

# CHAPTER I

## INTRODUCTION

### 1.1 Problem Background

College is an educational institution that is expected to produce graduates with academic skills in the field of science that is occupied. Therefore, universities must always follow the development of science and technology is developing rapidly, to conduct refreshment and renewal in the activities and the learning process that goes on. The process of learning in higher education is not the same as learning in school. Learning in higher education is not just giving the material, strategic topics or concepts, but also must provide a learning experience that allows the development of independence of students to learn (Rahmi, 2014).

Winkel in Opit (2014) define learning as a mental activity that takes place in the interaction of individuals with learning resources, resulted in a number of changes where the changes include in knowledge, skill and attitudes. As Winkel said, Permendikbud number 81A 2013 also stated that the attitude, knowledge, and skill can develop in variety combination and pressure in the learning process, although knowledge always being the main motor to develop another ability. In learning, the student's learning outcome can be classified into three domains, namely cognitive, affective, and psychomotor. Related with the affective, Bloom in Septiani (2016) divided affective domain into receiving, responding, valuing, organization and, characterization.

Discussing about characterization, it is the higher affective domain which in this level, the students have value system that can keep the behavior till the time to create the life style. The result of this level include in personal emotional, and social character. According to Bahari (2010) the shaping of a person's character can be influenced by the level of education. In line with that statement Mardapi (2016) states that characters are always associated with character education that is often used to express how well a person is and developing of character qualities often seen as educational goals.

Related to characterization, attitudes come from feelings associated with a person's tendency to respond through things or objects. Attitudes are also an expression of the values or views of life that is owned by someone (Permendikbud number 81A 2013). In general, the object of attitude that needs to be assessed in the learning process according to Permendikbud number 81A in 2013 is the attitude toward the subject matter, the attitude towards the teacher, the attitude toward the learning process and the attitude related to the value or the norm (social attitude). The National Curriculum divides the competence of the attitude into two, namely the spiritual attitudes associated with the formation of learners who believe and piety, and social attitudes associated with the formation of learners who have noble character, independent, democratic, and responsible.

According to Stiggins (1994) students who have a positive attitude towards a lesson are expected to achieve optimal learning outcomes. Darmansyah (2014) says that the lack of attention to social attitudes creates problems in students' emotional intelligence. Students with difficulty in controlling emotions will find learning difficulties and social relationships. Therefore, the assessment of social attitudes becomes very important in supporting the success of learning in the cognitive and psychomotor aspects in learning both in school and college.

More than that, student in university is agent of change. They are expected to contribute greatly to the progress of the country's development. According to Bahari (2010) university students are regarded as groups that become sub important elements of people because it has great potential in creating a certain form of order. They are considered new agent that will replace the role of leaders in the future. As the agent of change, this potency is not regardless of the level of education. Some educational sociologists, such as Halsey and Psacharopoulos stated that education plays an important part in the determinants of status and income. Higher education will affect the perspective, insight and critical power that allow students to think about the future of the communities they live. Because of this high level of education, eventually, from among students will appear community leaders who will play a dominant role in the development of society. So, as the hope of the future nation in carrying the mandate of leadership and

agents of social change, student should be equipped with knowledge, experience and wisdom sufficient in responding social issues. So, it is necessary to do research related to the attitude of students in learning process using worksheet.

Student worksheet is learning tools in the form of sheets contain tasks that must be done by the students. This worksheet contains instructions to complete task that given by the lecturers to students (Murtafiah, 2014). In creating learning that can lead students to a good attitude in studying, an appropriate approach needs to be used as a guide. The approach used in learning is expected to lead students to always have a good attitude in the learning process, so the knowledge received not only can provide a memorable understanding but able to have a positive impact on social life behavior. Answer these, the national curriculum that emphasizes modern pedagogic dimension in learning, has demanded the students to use scientific learning process in conducting learning activities. In the scientific learning process, students are involved in activities to observe, ask, trying to gather information, reasoning and establish networking / communication (Sani, 2014).

General biology I is the general courses learnt by students of the Faculty Mathematics and Natural Science (FMIPA) in the first semester first year. As the compulsive subjects, General biology has 3 credits. Every student who has taken this course hopefully has basic skills in biological processes and ability to apply their knowledge in life. Therefore, students need to observe, question, reason, try and form a network for doing the learning on the subject general biology I, which the application can be obtained using the worksheet. One of the classes that take general biology course is bilingual chemistry 2016. In that class the organism and environment topic has done yet. So that doing the study in this class is suitable to do. Furthermore, there are not find a learning tools in the form of worksheet based on scientific approach are used in this course.

Based on the background outlined earlier, it is necessary to conduct the research with title **"The Application of Scientific Approach Student's Worksheet on Organism and Environment Topic Towards Student Learning**

## **Outcome in Bilingual Chemistry 2016 Class FMIPA UNIMED Academic Year of 2016/2017”.**

### **1.2 Problem Identification**

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

1. Have not found a learning tools in the form of worksheet based scientific approach are used in courses.
2. Have not found a study about the application of worksheet in bilingual class toward social attitude.

### **1.3 Problem scoping**

The scope of study is limited in:

1. The application student worksheets based on the scientific approach in organism and environment topic.
2. The learning outcome being observe are knowledge, social attitude (discipline, tolerance, teamwork, confident, courteous of student) and the learning process.
3. The subject matter is organism and environment topic.

### **1.4 Research Question**

The research questions in this study are:

1. How is the student learning achievement when application of worksheet based on scientific approach do?
2. How is the condition of student attitude in class when application of worksheet based on scientific approach do?
3. How is the condition of student learning process in class when application of worksheet based on scientific approach do?

### **1.5 Research Objective**

The research objective in this study are:

1. To know the student's learning achievement by using the worksheet.
2. To know the student's attitude in learning when application the worksheet.
3. To know the student's learning process when application the worksheet.

### 1.6 Research Significance

The results of this study are expected to give contribution in education, especially academicians Department of Biology, State University of Medan. Especially is expected to provide benefits to various sides which may use this study's information as follows:

1. For teachers in all subjects in general and especially all future teachers in biology subject, the results of this study provide consideration to create an operational and effective learning tools in achieving learning goals.
2. Experience in doing experiment and writing reports during the study are expected to train researchers as future teachers in the evaluation of learning.

