

CHAPTER I INTRODUCTION

1.1. The Background of Research

Teaching and learning process is the core of the formal education process in schools. In teaching and learning, there is an interaction or reciprocal relationship between students and teachers, where students receive learning materials that are taught by teachers. Teachers teach by stimulating, guiding the students and directing student, teaching materials that are suitable with the purpose.

The purpose of teaching in general is for teaching materials that is delivered fully and mastered by all students. This mastery can be addressed from the results of learning or learning achievement obtained by students. The achievement of a goal of learning is strongly influenced by the teaching methods that employed by teachers.

In learning activities always found the existence of students who experience difficulty in achieve mastery learning about materials that have been determined. Generally these difficulties are difficult to understand the learning materials, as well as the difficulty in solving the exercises and test questions. In particular, student's difficulties can not be mastered basic competencies of the subject matters. One obstacle in learning mastery is still prevalent because of the learning approach was dominated by the role of the teacher (teacher centered). Based on interview with teacher, teacher centered approach always do in learning activity in the class. Teacher puts students as an object and not as subject students (Anitarera, 2009).

If the learning activity in the school has relied on teacher centered, so learning activities occurs only in one direction, namely teacher to student. This phenomenon was resulted the gap between teachers and students, so that when students encounter a problem in the concept of subject matter, the students do not want to ask the teacher, as a result they are unable to resolve the problem. This is

a barrier in the mastery of subject matter concepts. If the concept of the lesson can not be controlled, it will affect the students' learning outcomes.

Based on this phenomenon, teacher centered approach needs to be converted into a student centered. This is consistent with the statement by Redjeki (2001) which states that there are four pillars of education declared by UNESCO. These four pillars are empowered students must be willing and able to do in order to enrich their learning experience (learning to do), are able to build knowledge of the world around it (learning to know), to build the knowledge and establish identity (learning to be), as well as interact with groups of individuals who varied and spawned in positive attitudes (learning to live together). To solve the problem, then developed a way to make students active in learning by cooperating among student is peer tutoring.

The selection of peer tutoring learning as a learning strategy was expected to help students in understanding the subject matter, can instruct students to improve achievement, motivation, creativity, imaginative, and the ethos of science and the development potential of children who have not been fully implemented. Peer tutor technique is learning strategy with a number of students as members of a small group in different ability levels.

In the study in classroom, each student must work together and help each other in understanding the subject matter. Therefore at peer tutoring strategy, the learning is not yet finished when one of the student in the group has not to master the subject matter. Sunarto (2008) said that peer tutoring is one of the learning strategies to help the student needs to support the study. This is cooperative approach rather than competitive. Mixed ability groupings are essential. In the classroom situation the more advanced child can act as tutor and since he/she is of similar age they should have a good understanding of the tutees situation and should also be working in the same ZPD. Mutual respect and understanding fostered among students working together. Students that involved peer tutors will feel proud of his role and also learn from the experience. This condition helps reinforce what they have learned and acquired over the responsibilities assigned to him. When they learned with peer tutors, students also develop a better ability to

listen, concentrate, and understand what is learned in a meaningful way. Explanation through peer tutoring to allow his more successful than the teacher. Students are look at the problem in a different way than adults and they use language that is more familiar.

In this study, an attempt is being used peer tutoring techniques. Peer tutoring will benefit both tutors or taught. According Khusna (2009) peer tutoring will encourage and move of they have learned in addition to explain the material to other students. In addition, peer tutoring can also enhance cooperation and social skills on students in learning activities and make tutors become berate the social bond (Lidren, 1991). This technique is also an effective way to improve academic achievement for the tutor and tutee. Helpful to solve the problem and is also effective in helping to develop creativity, experimentation, problem-solving skills and learn the concept of depth (Lake, 1999).

Previous research on peer tutoring conducted by Setyaningsih (2007) in the form of action research on high school students about the effectiveness of the use of models of peer tutoring on student learning outcomes in the concept of food digestion. The method used in the research is to divide the tutors in each group, the tutor explains the different materials from each group. After completion of explaining the material in a group, tutors are to explain the same material in different groups. From the results of the research show that there is an increase in student learning outcomes after three cycles of learning. The literature study can reveal how to improve student learning by learning outcomes of peer tutors that each group studied different material and only one class did observed.

Further, in the research of Amprasto (2003) observe on plant ecology laboratory study using a mini research by utilizing peer tutors. Prior to this research, first determine which students will be a peer tutor and was given a briefing on the task and role. Practical topics designed so that the student becomes a little research and implemented on the laboratory experiment results discussed in the group and then proceed to class discussions. At the end of the discussion, the lecturer gives reinforcement or alignment misconceptions. The result obtained,

can conclude that there are improvements to the learning outcomes of students who act as tutee.

Learning peer tutoring is not widely done in high school, especially in the subjects of biology. Some subjects did use peer tutoring applicable use numbers processing such as physics, chemistry, and mathematics. In fact, the subject matter contained biological concepts related to the branch of chemistry and mathematics (Setiawati, 2007).

This research used peer tutoring method, performed on high school students with the same material in each group, namely ecosystem. Data retrieval is done by comparing the results learning outcome of the experimental group and the control group as well as the score of pre test and post test.

Based on this background, will be done research on "**The Effect Peer Tutoring Technique on Student Learning Outcomes in Ecosystem Topics on Class X Senior High School 1 Lubuk Pakam Academic Year 2013/2014** "

1.2. The Identification of Problem

Based on the description of the problem background above, it can be identified several issues as follows:

1. The appropriate of learning strategies is lesson cannot suitable with the needs of students.
2. The learning method that is use dominated by teacher center
3. This method use peer tutoring technique in teaching biology has not been implemented.

