

## **CHAPTER I**

### **INTRODUCTION**

#### **1.1. Background**

The numbers of universities in certain countries correspond with their total population. In Southeast Asia, Indonesia has the highest population at around 250 million (Meerman, 2014). Higher education in Indonesia is divided into several types of institution namely polytechnics, academies, institutes and universities (Buchori & Malik, 2004). Some of these are government controlled, some are religiously affiliated and some are privately funded. The state universities come under the responsibility of the Directorate of State Universities within the Directorate General of Higher Education. The Ministry of National Education, through the Directorate General of Higher Education, exercises authority over both state and private institutions. State institutions are financed by the central government, although provincial government may also provide funds.

Over the 4.445 higher education institutions, only 121 are state (RISTEK DIKTI, 2017). State schools offer a wide range of subjects and the education is considered to have a better quality than in private institutions. State institutions have existed for many years whereas the private institutions are relatively new. Admission into a state university is very competitive, with only several percent of students taking the entrance exam being accepted in some years. Therefore, the private institutions administer its own admission tests system. Over half of students who attend a private university go there because of a lack of space in state universities. The limited capacity due to government expects the graduates has good quality and be able to complete their study on time.

The need to study at the prestigious university is related with interest in study at the state university rather than to the private ones. This remains true as indicated by earlier studies (Kusumawati, et al., 2010). This finding aligned with Emanuella di Gropello (2011) studied that Indonesia is as same as Philippine which graduates from state rather than private institutions seems to fare better across the board. The 2008 employer skill survey shows that there are clearly more private

than state universities performing below average and that state technical institutes perform better than private ones. Other sources confirm this evidence, BAN-PT's assessment generally show lower quality for private institutions. This line of thought parallels that noted the most Private Higher Education Institution are of poor quality. They also stated that private schools are often a prospective student's second choice (Buchori & Malik, 2004).

Regulation of the Minister of Research, Technology and Higher Education in National Education No. 2 Year 2015 concerning Student Admissions for Undergraduate Program at the State University that student admissions' mechanism for undergraduate program in higher education level will be held through the National Admission Test for State Universities (SNMPTN), Collective Admission Test for State-Universities (SBMPTN) and Internal Admission Test for State-Universities (UMBPTN) to be fully implemented by its rules. Refer to the regulation above, State University of Medan which the position is in the 29<sup>th</sup> for the whole university in Indonesia, is applying the student admissions' mechanism which has their own test instrument to qualify the students particularly in Biology Department on State University of Medan (Humas UNIMED, 2016).

Ministry of National Education Policy have changed the procedure of student admissions in the entire universities in Indonesia from the conventional admissions (through test) to report card for 50% since 2013 due to gain good and qualified student. The success of the students academically marked with achievement accomplished (Salam, 2009). Theoretically, student that were accepted through SNMPTN must be outperformed and the best qualified than another student accepted through other admission test. However, researchers stated the opponent result. Recent research found that students were accepted through SBMPTN got the highest score for biology competency than SNMPTN and UMBPTN admission system (Manurung, *et al.*, 2016). Usman's (2015) research also stated that students who enter via the pathway SBMPTN categorized as very satisfactory average of 2.816, which is entered through SNMPTN categorized as very satisfying average of 2.667 while entry through UMBPTN by category satisfying an average of 2.259. Another research shown that there is no difference

in students' academic achievement PMJK track / PMDK through SPMB admission at the Department of Biological Science UNM (Hamka & Muhiddin, 2010). Furthermore, relevant to those research above, Britton & Tesser (1991) stated that American College Test (ACT) is used to predict the successful in university level (Kern, 1998). Allen (2013) also stated that the ACT provide information students' successful in typical first year (Allen & Mattern, 2016). ACT scores were statistically significant in predicting the number of college credit hours earned at the end of the college academic year (Reuschel, 2009).

Students' attitudes towards the environment is considered important to know, because as students are active agents of change. Environmental education is seen as the most important way to educate people about environmental issues at all levels of education. One of the essential learning outcomes of environmental education is to change the attitude of students to be more positive for the environment (KÖSE, *et al.*, 2011).

