

# CHAPTER I

## INTRODUCTION

### 1.1 Background

Learning is an effort that done by person to obtain a change in new behavior entirely, as a result of his own experience in interaction with the environment, behavior changes that occur in learning have characteristics: occurs consciously, continuous and functional, positive and active, not temporary, aimed and directed, and include all aspects of behavior (Slameto, 2003). While learning in Indonesian dictionary defined as a process, way, action that motivate human or living things to learn (Depdiknas, 2008). The learning objective in Indonesia suited to national education goals that stated in article 3 of law No. 20 of 2003 which develop the learners' potential in order to become a man that has faith and fear of Almighty God, noble character, healthy, knowledgeable, skilled, creative, independent, democratic and responsible citizen.

To achieve the goals of national education, the government has made various efforts to make improvement of curriculum started from curriculum 1947 till curriculum 2013. The principle of curriculum 2013 is not far different from the previous curriculum, because basically curriculum 2013 is the development of previous curriculum. The thing that makes different is the pressure point of learning and the range of material concerned to learners. As we known before that curriculum 2013 attempted to combine among ability, attitude, skills, knowledge.

Learning in curriculum 2013 uses scientific approach. Scientific approach is the approach used in learning by conducting scientific process. The learnt thing and obtained by student is conducted with sense and their own mind so they have experience directly within the process of gaining knowledge. Scientific approach is an approach of learning carried out through the process of observing, questioning, experimenting, associating, and communicating. This learning activity may form attitude, skills, knowledge of learner optimally. The fifth of scientific learning process are implemented at the time when enter the core activity of lesson (Fadlillah, 2014).

In the application of scientific approach need reliable teacher, which teacher demanded to be more creative in order that learner interested and active in the learning process. The learning that use scientific method, teacher is no more become learning center but centered on the students selves. It means that scientific approach is intended for providing comprehension to learner in knowing, understanding various material using scientific approach, that information may come from anywhere, anytime is not depend on direction information of teacher (Daryanto, 2014).

Scientific approach applied to all subjects include to biology subject. In curriculum 2013, biology subject aims order students have the ability to form positive attitude toward biology by recognizing the regularity and the beauty of nature as well as using greatness of God almighty, form scientific attitude namely honest, objective, resilient, critical, and able cooperate with others, developing experience to be able proposing and testing hypothesis through experiment orally or written, developing the ability of analysis thinking, inductive, and deductive, by using and applying the concept and biology principle to produce the simple technology work related to human need, improve awareness and participation in preserving the environment (Nunung, 2014).

The effort in creating the learning according to scientific approach is the task of an educator where in learning should build a sense of comfortable, attractive, and active. However in the learning application by using scientific, teacher still has obstacles. The result of research conducted by (Mei, 2014) stated the implementation of learning obstacles that experienced by teacher are difficulty in attracting student to ask, lack of time, the complexity of preparation, teacher are less able to manage the class, and many students late to collect the task. Correspondingly with the result of research conducted by (Surachman, 2014) to high school biology teacher said that the application of scientific approach in the class is not optimal, and there is no difference between the school status with five basics learning experience in scientific approach according to curriculum 2013.

According to Agnes as special staff of Education Minister and Culture in Supervision, Control and Development field is written in the article of [news.okezone.com](http://news.okezone.com) on October 16<sup>th</sup>, 2014 said that one different of curriculum

2013 with previous curriculum is its scientific approach. Still many teachers find it difficult to apply the approach in teaching. One of the steps of a scientific approach are observing, questioning, associating, experimenting and forming networks, which is often missed is the associating. Then the teacher still finds it difficult to make students active in learning, but teachers are required to be smart and become a facilitator in order that students ask, but not all teachers are able to implement it.

The result of initial observation conducted by the author to the biology teacher at MAN 1 Medan, known that MAN 1 Medan has implemented learning refers to curriculum 2013 since 2015 ago. Currently curriculum 2013 applied in class X and XI, until now have not been evaluated to the learning in class using scientific approach. This research will reveal The Implementation of Scientific Approach in Biology Subject in Grade X and XI at Madrasah Aliyah Negeri (MAN) 1 Medan Academic Year 2016/2017.

### **1.2 Problem Identification**

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

1. Curriculum 2013 uses scientific approach in learning.
2. Scientific approach is a new approach applied in biology learning at MAN 1 Medan.
3. The evaluation is not yet conducted as learning steps in biology subject with scientific approach rules.

### **1.3 Problem Scope**

In order to make this research is more focused, effective, efficient and able to be studied more. The things that scope this research as follows:

1. Class will be research are class X and XI at MAN 1 Medan Academic Year 2016/2017.
2. The implementation of scientific approach of biology learning activities in the class.
3. Class sample become subject of observation.

4. Reveal the biology learning activities that indicate the using of scientific approach.

#### **1.4 Research Question**

Based on the research background, problem identification, and problem scope above, it can be stated the research question as follows:

1. How the implementation of scientific approach in Biology subject in grade X and XI MAN 1 Medan?
2. How many kinds of dominant and non dominant scientific approach that implemented in learning Biology in X and XI grade MAN 1 Medan?

