

CHAPTER I

INTRODUCTION

1.1. Background

Education is a conscious effort that is intentionally designed to achieve the goal set. Education aims to improve the quality of human resources. Based on the development of era in the world education continues changing significantly that many educators have to change the mindset from the conventional mindset to become more modern. Therefore, it is necessary to improve the quality of human resources through learning process at school. The assessment of learning process toward a more effective and efficient is inseparable from the role of the teacher as the spearhead of learning in school. Therefore, teacher should equip themselves with skills that are expected to assist in carrying out their duties. Since the teacher is one of the factors that influence the learning process, teacher must understand and develop method to improve students' motivation.

Biology will always be such an engaging subject, as most students are unreservedly challenged to involve as long as we provide them with such an appealing thread, especially for topics at Grade Eleven, because it contains anatomical and physiological theme which packed in such a dense materials. For example, Human Circulatory System topics filled with terminology in which students have a hard time identifying and keeping tracks of key terms. Teachers then make a map with unique picture and colorful lines where the main material as a central point. In this process and provide various effective techniques for science instruction that incorporate literacy skills (Buzan, 2008). Thus, there must be an improve type of various technique and the need of correction for teaching method used in learning, since a feature of interesting and challenging class is something that teacher should concern in. It is in accordance to the importance of learning, as students are expected to acquire something new after teaching and learning process, as outcomes. Hence, method or techniques to make students mastery is crucially important which will ease them to memorize.

Based on the preliminary survey analysis conducted in SMA Negeri 1 Berastagi found some facts in the biology learning process. These statements are proven by the score percentage for Biology learning result which is still low. Those problems occur at SMAN 1 Berastagi. The number of students that did not fulfill the score criteria of minimum completeness (KKM) 75 on semester final exam is 46% in grade eleventh (teacher interview, 2012).

There are many factors cause low achievements of biological study. The inability of students to master the material is one of the reasons. One of the most wide-ranging biology materials on high school is about the human circulatory system. There are complex content. Therefore it is necessary to apply the variation of model or the methods.

One activity that cannot be separated from teaching and learning Biology is making note. Without recording and repeating it, most students could only remember a part of material that they read or what they heard (De Porter and Henarcki, 2005). However, note means is an effective censure for an affective record keeping can save time by helping students to store the information easily and recall it when needed. Actually the ability of in organizing the information in order to record more likely to stick in memory could happened if the note is made by creative thought as well as increase the students interest while reading it. So it is not necessarily write all the sentences into records, but it can be in the form of key points or image.

Due the problem of Learning Outcomes and effective technique to overcome such problem, we can bring the idea of learning technique that can provide both anxiety and achievement for biology topics. The solution is using Mind Map introduced by Tony Buzan (2003). So, learning Biology will be more memorable and fun with interesting notes. This concept is based on the way our brains work in storing information. The results show that our brain does not store information in the boxes are lined up neatly of our nerve cells, but cells collected at the nerve branches in which, when seen at a glance will looks like tree branches. From this fact, it is inferred that if we store information such as how the

brain works, the information will be stored better in the brain and of course the learning process will be easier in the end.

From background of study above , the writer will conduct an experiment to see the effect of Mind Map on students' learning outcomes on Human Circulatory System Grade Eleven Science Program at SMA Negeri 1 Berastagi, Academic year 2012/2013.

1.2. Problem Identification

Based on the elaboration of the background of the study above, the problems of study are formulated as follow:

- a. Students' academic outcome is still low noticed by number of students that did not fulfill the score criteria of minimum completeness 75 on semester final exam is 46%.
- b. Learning Strategy used by teacher is still less interest.
- c. Human Circulatory System topics consist of biological text with long and complex sentences that are laden with facts. It also filled with terminology in which students have a hard time identifying and keeping tracks of key terms.

1.3. Research Scope

Due to time and resource limitation, this study will be focused on:

1. Technique Mind Map is applied in the experimental class.
2. The material taught in this study is the subject matter human circulatory system.
3. The subject of this study is the grade eleven science students the first semester of High School N 1 Berastagi Academic Year 2012/2013.

1.4. Research Question

Is students' learning outcome who learn using Mind Map technique higher than those without?

1.5. Objectives

Based on the formulation of the problem is presented, this study aims to find out the students learning outcome who were taught using the Note of Technique Mind Map and Traditional Note on the subject matter of human circulatory system science class XI SMA N 1 Berastagi academic year 2012/2013.

1.6. Significance of the Study

The research findings will be important to:

1. For the teacher, as an alternative learning strategies to improve student biology learning outcome.
2. For students, the student learning experience that can improve student learning outcome.
3. For the researcher/teacher candidates, as preparatory materials themselves become teachers who can improve student learning outcome by making students education as subjects and as an input for other researchers to observe the technique Mind Map in school.