1.3. The Limitation of Problem

The problem in this study is limited to:

1. Material concept that used is ecosystem topic in class x
2. Learning outcome that measured include cognitive aspect based on taxonomy bloom have been revisited and will measure by objective test
3. Subject of research is student of class x senior high school 1 lubuk pakam, in second semester that choose two from five classes.

1.4. Research Question

As for the formulation of the problem in this study:

1. How the significant effect of peer tutoring technique on student learning outcome in ecosystem topic on class x SMA 1 Lubuk pakam ?

1.5. The Objectives of Research

The Aim of this research is as follows:

1. To know the significant effect of peer tutoring technique on student learning outcome in ecosystem topic.

1.6. The significance of Research

This research is expected to provide the following benefits:

1. For student to increase social interaction between them in classroom at peer tutoring done and after peer tutoring learning finished, and increase learning process to can achieve mastery learning.
2. For teacher, this research can help to increase class management in student grouping to make learning activity more active and easy to student get mastery of concept in subject matters.
3. As an addition to information and literature in education, especially regarding learning with peer tutoring techniques.

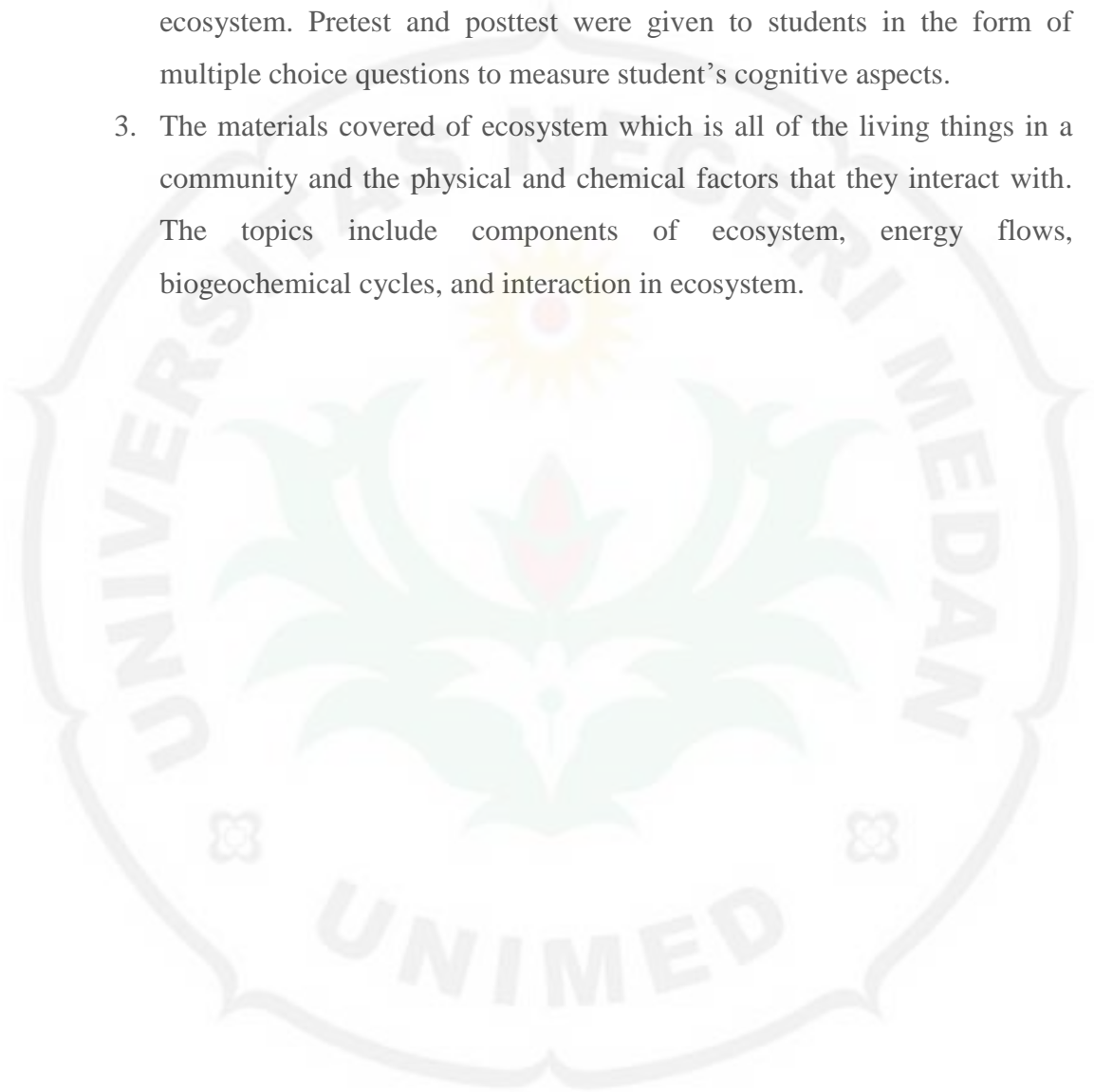
1.7. Operational Definition

Operational definition in this research as follows;

1. Peer tutoring technique is waged efforts on student learning outcomes in ecosystem material by classmates who act as tutors. Peer tutoring is done by dividing the class into eight groups of four people, one of the students in the group to act as tutors who had been given a briefing materials ecosystem.
2. Learning outcomes in this study is the value achieved students from the pretest and posttest after learning in peer tutoring on the material

ecosystem. Pretest and posttest were given to students in the form of multiple choice questions to measure student's cognitive aspects.

3. The materials covered of ecosystem which is all of the living things in a community and the physical and chemical factors that they interact with. The topics include components of ecosystem, energy flows, biogeochemical cycles, and interaction in ecosystem.



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