

CHAPTER I

INTRODUCTION

1.1 Research Background

Learning is a process of change in the human personality and is manifested in the form of increasing the quality and quantity of behavior such as increasing skills, knowledge, attitudes, habits, understanding, skills, thinking power and other abilities. Every individual is not the same. This individual difference is caused by student behavior. According to Arifin (2009), education is an effort made to develop individual abilities and personalities through the processes or activities (teaching, guidance, or training) as well as individual interactions with their environment to achieve complete business.

In the learning process, the teacher provides learning material to students so that it can be understood. The purpose of the learning process is to be able to know and understand the meaning of data, information and knowledge obtained from reliable sources. Student learning results show the success and the difficulty of students in mastering the material. Shown by the value of learning results that are below or above the KBM (Djamarah, 2011).

The learning process is not always successful, often failures and difficulties arise in achieving the ultimate goal of learning. Namely the quality and ability of students. In the learning process at school, students often find learning difficulties. Learning difficulties are a condition where students do not learn naturally, due to threats, obstacles, or disruptions in learning. Student learning difficulties can be seen from the learning results they get. Learning results are obtained through educational assessments through end-of-semester tests. This test is an activity carried out by educators to measure the achievement of student competencies. Students' completeness in achieving these competencies can be seen through the KBM (Syah, 2010).

Syah (2012) argues that learning difficulties are caused by factors that come from within the student (internal) and from outside the student (external).. Internal factors that can cause learning difficulties include health factors,

motivation, intelligence, talents, interests, mental health, and special types of learning. Meanwhile, external factors include the influence of the family, school and community environment.

The source of learning difficulties in biology is some concept that are too abstract and a large number of foreign / Latin words, teacher-centered learning strategies, lack of examples and the relationship between what is taught in class and everyday life which has a negative impact and motivation to learn. Apart from students, facilities such as laboratories that do not support learning activities, and learning materials such as handbooks and inadequate learning media (Tekkaya *et al*, 2001; Cimer, 2012).

Biology subjects have the characteristics mentioned above which are a challenge for students in terms of learning and also for teachers in terms of the teaching process. It is not uncommon for these distinctive biological characteristics make students experience difficulties in understanding biology subjects (Hasibuan, 2013).

The subject matter in this study was selected from the results of interviews and surveys with the help of google form which was distributed through the WhatsApp application to 43 students of SMA Negeri 1 Berastagi who were randomly distributed from 5 class X MIPA. From the survey results, it was found that several subjects that were considered difficult for students where Virus material 44.18% (19 students), material on kingdom monera, and kingdom fungi. According to the results of the survey with students, this virus material was difficult because they did not understand material such as virus classification, virus body structure, and the many types of viruses being studied.

Virus is one of the materials taught in the field of biology subjects. Many students have difficulty understanding the concept of viral material. Virus material is very often released during exams, be it tests to determine the ability of students in class X SMA in biology subjects or in biology Olympiad. Many students could not answer the questions, this was due to the students' lack of understanding of the viral material. So it needs to be analyzed regarding the virus material and student difficulties in receiving material and so on. The role of the teacher is the most decisive factor for achieving learning completeness. The teacher first confirms the

learning objectives that must be achieved and plans an evaluation. The results of the evaluation can inform the learning materials that have been and have not been mastered by students.

Based on the results of research by Umiyati (2014) regarding the factors causing learning difficulties of class X students in the subject of viral biology, it shows that the influence of external factors is more influencing the learning difficulties of students from the two sample classes, the external factors are learning facilities in the school. Meanwhile, Tobing (2015) stated in his research that the factors that most influence student learning difficulties are internal factors which include student interest in learning by 75.25% and learning motivation of 75.95%. Meanwhile, external factors that affect student learning difficulties which include the media are only 65.66%. Based on research by Harahap (2017), in his research it was stated that the factors that most influence student learning difficulties are internal factors which include physical factor and external factors in the form of parent, teachers, school, and lesson. According to research by Husnifa (2016), it is stated that the factors are most influence student learning difficulties are internal factors, namely inadequate learning media for viral material such as (incomplete books, laboratories) this indicates that students do not have complete references in studying virus material.