As preliminary observations, there are 312 students of Biology Department in Faculty of Mathematics and Natural Sciences at State University of Medan, academic year 2016/2017 which consists of 119 students through SNMPTN, 136 students were accepted through SBMPTN and 93 students were accepted through the UMBPTN.

Further study about student's performance in university compared to high school is absolutely important for restoration of student admission system. If there is not, the inequality of student's quality phenomena will occurs over and over continuously. Therefore, by reviewing the importance student's academic success in university especially through student's competency, it is considered important to arrange further research on "The Relationship Between Student's Performance in Senior High School and University Level on Environmental Biology Aspect Through Student Admission Test in Department Biology at State University of Medan on Academic Year 2016/2017".

## **1.2.Problem Identification**

Based on the background description above, researcher identified the problem as follows

1. Student achievement in high school assumed eligible to university admission through SNMPTN.
2. The quality of student in high school is different to the university level
3. Student performance for students that accepted through SNMPTN in the first semester is not as well as expected.
4. The awareness of student to the environment is low.

### **1.3.Problem Scope**

In order to make this research become more focus, this research will discuss the limited problem about the student's performance in senior high school and university level in Biology Subject through student admission test and also the student's awareness to the environmental biology based on their student admission test.

### **1.4.Problem Formulation**

1. Is there any significant differences of student achievement to environmental biology competency based on student admission test of Biology Department at State University of Medan on Academic Year 2016/2017.
2. Is there any significant correlation between the average score of report cards in biology subject with student's competency in environmental biology course on senior high school through students admission test of Biology Department at State University of Medan on Academic Year 2016/2017.
3. Is there any significant correlation between the score of national examination in biology subject on senior high school with student's competency in environmental biology course through students admission test of Biology Department at State University of Medan on Academic Year 2016/2017.
4. Is there any significant correlation between the score of final examination in biology subject on senior high school with student's competency in environmental biology course through students admission test of Biology Department at State University of Medan on Academic Year 2016/2017.
5. Is there any significant correlation between the score of report card, national examination and final examination jointly in biology subject on senior high

school with student's competency in environmental biology course through students' admission test of Biology Department at State University of Medan on Academic Year 2016/2017.

6. Is there any significant differences of student's awareness to the environment based on student admission test of Biology Department at State University of Medan on Academic Year 2016/2017.

### **1.5. Research Objectives**

The purpose of this research was conducted to determine:

1. To determine the differences of student achievement to environmental biology competency based on student admission test of Biology Department at State University of Medan on Academic Year 2016/2017.
2. To determine relationship between the average score of report cards in biology subject with student's competency on senior high school in environmental biology course through students admission test of Biology Department at State University of Medan on Academic Year 2016/2017.
3. To determine relationship between the score of national examination in biology subject on senior high school with student's competency in environmental biology course through students admission test of Biology Department at State University of Medan on Academic Year 2016/2017.
4. To determine relationship between the score of final examination in biology subject on senior high school with student's competency in environmental biology course through students admission test of Biology Department at State University of Medan on Academic Year 2016/2017.
5. To determine relationship between the score of report card, national examination and final examination jointly in biology subject on senior high school with student's competency in environmental biology course through student admission test of Biology Department at State University of Medan on Academic Year 2016/2017.



6. To determine the differences of student's awareness to the environment based on student admission test of Biology Department at State University of Medan on Academic Year 2016/2017.

### **1.6. Research Contribution**

The research will be useful for:

1. Improving and developing scientific perception related to the relationship scores of report card, national exam and final test jointly in biology subject with both Student's Competency in Environmental Biology based on student admission to do research further.
2. As source of information for other researchers who are interested to do further research.
3. As source of information for government consideration to improve the student admission system by improving the assessment criteria during the admission test.

### **1.7. Operational Definition**

1. Student performance in senior high school is learning outcome that the student's got in senior high school
2. Report card is student learning outcome in biology subject from the first up to the sixth semester in senior high school
3. National examination is the score of national examination in biology subject in senior high school
4. National examination is the score of final examination in biology subject in senior high school
5. Student performance in university is cognitive and affective knowledge in environmental biology course in the university