CHAPTER I

INTRODUCTION

1.1 Problem Background

Learning as an enduring change in behavior, or in the capacity to behave in a given fashion, which results from practice or other forms of experience (Schunk, 2012). Actually there is no one definition of learning that is universally accepted by theorists, researchers, and practitioners. Best point of learning is changing from do not know become know about some materials (Shuell, 1986).

The quality of education that teachers provide to student is highly dependent upon what teachers do in the classroom. Thus, in preparing the students of today to become successful individuals of tomorrow, science and mathematics teachers need to ensure that their teaching is effective. Teachers should have the knowledge of how students learn science and mathematics and how best to teach. Changing the way we teach and what we teach in science and mathematics is a continuing professional concern. Efforts should be taken now to direct the presentation of science and mathematics lessons away from the traditional methods to a more student centered approach (Pavol, 2007).

Understanding of students' attitudes is important in supporting their achievement and interest toward a particular discipline. Students' attitudes toward science have been extensively studied (Dhindsa, 2003), but research was initially focused greatly on science in general (Dawson, 2000) and less attention was addressed to particular disciplines like biology, physics or chemistry (Salta &Tzougraki, 2004). This can partly camouflage students' attitudes because science is not viewed as homogeneous subject.

Attitude is a mental state of readiness that influences the individuals' response to everything it is related to. Schultz and Zelezny (2000) say that the attitude of concern for the environment originates from individual's concept of self and from the degree of perceiving himself as a fundamental part of natural environment. Behavior is what people do, if it is environmentally appropriate or not (Hernandez, 2000). Behavior is generally supported by the knowledge and

attitude, but the direct connection from knowledge to attitude and on to the behavior does not always exist (Monroe, 2000).

Biodiversity is an important issue with broad ramifications for the quality of human life and it is relative to the impact on agriculture, public health, ecological balance, and climate change (Peterson, 2003).The accelerating decline in biodiversity because of human activities is one of the most urgent environmental issues (Beckvich, 2011). To safeguard the richness of life forms, it is essential to raise public awareness about the need to preserve biodiversity (Kemeth, 2011). In recent years biodiversity has become an important focus of scientific research and political discussion (Dikmenli, 2010). It is also a relatively new issue in educational research and formal education. To promote biodiversity education, students' preconceptions, interest, and attitude need to be taken into account in the construction of curriculum (Gayford, 2000).The purpose of the study is to investigate undergraduate students' attitudes toward biodiversity.

The study of Biodiversity is also based on the environmental literacy framework (Roth, 1992). Environmental literacy refers to an individual's knowledge about and attitudes toward the environment and environmental issues; skills and motivation to work toward the resolution of environmental problems and active involvement in working toward the maintenance of dynamic equilibrium between the quality of life and quality of environment. Biodiversity is renewing the discourse on environmental issues by bringing together different groups in society to discuss the issues in relation to sustainability (Wilson, 1992).

Flash Eurobarometer reported that across the EU, slightly less than half of Europeans have heard of the term "biodiversity" and know what it means (44%). Three in ten have heard of it but don't know what it means (30%) and slightly more than a quarter have never heard of it (26%). Respondents are most likely to say that they have heard of the term "biodiversity" and know what it means in Austria, Germany (both 80%) and Bulgaria (53%). Europeans are fairly evenly split on how informed they are about biodiversity loss. Fewer than half of them feel informed (45%) and slightly more than half feel that they are not informed (54%). Education is strongly related to how informed respondents feel about the loss of biodiversity. More than half of Europeans who left education aged 20 or

older feel informed about the loss of biodiversity (53%), compared with four in ten of those who left education aged 16-19 (40%) and a third of those who left education aged 15 or younger (33%).

Biodiversity as the one of chapter on General Biology 1 subject matter which learn by students of Faculty Mathematic and Natural Science (FMIPA) State University of Medan. Where is including mathematic, physic, chemistry, and biology students. Because of it researcher want to know about knowledge and attitudes of students FMIPA about Biodiversity.

Based on the background described above, the researcher think that it is necessary to conduct the research about **"Analysis of Knowledge and Attitudes toward Biodiversity of Faculty Mathematics and Natural Sciences' Students State University of Medan".**

1.2 Problem Identification

Based on the background description above, researcher identified the research problem as follows:

1. Biodiversity as the one of chapter on General Biology 1 subject matter is learn by all students in Faculty Mathematic and Natural Sciences State University of Medan.
2. Students less understanding about Biodiversity.
3. Many studies stated that many students in a broad were unable to explain what Biodiversity mean.
4. Lecturer lackvariation way to learn about Biodiversity.

1.3 Problem Scooping

In order to obtain an appropriate discussion, the research has some limitation as follows:

1. Student knowledge and focuses on Biodiversity only in 2nd semester faculty mathematic and natural sciences students for education class State University of Medan 2016/2017.

2.   Student attitudes toward Biodiversity only in 2nd semester faculty mathematic and natural sciences students for education class State University of Medan 2016/2017.

3.   Data collecting tool of biodiversity just focuses on the cognitive aspect.

1.4 Research Question

There are some questions of this research as follows:

1.   How does the students' knowledge toward biodiversity of 2nd semester mathematic, physic, chemistry, and biology department State University of Medan?

2.   How does the students' attitude toward biodiversity of 2nd semester mathematic, physic, chemistry, and biology department State University of Medan?

1.5 Research Objective

This research is conducted to achieve some objectives as follows:

1.   To know the students knowledge toward biodiversity of 2nd semester mathematic, physic, chemistry, and biology department State University of Medan.

2.   To know the students attitude toward biodiversity of 2nd semester mathematic, physic, chemistry, and biology department State University of Medan.

1.6 Research Benefits

Considering about the research result and discussion, this research expected has significant beneficial both theoretical and practical. **Theoretically**, this research by hope has some significant benefit, as follows; as additional reference for biology lecturer about students' understanding and attitudes toward Biodiversity, as motivation to the biology lecturer to improve the way to teach Biodiversity, and being reference to conduct further research. Meanwhile, **practically** as reference for develop meaningful learning process focused on Biodiversity.