

CHAPTER I

INTRODUCTION

1.1. Background

Learning is the most important activity in the overall educational process at school. It means the success of educational goals is depends on how learning process take place effectively. Learning is an activity with awareness looking for purpose. The purpose of learning is the change in the individual in cognitive, affective and psychomotor aspect.

In achieving the aims of learning, educators need to develop good quality teaching and learning process to make students interest participating the lesson. According to KTSP (standard educational curricula), the learning process is establish student as the active learner. Yet, the issues commonly have often been said inhibiting the process of education. There is the atmosphere that tends to monotony in class, which less involving student activity. It creates the circumstance of student's low motivation.

Some sources represent that the learning process is still conducted conventionally, that is lecturing method. This view of method has many problems. The teacher acts as the only source of information. In fact, the role of teacher is not just providing information, but also directing and facilitating the learning process (Syamsudin, 2007).

Most students are not interested in being class participants in lecturing method. They fail to see how the knowledge will be useful to them in the future. They therefore lack motivation for this kind of methods. Most important, this kind of teaching misses a tremendous opportunity to give all students the problem-solving, communication, and thinking skills. The students so often seem bored and disengaged from learning (National Research Council (NRC), 2000).

Meaningful learning is inseparable due to solving the problem. Greenwalld (2000) stated that learning science with any strategy must emphasize the student on criticism, problem solving, and critical thinking. It will encourage students to

do exploration, finding meaningful concept, and developed a scientific skills, includes efforts to build curiosity, open-minded, learn from experiences.

Biology is basically the subjects that tend to be a mistaken understanding of the concept and became memorizing lessons. Most students can memorize the material being taught well, but do not understand the intent contained in it. In addition, students are not able to relate what they learn with how that knowledge will be used.

Interviewed has been done with biology teacher of XI IPA SMA Negeri 1 Tebing Tinggi and it was suggested that human respiratory system is the less focus topic to be discussed. Teacher felt the others topic is more complicated so it need more attention. Teachers thought human respiratory system topic is easy to understand, but the reality is different. The students show that they have problem of memorizing organs of human respiratory system, its anatomical and physiological structure, also the mechanism occurs in it (Nasution, 2012).

Lecturing method is used to transmit the information makes the student difficult to understand the concept. Teachers provide the students with sets of science facts and with technical words to describe the facts. In the worst case, this type of science teaching assumes that education consists of filling a student's head with vocabulary words (NRC, 2000).

The observation shown the students' learning outcomes in biology subject were unachieved learning completion (KKM). The average score for pass the standard is 75. Observation also shows the student's motivation is relatively low. It was shown by the interactions and questions are rarely asked in class. This may relate to the condition that biology contains lots of explanations and memorizations.

To solve these issues, educators should choose teaching and learning methods that excite and motivate students to actively participate in the learning process. Therefore, it will improve student's motivation and learning outcomes.

Inquiry learning is an approach which basically builds from constructivist theory by Dewey, Schwab, and Bruner. They emphasize that learning is not only

hear and see, but also doing the activity (NRC, 2000). This approach gives the teacher the opportunity to help students learn the content and course concept by having them explore a question and develop and research a hypothesis. Thus, giving students more opportunity to reflect on their own learning, gain a deeper understanding of the course concepts in an integrated fashion, and become better critical thinkers (Lane, 2007). Schrenker reported that inquiry training resulted in increased understanding of science, greater productivity in critical thinking, and skills for obtaining and analyzing information (Joyce, 2003).

Guided inquiry is planned, targeted, supervised intervention throughout the inquiry process. Guided Inquiry enables students to learn how to learn by becoming aware of their learning process. Guidance is provided at critical intervention points to teach strategies for learning from a variety of sources of information. The students are prepared to apply their learning process for understanding and creating in an abundance of information in their daily life (Kulthau, 2010).

According to the research conducted by Makrina (2007), guided inquiry had significant effect in increasing student learning outcomes. The implementation of guided inquiry increases students' learning outcomes 29.81% than the conventional. The implementation of guided inquiry gives the chance for student to develop their science processing skill and improve student's learning outcomes. Other researches also show significant effect of guided inquiry in improve student motivation. (Diah, 2012; Triana, (2010); and Yohana, (2009).

