CHAPTER I
INTRODUCTION

1.1. Background of Study

The twenty-first century education must be able to behave and anticipate the development of labor market liberalization and the development of science-based society. This is a form of claim from ratified various international conventions like AFTA (Asean Free Trade Area) and GATS (General Agreement on Trade in Services). The scope of the international convention clearly shows the need for understanding of the international community in terms of the qualifications of workers. For this reason, every country participating in the convention must have a labor qualification system that can be understood together, called the qualification framework. The qualification framework is an instrument that produces a person's qualifications based on a set of criteria that are associated with the level of learning achievement that he has obtained, this is an effort to anticipate that globalization. Equality of qualification system provides wider mobility, create recognition of international equality of diplomas or competency certificates produced by education and training institutions, and will facilitate exchange of students or experts.

The Government has responded to these demands by forming a qualification framework at the national level called the Indonesian Qualification Framework (IQF) which is regulated in Peraturan Presiden No. 8 Year 2012. IQF is a competency qualification framework that can juxtapose, equalize and integrate between the education sector and the field of job training in order to provide recognition of work competencies in accordance with the structure of work in various sectors. This qualification framework is a measure of the qualifications of graduates to produce quality and competitive human resources at the global level.

Many countries has a qualification framework. Such qualification framework are WSQ (Singapore), NQF (England), Europass (Europeans), AQF (Australia), HQF (Hongkong) and NCP (France). Every qualification framework has different levels such as in Hong Kong (7 levels), in Europe (8 levels), and in Indonesia (9 levels). This qualification rank does not necessarily mean that the

levels prevailing in Indonesia are higher than those in Hong Kong or vice versa (Prasetyo, *et al*, 2014). This means that the type of qualification on IQF is designed between producers and users of graduates, education/training/course culture in Indonesia at this time with a graduate degree in every educational pathway that applies in Indonesia.

The formation of IQF has an impact on the curriculum and its management in each study program. The rigorous curriculum is on the achievement of competence to become a leader in learning achievement. The curriculum in universities since 2012 has experienced a slight shift by providing a measure of equal learning achievement. This curriculum is still based on achieving capabilities that have been equalized to maintain the quality of graduates. This curriculum is known as the IQF-Based curriculum.

The implementation of IQF Based curriculum took place in several universities, it has been implemented in several universities, especially Teacher Training Institutions (LPTK) such as the Indonesian Education University (UPI), Jakarta State University (UNJ), and State University Yogyakarta (UNY). In practice, not all universities can implement an IQF-based curriculum that runs smoothly without constraints, both because of unpreparedness in human resource and inadequate devices. As a new product, the IQF-based curriculum does require a long time both in preparation, arrangement and in applying the curriculum (Waseso and Hidayat, 2017).

Medan State University (Unimed) specially the Faculty of Mathematics and Natural Sciences (FMIPA) implemented an IQF based curriculum in academic year of 2016/2017. The implementation of IQF based curriculum in FMIPA Unimed re-affirmed by Surat Keputusan Rektor number: 0149/33 UN/LL/2016. On this curriculum itself implemented some types of assignment in every course as their strategy to produce the good quality of their graduates. The unique strategy carried out is by giving 6 assignments to students, including: routine assignments, critical book reports (CBR), critical journal reviews (CJR), ideas engineering, projects, and mini research. In its implementation, various guidelines for the completion of IQF tasks at the university level are prepared, both in terms of the way of completing 6 tasks and in terms of their assessment for every course

they are take, so if in one semester they have to take eight course, they must be finished forty-eight assignments in one semester (Faisal and Lova, 2018). After two years implemented IQF- Based curriculum, this curriculum has been revised and this implemented since academic year of 2018/2019. This revised make some differences at dissemination of mathematics and natural sciences course which aim at the expected learning process and student learning outcomes in accordance with the learning outcomes that have been formulated according to level 6.

The course distribution of first year science student in academic year 2018/2019 it has a very significant difference in number of course for basic MIPA courses in odd and even semester. The odd semester consist of four courses, while in the even semester only consist of two courses and it is known that there is an addition of one new semester course 2018/2019 school year in the basic MIPA course group.

