

## CHAPTER 1

### INTRODUCTION

#### 1.1. Research Background

Education is the process of gaining information about the surrounding world while knowledge is something very different. Studying at school is commonly understood as an activity or process of gaining knowledge or skill by studying, practicing, being taught, or experiencing something. There are four pillars of universal education as formulated by UNESCO (1996), namely: (1) learning to know, (2) learning to do, (3) learning to be, and (4) learning to live together.

Learning to know implies basically that learning is not only orientated to the products or outcomes of learning, but also must be oriented to the learning process. Learning to do, implies that learning is not just hearing and seeing, but learn to do with the ultimate goal of mastery of competencies that are needed in an era of global competition. Learning to be implies that learning is a form of human being himself. In other words, learn to actualize themselves as individuals with personalities who have responsibility as human being. Last is learning to live together means learning to work together.

In view of the modern psychology of learning is not just memorizing number facts or information, but mental events and processes are experienced. Therefore, any learning process requires the involvement of students through intellectual-emotional cognitive assimilation and accommodation to develop knowledge, action, as well as direct experience in order to establish skills (motor, cognitive, and social) as well as the appreciation of the internalization of values in attitude. In the learning process, the problem of low academic achievement of students in the examinations is one of the most challenging problems that faces students as well as teachers. The students' low academic achievement on the exam can be defined as low or weakness of the student's mark under the normal average in a study subject level as a result of a variety of reasons. This may lead to frequent repetition of failure, despite their abilities that qualify them to get the best marks (Rumini, *et al.* 2013; Supriyono, 2013).

There are many factors that contribute to a student's drive, motivation, and work ethic regarding academic achievement. Teachers, parents, peers, and community

members who are knowledgeable about these factors can best help each high school student succeed. Factors directly related to the school environment for teens can also impact academic achievement. There is no one person, organization, or factor to place blame or praise upon in terms of each student's success. Slameto (2003) claimed that learning difficulties occur due to the inability of students to associate new knowledge with old knowledge that leads to incomprehension or uncertainty about a material. On the other side, Huitt (1999) also believed that teachers are totally responsible for student achievement.

Regarding to teachers, analysis of learning difficulty is necessary as it will give the teachers ideas to improve, choose and modify strategy relevance to the problem emerge (Sagala, 2010). Abe (2014) focused on the importance of learning media in studying Biology. He believed that the lesson material of Biology can be experienced through student's daily life, so factual objects may be incorporated in the process of teaching will help student to comprehend the material easily.

Another thing such as teacher's style of teaching is also fundamental to the student's success in the exam. There are a few fundamental teaching styles most educators tend to use. In more thorough study, the Latin American schools were once claimed that the availability of basic infrastructure and services (water, electricity, sewage), didactic facilities (sport installations, labs, libraries), as well as the number of books in the library and computers in the school do have an effect on the achievement of education students there. The results indicated the need to continue investment in resources and facilities and to incorporate this factor into school effectiveness models that are meant to become universal (Murillo and Roman, 2011).

Learning difficulty in biology have been widely studied by researchers worldwide (Tekkaya, 2001; Cimer, 2011). The terminology, abstract concepts, and the language used (Latin and foreign) in Biology are some of the problem students may experience. The research by Çimer's (2012) also found similar findings that basically the material of Biology itself is the main reason for students having difficulty learning biology. Many concepts or topics in biology, including the structure and function of plant tissue, water transport in plants, protein synthesis, respiration and photosynthesis, gaseous exchange, energy, cells, mitosis and meiosis, organs, physiological processes,

hormonal regulation, oxygen transport, genetics, Mendelian genetics, genetic engineering, and the central nervous system can be perceived as difficult to learn by secondary school students. One common way of learning them is through a process of memorization and is not the best way of improving student's performance in the lesson material (Chiepetta and Fillman, 1998; Osborne and Collins, 2001).