Based on an interview with the biology teachers (Dra. Florida br Ginting and Drs. Nirwan Barus) at SMA Negeri 1 Berastagi, on Biology material in general, students still experience difficulties in terms and their perceptions of biology subjects having a lot of memorization, one of which is Virus material. According to the teachers more than half of students get the score under the value of KBM, in SMA Negeri 1 Berastagi applying the KBM value (completeness Minimum Learning) for class X which is 75 in odd semesters. This is because students have difficulty understanding the biological material, including virus material. This difficulty is also exacerbated by the low interest of students in learning in class and repeating lessons at home.

Based on the background that has been described, it is necessary to conduct research to analyze the factors and levels of student learning difficulties in the subject matter of Virus in class X MIPA SMA Negeri 1 Berastagi.

1.2. Problem Identification

Based on the background above , the problems in this study are:

1. Students have difficulty studying Virus material
2. Students get low scores under the KBM on Virus material
3. Students are less responsive during the learning process
4. Students find it difficult to be conducive when the biology teaching and learning process takes place
5. Students have difficulty to understanding virus material, includes their characteristics, classification, structure and life cycle
6. Virus material for students consider too much
7. Use of different scientific terms in virus taxonomy

1.3 Scope of the problem

The scope of this research is to find out students' learning difficulties in the viral material in the cognitive aspects and indicators and factors that cause learning difficulties for class X MIPA students of SMA Negeri 1 Berastagi.

1.4 Formulation of the Problem

Based on the scope of the problem, the problem formulations in this study research are :

1. How is the level of student learning difficulties in studying Virus material from the cognitive process aspects in class X MIPA SMAN 1 Berastagi in the Academic Years 2020/2021?
2. How is the level of student learning difficulties in studying Virus material from the aspect of learning indicators in class X MIPA SMAN 1 Berastagi in the Academic Years 2020/2021?

3. What are the factors that cause learning difficulties for students in studying Virus material from the aspect of learning indicators in class X MIPA SMAN 1 Berastagi in the Academic Years 2020/2021?

1.5 Limitation of the Problem

Based on problem identification, the problem in this study is limited to:

1. Student learning outcomes in studying Virus material in class X MIPA SMA Negeri 1 Berastagi for the Academic Years 2020/2021.
2. Student learning difficulties in studying Virus material from the aspect cognitive process aspects in class X MIPA SMA Negeri 1 Berastagi in the Academic Years 2020/2021
3. Student learning difficulties in studying Virus material from the aspect of learning indicators in class X MIPA SMA Negeri 1 Berastagi in Academic Years 2020/2021.

1.6 Objectives of Research

Based on the formulation of the problem, the objectives of this study are as follows:

1. Knowing the level of student learning difficulties from the cognitive process aspects of the virus material in class X MIPA SMAN 1 Berastagi in the Academic Years 2020/2021.
2. Knowing the difficulty level of student learning from Virus material from the aspect of learning indicators in class X MIPA SMAN 1 Berastagi in the Academic Years 2020/2021.
3. Knowing the factors that cause learning difficulties in students in studying Virus material in class X MIPA SMAN 1 Berastagi in the Academic Years 2020/2021.

1.7 Benefits of Research

After doing the research, it is hoped that this research will have the following benefits:

1. Improve the quality of learning about viruses in particular, and biology in general.
2. Provide information and experiences for researchers about real classroom learning problems.
3. Encourage teachers to look for alternative / remedial actions in overcoming student difficulties in learning biology, especially on viruses.

1.8 Operational Definitions

1. Analysis is the investigation of an event to find out what caused it. In this case the analysis of student learning results to find out the reasons that allow the achievement of student learning results is not optimal by describing data about learning difficulties.
2. Learning difficulties are obstacles in the teaching and learning process experienced by students that affect the learning results they get.
3. Virus is a material that discusses microorganisms that are small in size, and have detrimental impacts and benefits on life. Viruses have different body shapes and structures. Therefore, an analysis was carried out on the virus material to find out the most dominant indicators that were difficult for students to understand.