods and in accordance with the subject matter can improve student learning achievement (Andriani, 2015).

Based on the results of observation conducted in SMA Negeri 5 Medan, biology learning process performed still use lecture and discussion methods. This causes students feel bored, student interest are reduced, the low a comprehension of lesson so that learning Achievement. This evident through a minimum completeness criteria (KKM = 70) and students who achieve of KKM only 60%. The students were passive because learning centering only on the teacher, not the student.

Some models of learning which is seen in line with the principles of scientific approach, as follows (1) Problem Based Learning, (2) Project Based Learning, (3) Inquiry, (4) Group Investigation (Sulastri, 2014).

Group Investigation models in students' learning process can build cognitive thinking pattern in obtaining learning experiences, by looking for information from various sources, whether sources inside school or sources outside school, sources can be obtained from (books, institution, internet, etc.) which later on students are able to evaluate and synthesize information which is contributed by each group, so, they can produce a work group (Meilia and Disman, 2016). The students are taught to work together with their friends. They work together to achieve the goal or the success which has always been desired by them (Girsang, 2013).

Biology is branch of science consist of facts, concepts, and principles. Biology as science has the basic component that can't be separated from the product and process. Accordance with the nature of Biology as science, the biology of learning should develop thinking skills and practical skills (Prayitno, 2010). Both skills are needed to develop the student's learning experience.

Respiratory system is a topic on Biology related to daily life, that appropriate to be taught by using group investigation model because it is a learning model that focuses on observation. By using the Group investigation learning model, the students is expected to improve the understanding and implement the topic in their daily life.

Based on the problem that describe above, researchers feel to seek solutions in the learning involves students inactive. Which are one Method that based on the group process skills are Group Investigation model. Using Group Investigation model is expected to make active interaction between each student and students with teachers. So the researchers will entitled "The Effect Of Scientific Approach By Using *Group-Investigation* Model's In Respiratory System Topic Grade XI On Student Learning Achievement SMA Negeri 5 Medan Academic Year 2018/2019."

# **1.2. Problem identification**

Problem identification in this research are :

- 1. Student learning achievement still low.
- 2. Interaction between student are less in learning process.
- 3. The student are less interest in accepting new learning model.

#### **1.3. Research Scope**

The research problem definition is:

- 1. Learning in this research done in Group Investigation Method's as experiment class and Lecture Method learning as control class.
- Students Learning achievement on cognitive domain based on bloom taxonomy including: knowledge (c1), understanding (c2), application (c3), analysis (c4), evaluation (c5), and creation (c6), at Respiratory system topic.

## **1.4. Research Question**

Research question can be formulated as follow:

 Is there any effect on students learning Achievement using Group Investigation Model's at Respiratory system topic in grade XI SMA Negeri 5 Medan Academic Year 2018/2019?

#### 1.5. Research objective

The objective is to determine :

 The effect of Group Investigation Model's on students Learning Achievement at Respiratory system topic in grade XI SMA Negeri 5 Medan Academic Year 2018/2019.

## **1.6. Research Significance**

- For the Teacher, this research can help to increase class management in student grouping to make learning activity more active and easy for student to get of concept.
- For the student, this research will be make students more active in learning process and increase their ability to find out the material learning by themselves.
- 3. For the reader, as an input and motivation to carry out the profession as a teacher in the future.