CHAPTER I
INTRODUCTION

1.1 Background

Learning is a system that is aimed to enhance the interactivity to learners. The learning process is a series of activities involving various components. One thing that needs to be understood, that in an understanding of the learning system, teachers will understand about the learning objectives or expected results.

Learning objectives is the main component and most important in a learning system, because it will bring the students to think in the learning process in the desired effect. Regarding learning component, Sanjaya (2009) declared "The learning process consists of several components that interact with each other and relate".

One component of the learning process is the media. Education media in general is a tool for teaching and learning process. In Syahfitri (2007) media can be used to stimulate the mind, attention, or learning skills and abilities of students, so it can encourage the learning process. But in reality, during the process of teaching, teachers are less-utilized of instructional media to support the learning process; therefore students' learning-outcome becomes low. Woolfolk in Dimyati (2013) said that Media intends to increase the learning activities, therefore increased the quality of learning outcomes.

Tendency in the learning process is still towards learning activities centered on the teacher, in which teachers are more likely to lecture therefore students are not actively engaged in the learning process . Teachers rarely use teaching media so that the learning process becomes passive and less useful. Therefore the old paradigm where teachers as a learning center should be abandoned and replaced by students as a learning center only and teachers as facilitators by providing the media.

Based on interview in SMAN 3 Medan, through interviews with teachers of biology (Dra Rahmi Siregar) at 27th March 2014, shows the percentage of students

in the school KKM is still low, especially in class pia 4, there are 70% or 25 from 32 students who do not pass and 50% or 18 from 32 students who find it difficult to remember and understand the biological materials. The difficulty is caused by the teacher basically explains monotonously without media combined with learning, so that students feel bored and nonchalant when the teacher explains in front of the class. In the end, the students have difficulty in remembering and understanding the subject matter.

Additionally, one of the alternatives in exploiting opportunities in the above is to assign tasks to students by using concept map. Theoretically, assigning tasks to students would have a positive impact to student learning outcomes. It can help that with a subject matter that has been given in class and then will sharpen students' understanding. Other than that giving the task works to increase the skills of the subject areas.

According Sofi (2004) the purpose of the assignment is to have better learning outcomes of students. And learning is not quite done only once, but needs practice and given tasks so subjects learned can be remembered more. And information provided to students is not easily forgotten then it takes a special effort from the teacher. Concept mapping has positive effect on various learning outcomes as well. Concept mapping, on the other hand, is a powerful learning strategy, which allows for depiction of both the interrelationship among the element of content and relationship between new and prior knowledge (Hulya, 2007).

There are many research on effectiviness of concept mapping, three of them as follows. Ruiz-Primo and Shavelson (1996) reported concept maps of advanced students majoring in biology were at a significantly higher level than those of non-majors, and concept maps could be used to distinguish experts from novices within a domain. Zelik et all (1997) recent representative study showed that used concept maps as an integral component for topic in a course in conceptual astronomy. As result, they found that students using concept maps displayed greater achievement on three conceptually based measure: a multiple-choice measure of misconceptions, a fill-in-blank concept map instrument, and a general measure of concept relatedness. In a parallel study, Cliburn (1990) showed that

the use of concept maps in combination with lecture in college biology class resulted in significantly better students learning and retention.

And According Karayuku (2010) showed that drawing concept map instruction was more effective than traditional instruction in improving physics achievement of the participating students. According to observations researchers Arikah (2008), so far, our education is still dominated by the view that knowledge is a device that must be memorized facts. And lectures became the primary choice in the learning process. In other words, students gain knowledge as told by his teacher not because found directly by students.

Learning this way will result in students being less able to understand what it means to learn, what the benefit of learning is and how to achieve it, so that students will feel difficult to solve a problem because it does not have the provision of sufficient knowledge.

To acquire learning outcomes that correspond to the learning objectives, this requires the ability to select appropriate learning method, because the method of learning is the most important thing that must be considered in a learning process. In this research, target to be achieved is the provision of a concept map tasks to the students, so that students are able to recall easily, and as evaluation for students.

Based on the background, researchers are interested in studying about differences in students' learning outcomes and retention who are assigned with concept map at the end of teaching process.

1.2 Problem Identification

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

1. The student learning outcome is low.
2. Model of school learning is teacher-centered.
3. Retention of students in biology is still low.
4. Less instructional media implemented in the school.

1.3 Study Scope

The problem in this study is limited as follows:

1. The model used in this study was a model of direct instruction using concept maps media.
2. Limited research subjects in class X the second semester of the academic year 2013/2014
3. Student learning outcomes was limited to the results of cognitive tests (C1, C2, C3, C4, C5, C6) and retention of students in the learning media concept maps in learning activities on material Mollusca.
4. School research for grade X SMAN 3 Medan

1.4 Problem Question

The problems with retriction on the formulation is this research are :

1. Is students' average learning outcomes who are assigned with concept map at the end of teaching process higher than who are not assigned with concept on mollusca topic for grade X SMAN 3 Medan?
2. Is students' retention who are assigned with concept map at the end of teaching process higher than who are not assigned with concept on mollusca topic for grade X SMAN 3 Medan?

1.5 Research Objectives

Based on the above problem formulation, the objective of this research is to compare :

1. The learning outcomes of student in a biology lesson who are assigned with concept map at the end of teaching process on mollusca topic for grade X SMAN 3 academic year 2013/2014.

2. Retention of student in a biology lesson who are assigned with concept map at the end of teaching process on mollusca topic for grade X SMAN 3 academic year 2013/2014.

1.6 Significances of Research

The expected benefit of research in this study are :

1. For Teachers, as an input learning media in learning biology.
2. For students, make students more active the learning process. And make students more easily grasp the subject matter.
3. For schools, deliver solutions and contribute to the school for improving the learning process with use learning media.