

# CHAPTER 1

## INTRODUCTION

### 1.1. Research Background

One supreme reason to study in life is that people gain confidence from the subject or subjects, as after studying they have the knowledge to share and to contradict. When they understand one thing it will give them that you increase your knowledge and you become more powerful and strong. It gives you more opportunities later in life, basically. If you do well in school, you can get better jobs, recommendations and college opportunities. In having good or at least decent grades, you'll find it much easier to get jobs, which equates to more money. 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. All of these learning processes implies that learning is about the outcomes and the processes of it. Students will have all it takes to be able to perform well in the exam in order to master the competences they study, but still learning to have responsibility as human kind.

During the process students may encounters problem and difficulty. Inability to achieve their maximum performance at school may come from internal and external factors. Djamarah, (2011) in his book states, at least, five characteristics of student's learning difficulties. They are: (1) Demonstrate low learning achievement; (2) Learning outcomes achieved are not in balance with the efforts undertaken; (3) Learning tasks are not submitted on time; (4) Unreasonable failure attitudes in the classroom; (5) Showing unfriendly behaviour to others. He has stated before that a person's success or failure in learning caused by factors originating from within the individual and factors outside the individual (Djamarah, 2002). 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. Understanding the problem is critically important to anticipate the subsequent and frequent repetition of failure (Rumini, *et al.* 2013; Supriyono, 2013). Motivation, study habits, lesson material,

academic preparedness are some of the internal factors, and the external factors are, for examples, attitudes, instruction, and relevancy issues (Cherif, *et.al.* 2016).

In general the material consists of the scope of biology, biodiversity, classification of living things, ecosystems, cell biology, plant structure, animal structure, motion system, circulatory system, fungi, respiratory system, excretory system, coordination system, system hormones, reproductive systems, growth and development, metabolism, genetics, evolution, and biotechnology. All materials are delivered gradually from grade 10, 11, and grade 12.

One of the external factors affect student's performance to study this topic is the nature of the lesson material itself. Biology subject is accepted widely as having the abstract level of the concepts which make learning biology is difficult for some of students. Overloaded biology curricula and difficulties with the textbooks are also playing an important role to make studying biology is not easy for some student (Chiapetta and Fillman, 1998 and Tekkaya et al., 2001. *in* Çimer (2012). The research about this in Turkey concluded that students, at least, faced difficulty to study five topics in biology (matter cycles, endocrine system and hormones, aerobic respiration, cell division, and genes and chromosomes) are the most difficult material to study. The nature of the topic is one of the main reasons (teachers' style of teaching, students' learning and studying habits, students' negative feelings and attitudes towards the topic and a lack of resources). Using the visual materials, teaching through practical work, reducing the content of the biology curriculum, using various study techniques, teaching biology through connecting the topics with daily life, making biology learning interesting, and increasing the number of biology questions in the university entrance examination were revealed as solution.

Hidayatussaadah (2016) and the results of research conducted by Hasibuan and Djulia (2016) showed that the difficulties happened due to the failure of the students in understanding the terminology, understand the concept, and write a scientific name. For example, students' inability to explain virus replication and to distinguish the body structure of viruses from the body structures of other living things were some to mention. Cimer (2012) found that five topics in biology learning that were considered difficult by high school students in Turkey (material cycle, the endocrine system and hormones, aerobic respiration, cell biology, and genetics). The

results of other studies conducted by Tekkaya et al. (2001) also mentioned additional findings that the material of endocrine and hormonal systems, cell division, and genetics were material that students find difficult on biology. The difficulty occurred because most of the material is considered abstract by students and is very complex.

Students also found difficult to memorize the material of biology. This can be very detrimental when happens to students learning process. As it is accepted widely that memorization is not the best way of improving student's performance in the lesson material (Chiepetta and Fillman, 1998; Osborne and Collins, 2001). The subject of biology is learnt by most of students through the process of memorization the terms, processes involved in the material, and also words in foreign language found in the content.

Another finding stated that the curriculum and text books seems to be responsible for some students' failure in the exam (Chiepetta and Fillman, 1998; Tekkaya *et al.*, 2001). The learning media or preparations and laboratory equipments have also contributed to student's lower score in Biology (Utami, 2016). Adding to the problem, teachers' teaching style, students' learning and studying habits, students' negative feelings and attitudes towards the topic, and a lack of resources are recognized to have contributed to the lower student's outcomes (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. The researcher suspected that similar problem about student's difficulty in studying Biology do exist everywhere. Finding the data through the test activity at the school and the test result is going to be documented and obtained from school and to be used as the primary data about the problem. For the purpose of this study the lesson material of Fungi test result is 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 Fungi. 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 of. The title of the research is “ **An Analysis of Student's Learning Difficulties and Its**

## **Factors on Fungi Grade X IPA of SMA Negeri 2 Lubuk Pakam Academic Year 2020/2021.”**

### **1.2. Problem Identification**

Based on the background, there are several problems:

1. The material of biology is considerably difficult for of the students.
2. There is material of biology is considered abstract for students.
3. Lack of learning media for the subject of fungi.
4. Students are not interested to study biology.
5. Students have low score in biology subject.
6. Time allocation in the curriculum is still an issue of being insufficient.
7. Teacher-centered method is still used.

### **1.3. Scope of the Problem**

The research is limited to:

1. Analysing the student's learning difficulties based on the indicator aspects in the topic of Fungi.
2. Factors which contribute to the student's learning difficulties studying the topic of Fungi.

### **1.4. Research Questions**

The research questions are formulated as follow:

1. Which indicator aspect does students have difficulty of learning in Fungi topic?
2. What are the dominant factors affecting student's learning difficulty to study the topic of Fungi topic?

### **1.5. Research Objectives**

There are two objectives of the research, they are :

1. Determine the student's learning difficulty based on cognitive aspects and on Fungi topic.
2. Determine the dominant factors affecting student's learning difficulty Fungi topic.

### **1.6. Research Benefits**

The research will significantly contribute to:

1. Support schools with appropriate approaches dealing with students with difficulty in learning Biology in general and the Fungi specifically.
2. Improve teacher's quality of teaching strategy on Fungi topic.
3. Provide more information about teaching biology, especially Fungi topic.
4. Provide information about strategy to deal with problem of limited infrastructures such as laboratory at school.

### **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 Fungi lesson material.