

CHAPTER I

INTRODUCTION

1.1. Background of Study

Therefore, biological phenomena can be solved by students' critical thinking, enabling students to find facts, build concepts and theories, and solve problems they face in life. One of the biology lessons that discusses environmental pollution material is very closely related to students' daily lives and encourages students to learn by looking at environmental problems (widyaningrum, *et.al.*, 2013). The inaccuracy of the learning model used has implications for learning environmental pollution which should be contextual, less meaningful, resulting in students' perspectives on thinking and involvement with the environment becoming less than optimal.

Critical thinking ability is essentially a characteristic of all students. Students' thinking skills are characterized by the ability to identify, find similarities and differences, distinguish and classify objects or phenomena, organize objects and information, examine information in detail, recognize views or opinions, recognize the quality or value of something to evaluate, draw conclusion (Naibaho, 2014).

Based on the results of direct observations made in class X MIA SMA Negeri 1 Medan, it was found that during the learning process (PBM) there were very few students who asked questions and the teacher's questions answered or responded to comments from friends, learning is oriented towards mastery of material or memory, the implementation of biology learning is not oriented to foster students' critical thinking, students do not voice alternative correct answers (new ideas). This can be seen by looking at the KKM (minimum completeness criteria), especially for biology class X MIA, which is 75. Meanwhile, the average student score is only 70.

In addition to the cognitive problems that students are currently experiencing, there are also phenomena that are happening at the moment which are a hot topic of discussion, such as: global warming, pollution, garbage and so

on. The consequences are extreme changes in temperature and weather, for example in September-December when it should rain, there will be a dry season or an irregular change of seasons, the ice in the North Pole will melt and the ozone layer will be damaged. Environmental damage is caused by humans themselves.

A high level of environmental knowledge facilitates the assimilation of information and careful rational thinking in implementing an environmentally conscious attitude. If one lacks understanding of the environment, one might also treat the environment with less care. The formation of human behavior begins with knowledge, which then creates an internal response in the form of an attitude and is expressed through action or behavior. A positive attitude leads to healthy living behavior because a person easily absorbs information, suggestions and advice and knows the good, bad effects and benefits of this behavior.

The solution to these problems is to use a good learning model that is effective depending on the material and optimizes student skills. Various learning models can be adopted for learning the 2013 curriculum, for example the Group Investigation (GI) learning model.

According to Junaidi and Taufiq (2021) show that the Group Investigation learning model can improve students' critical thinking skills, this is shown by the difference in the results. Based on the results of research conducted by Junaidi and Taufiq, the Group Investigation (GI) learning model can be used as a reference learning model used to improve critical thinking skills.

Based on the explanation above, seeing the influence of the group type cooperative learning model and also the attitude of a researcher is a measure of how a person works. An environmentally conscious attitude is an attitude and action aimed at avoiding ecological damage, so it is very important to instill an ecological attitude. Environmental problems that are left alone without countermeasures are fatal to all living things. Therefore, returning to other people's self-awareness, that a careful attitude towards the environment is very important. Through the learning process it can be seen an increase in critical thinking and students' caring attitude towards the environment. Based on above problem, the research is the title:" The Influence Of Group Investigation Model

On Students' Critical Thinking Ability And Environmental Care Attitude At Environmental Changes Topic In Class X Sma Negeri 1 Medan " done.

1.2. Problem Identification

Based on the background of the problems above, the identification of problems in this research are:

1. Students' critical thinking skills are still relatively low, marked by the presence of student scores that are still below the Minimum Completeness Criteria (KKM).
2. The method used by teachers in teaching biology subjects still uses the lecture method, causing students to be less motivated to be active in the teaching and learning process.
3. Learning is oriented towards mastery of the material and memory.
4. The implementation of biology learning has not been oriented towards increasing students' critical thinking.
5. Students are less involved in solving existing problems in learning.
6. Lack of environmental care attitude of students towards the surrounding environment.

1.3. Scope of Study

Based on the description of the background of the problem above, the scope of this study is to measure students' critical thinking skills and environmental care attitudes of students who are taught using the Group Investigation learning model on environmental change.

1.4. Scope of Problem

Given the breadth of the problems involved in this research, it is not possible to carry out research as a whole and so that this research is more focused, the problems studied are limited to:

1. The learning model in this study is the investigative group type cooperative learning model (GI).

2. Students' critical thinking skills and environmental care attitudes in the learning process of environmental changes using the group investigation method in class X IPA SMA Negeri 1 Medan.
3. Subjects in the study were limited to students of class X8 and X9 semester II who had never studied environmental changes at SMA Negeri 1 Medan.
4. The attitude of caring for the environment of students is measured by a questionnaire compiled based on indicators of caring for the environment.

1.5. Research Questions

Based on the limitations of the problem above, the formulation of the problem in this study is:

1. What is the influence of the Group Investigation (GI) learning model on students' critical thinking abilities in class X SMA Negeri 1 Medan?
2. What is the influence of the Investigation Group (GI) learning model on students' environmental care attitudes in class X SMA Negeri 1 Medan?
3. Is there a significant difference in the students' critical thinking abilities in class X SMA Negeri 1 Medan after the application of the group investigation (GI) learning model?
4. Is there a significant difference in the attitude of caring for the environment in class X SMA Negeri 1 Medan after the application of the group investigation (GI) learning model?

1.6. Study Objectives

In accordance with the problems that have been stated above, the objectives of this study are:

1. To determine the influence of the investigative group learning model (GI) on students' critical thinking abilities in class X IPA SMA Negeri Medan.
2. To determine the influence of the investigative group learning model (GI) on environmental care attitudes in class X SMA Negeri 1 Medan.
3. To determine the significant differences in critical thinking abilities of class X SMA Negeri 1 Medan students after implementing the group investigation (GI) learning model.

4. To determine the significant differences in environmental care attitudes among class X students of SMA Negeri 1 Medan after implementing the group investigation (GI) learning model.

1.7. Research Purpose

The benefits to be expected from this research are:

1. For Students

This research is expected to provide benefits for students to improve students' critical thinking skills through learning experiences from the Group Investigation learning model and caring attitudes towards the environment in learning environmental change biology.

2. For Teachers

This research is expected to provide innovation and reference for teachers in using and implementing appropriate learning models in improving students' thinking skills and environmental care attitudes.

3. For Researchers

This research is expected to be a forum for expressing ideas and ideas about improving the quality of education and solving problems that occur in schools as prospective teachers and providing knowledge and experience to be used as provisions in entering the world of work as educators.