#### **1.5 Research Aim**

Based on the research scope and the research question above so, the objective of this research are:

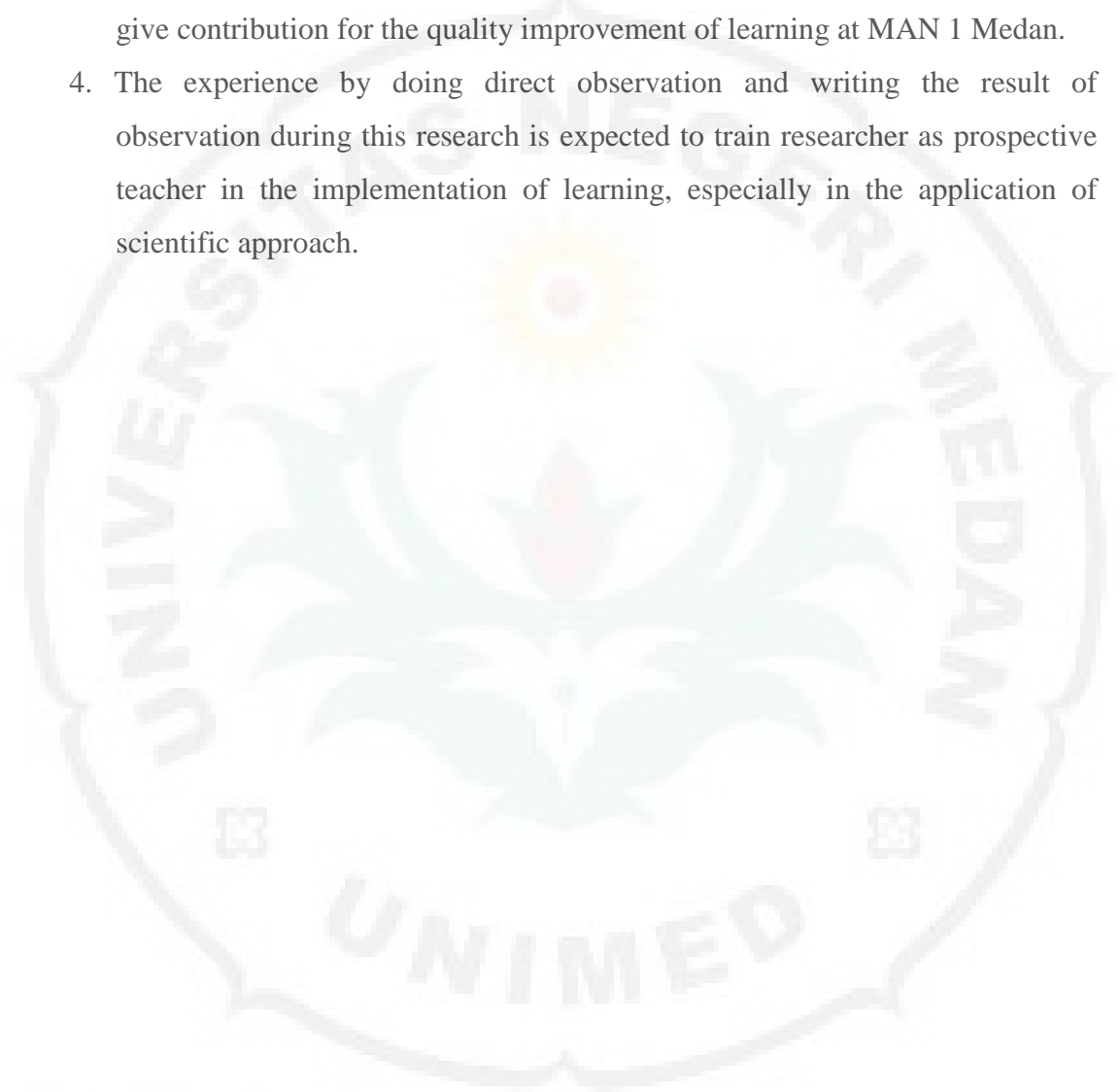
1. To describe the activities of learning biology done in class X and XI by using scientific approach at MAN 1 Medan
2. To obtain the empirical data about dominant and non dominant scientific approach that implemented in learning biology.

#### **1.6 Research Significant**

The result of this research is expected to give the contribution in education field especially to MAN 1 Medan. As special, the result is expected to provide benefits to various parties who use the research information as follows:

1. For education field, the information in this research will contribute information on learning activity using scientific approach that appear in learning biology in the class.
2. For high school biology teacher generally and MAN 1 Medan, the result of research provide the fact about learning activity (especially learning activity that using scientific approach) which appear when learning biology in the class.

3. Understanding about learning activity that use scientific approach can encourage innovation of biology learning especially at MAN 1 Medan, will give contribution for the quality improvement of learning at MAN 1 Medan.
4. The experience by doing direct observation and writing the result of observation during this research is expected to train researcher as prospective teacher in the implementation of learning, especially in the application of scientific approach.



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