The number of courses in one semester is much, makes researchers have to choose one of them because of time and ability limitations. So, the researcher took one course, General Biology. This courses conduct IQF curriculum based assignments in their learning process. The assignments that given to students are six assignment start from routine task, this task given to students in the form of questions related to the topic that will be discussed at each meeting that will be collected at the end of the lecture meeting hour or at the next meeting. Furthermore, in the task of critical book students are required to compare books to analyze, tasks are carried out in groups and each group is freed to determine two materials to be analyzed. The difficulty faced is the time when the assignments are given by the lecturer, each group must collect two-week CBR assignments after the assignment is given.

The critical journal report task, students must review the journal, the material accordance to lecture material and compare it with two different journals. Difficulties faced are the same as critical books because journals are recommended by international scientific journals. Whereas in the engineering task the idea given is in the form of written ideas about trends in the world of biology. The difficulties faced when they are less able to think critically can not be collected on time. In the mini task assignment research carried out in the field,

students are divided into several groups and each group is given a topic in accordance with the lecture material and then begins to make observations in the field. The last task is a project carried out by planting lettuce plants and observing the growth and development of these plants. The difficulty is to make observations every day to collect data on growth and development of lettuce.

The first year science student is a new student in university, they are new in campus environment and they are in a transition condition that still adjusts to its environment. First-year students often experience problems in assignments, social relationships and financial problems (Izzah, 2012). According to Utomo (2007) assignments occupy the first problem for new students because the number of assignments at the university is more than in senior high schools and they are not yet familiar with the assignments.

Implementation of IQF curriculum based assignments, it is known that students still cannot collect assignments in a timely manner, followed by the low quality of student assignments, where in the execution of the task the use of international journals and books as a source of reading is still very low. In addition, students are also not really understand how to finish the tasks (Nabila, 2018). From several research we know the obstacles of the implementation of IQF curriculum, the implementation of IQF Curriculum in some LPTK in Bengkulu we know from five universities that were sampled, four of them did not have readiness in organizing the IQF-based curriculum due to institutional internal factors (Jono, 2016) and the implementation of this curriculum is not suitable with the standards based on the analysis (Casmidi, 2014).Other side the IQF based curriculum emphasizes importance of learning outcomes as determinant of the university graduate profile. Therefore, it is important to map learning outcome that affect the quality and competitiveness of university graduates so they can be improved to respond stakeholder needs (Trisnaningsih, 2018).

Based on the background above, it is necessary to do research on the implementation of IQF curriculum on the Mathematics and Natural Sciences Faculty. This research study focused more on perceptions of first year science students (academic year 2018/2019) specifically the general biology course and how the relationship of that perception to learning achievement.

1.2. Problem Identification

Based on the background of the study above, the problem identifications of this study are as follows:

1. Students who are not yet familiar with the six assignments.
2. Implementation of IQF curriculum carried out so far is not standard based on need analysis.
3. The implementation of IQF Curriculum based assignments in each courses decreasing focus of students in learning process.

1.3. Problem Scooping

By regarding the extent identified problems therefore in this research, the scope of study is limited in perception of students that learn General Biology course academic year 2018/2019 on IQF based assignment curriculum and also the relation with the quality of learning achievement on Faculty of Mathematics and Natural Science Medan State University.

1.4. Research Questions

The research questions are formulated as follow:

1. What are first year science student's perception on IQF Curriculum based assignments in General Biology Course on Faculty of Mathematics and Natural Sciences Medan State University?
2. What is the first year science student's achievement on IQF Curriculum based assignments in General Biology Course on Faculty of Mathematics and Natural Sciences Medan State University?
3. What is relationship between first year science student's perceptions on IQF Curriculum based assignments and learning achievement in General Biology course on Faculty of Mathematics and Natural Sciences Medan State University?

1.5. Research Objectives

This research is aimed to now:

1. The first year science student's perception on IQF Curriculum based assignments in General Biology Course on Faculty of Mathematics and Natural Sciences Medan State University

2. The first year science student's year achievement on IQF Curriculum based assignments in General Biology Course on Faculty of Mathematics and Natural Sciences Medan State University

3. The relationship between first year science student's perception on IQF Curriculum based assignments and learning achievement in General Biology course on Faculty of Mathematics and Natural Sciences Medan State University

1.6. Research Significance

This research will significantly contribute for:

1. Improving the perception of student's toward IQF curriculum based assignments.

2. Improving the quality of assignments that implemented on IQF based curriculum.

3. As source of information for other researchers who are interested to do further research.

4. As source of information for government consideration to improve the implementation of IQF.