Several findings indicated that internal factors such as student's interest and motivation, and state of health as well as external factor such as the nature of the subject such as Biology are some to mention that has contributed to the learning difficulties in biology (Ritonga, 2016; Siregar, *et al.*, 2017; Rahmadani *et al.*, 2017). A more interesting findings were the curriculum and text books seems to be responsible for some students' failure in the exam (Chiapetta and Fillman, 1998; Tekkaya *et al.*, 2001). Some studies also found that learning media or preparations and laboratory equipments have contributed to student's lower performance in Biology (Utami, 2016). Commonly issues such as the biological level of organization and the abstract level of the concepts are part of the subject which was considered difficult. Several reasons are also common such as the nature of the topic, teachers' teaching style, students' learning and studying habits, students' negative feelings and attitudes towards the topic, and a lack of resources (Zoubi and Younes, 2015).

While many studies have explored about students having difficulty to study Biology, there is a need to study about this in more detail. In some research said there are six major topic in biology that have the highest difficulty such as monohybrid and dihybrid crosses and linkages, genetic engineering, genetic control of development and metabolic processes, the meiosis process, central nervous system, sense organs and co-ordination gametes, alleles and genes is also difficult to study by students (Bahar, *et al.* 1999). Research that held by (Etobro and Fabinu, 2017) also found that nutrient cycling in nature, ecological management, and conservation of natural resources, pests and diseases of crops as well as reproductive system in plants were perceived to be difficult by the students.

Similar tendency was observed during the internship program at Grade VIII Students of SMP Negeri 3 Percut Sei Tuan Deli Serdang last semester. The researcher suspected that similar problem about student's difficulty in studying Biology do exist

everywhere. The test result was documented and obtained to be used as the primary data about the problem. For the purpose of this study the lesson material of Human Digestive System test result was chosen to be analyzed. There are several factors will be taken into account and responsible for the student's low achievement in the lesson material of Human Digestive System. Teacher's style of teaching, media, and the contribution of school infrastructure, books and other school's facility will be explored to give a thorough understanding about the problem at this school. The study will answer questions for each indicator of the lesson material and determine which indicator that students have difficulty about. The title of the research is “ An Analysis of Student's Learning Difficulties on Human Digestive System **Grade VIII Students of SMP Negeri 3 Percut, Sei Tuan Deli Serdang Academic Year 2017/2018.**”.

## **1.2. Problem Identification**

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

1. The nature of Biology lesson material is difficult.
2. The lesson material of Biology is not interesting for students.
3. The student's low achievement in the Biology lesson material.
4. Learning media is absence during the teaching process.
5. Insufficient time allocation in the curriculum.
6. Teacher-centered method is still an on-going way of teaching.
7. Lack of learning aids.

### 1.3. The Scope of the Problem

The scopes of the research are following below:

1. Analysis learning difficulty based on indicator aspect on Human Digestive System lesson material of grade VIII SMP Negeri 3 Percut Sei Tuan Deli Serdang Academic Academic Year 2017/2018.
2. Factors affected/ influenced learning difficulty of Human Digestive System lesson material of grade VIII SMP Negeri 3 Percut Sei Tuan Deli Serdang Academic Academic Year 2017/2018.

### 1.4. Research Questions

The research question can be formulated as follow:

1. Which indicator of the Human Digestive System lesson material do students of grade VIII SMP Negeri 3 Percut Sei Tuan Deli Serdang Academic Academic Year 2017/2018 have difficulty on?
2. What are the factors affected students's learning achievement on Human Digestive System lesson material of students grade VIII SMP Negeri 3 Percut Sei Tuan Deli Serdang Academic Academic Year 2017/2018?

### 1.5. Research Objective

Based on problem statement above, the objective of this research are:

1. To determine which indicator of the Human Digestive System lesson material do students of grade VIII SMP Negeri 3 Percut Sei Tuan Deli Serdang Academic Academic Year 2017/2018 have difficulty on?
2. To determine what are the factors responsible on the low student's learning achievement on the lesson material of Human Digestive System of students grade VIII SMP Negeri 3 Percut Sei Tuan Deli Serdang Academic Year 2017/2018.

### 1.6. Research Benefits

The research is expected to benefit several parties:

1. School: as information about alternative strategy to deal with difficult lesson material in Biology.
2. Teachers: as information to improve their teaching strategy.
3. Researcher: as information about teaching Biology and rising awareness about factors affecting student's and teacher's problem during their process of teaching and learning.

### 1.7. Operational Definitions

Analysis of learning difficulties is an activity undertaken to accurately identify the types of learning difficulties encountered by students and describe the factors that cause student's learning difficulty in the lesson material on Human Digestive System lesson material.