The implementation of guided inquiry reveals higher students' enthusiasm and involvement in learning process. There is the increase of students' interest to continue the activities, accustomed to express opinions, criticism, able to explain and satisfy with their own curiosity (Anggreini, 2009).

Based on the problem above the Classroom Action Research was done to solve the problem exists at class XI IPA 6 by Implemented Guided Inquiry to Improve Student's Motivation and Learning Outcomes of Human Respiratory System for 11th Grade Student SMA Negeri 1 Tebing Tinggi Academic year 2011/2012.

1.2. Identification of Problem

According to the background, the identified problems are:

1. Students learning outcomes in Biology subject is unachieved minimal completion (KKM).
2. Student's motivation in learning Biology is relatively low.
3. The lecturing-method is commonly used in learning process.
4. Biology contains lots of explanations and memorizations.
5. Activeness of student in learning process is still low.

1.3. Problem Scope

There are many factors that affect the student's motivation and learning outcomes at school but this research focuses on the Implementation of Guided inquiry to Improve Student's Motivation and Learning Outcomes of Human Respiratory System for 11th Grade Student of SMA Negeri 1 Tebing Tinggi Academic Year 2011/2012.

1.4. Research Question

In accordance with the issues that have been stated, then the problem can be formulated as follow:

1. How does the implementation of guided inquiry on human respiratory system for 11th grade student of SMA Negeri 1 Tebing Tinggi academic year 2011/2012?
2. Is there any improvement of student's motivation by implementing guided inquiry on human respiratory system for 11th grade student SMA Negeri 1 Tebing Tinggi academic year 2011/2012?
3. Is there any improvement of student's learning outcomes by implementing guided inquiry on human respiratory system for 11th grade student SMA Negeri 1 Tebing Tinggi academic year 2011/2012?
4. Is there any improvement of student's activity by implementing guided inquiry on human respiratory system for 11th grade student SMA Negeri 1 Tebing Tinggi academic year 2011/2012?

1.5. Objectives

This study was aimed to:

1. To know the implementation of guided inquiry on human respiratory system for 11th grade student SMA Negeri 1 Tebing Tinggi Academic Year 2011/2012.
2. To know the improvement of student's motivation by implementing guided inquiry on human respiratory system for 11th grade student SMA Negeri 1 Tebing Tinggi Academic Year 2011/2012.
3. To know the improvement of student's learning outcomes by implementing guided inquiry on human respiratory system for 11th grade student SMA Negeri 1 Tebing Tinggi Academic Year 2011/2012.
4. To know the improvement of student's activity by implementing guided inquiry on human respiratory system for 11th grade student SMA Negeri 1 Tebing Tinggi Academic Year 2011/2012.

1.6. Research Significances

1.6.1. Theoretical Significance

- a. Providing information about the application of guided inquiry to improve student learning outcomes and student motivation.
- b. Encouraging teacher's initiatives to develop alternative strategies to teach biology.
- c. As references for other researchers who want to continue and develop this research.

1.6.2. Practical Significance

- a. For schools, it can be used as a strategy in involving student being active learner by applies guided inquiry.
- b. For biology teachers, it can be used as a reference in selection of good learning strategies in order to make the learning process will be interesting and can involve students in learning process.

1.7. Operational Definition

Guided inquiry is the constructivist learning models which preserve guidance and intervention of teacher in inquiry process to make student learn the content and course concept by having them explores a question and develop and research a hypothesis. In this research, the guided inquiry was implemented in Human Respiratory System, and has been observed by using observation sheet.

Student motivation is the level of student enjoyment to explore new information in learning. It was assessed by administered questionnaire.

Learning outcomes is the thing that could be seen in two site, student and teacher. By student site, learning outcomes is the better development of student mental in cognitive, affective, and psychomotor domain after following learning process. From teacher site, learning outcomes is the moment when the material is had transferred well. In this research, it was assessed by pre test and post test.

Human Respiratory System is the sub topic in Respiratory system which learn about the mechanism of the gas exchange (O_2 and CO_2) in human body including the organs that compose the system, volume of lung, mechanism of gas exchange, also the disorder/disease occur in it.



