CHAPTER I
INTRODUCTION

1.1 Background

Learning is a process of understanding something, understanding for what is seen, heard, and what is being said. Essentially, teaching is a process, namely the process of arranging, organizing the environmental of student arround, so to foster and encourage student's learning process (Sudjana, 2002). Learning method are procedures or ways that will be done to giving the subject material (Saptorini, 2004). Teacher as supervisor must be turn on the students motivation to make interaction process condusively. The development of student learning does not always run smoothly and deliver the expected results. Difficulties can occur in the learning process. The government provides a solution for students who want to do tutoring to help overcome learning difficulties and support student achievement that is the non-formal education according to UU Sisdiknas No. 20 year 2003.

This study based on observation to studenst about what their reason to follow tutoring of some tutorial institution in ex school, such as to get higher achievement in school and demand of academic and their parents also explain that learning schedule of their children in tutorial is more programmed, and improve learning skill and knowledge. Tutorial is nonformal education as assistance process that given to individuals who need it, without interfering that given systematically. Based on Kamil (2009) formal, informal and nonformal education are parts of continuing education and lifelong education, these parts can't be separated.

As the addition, the result of interview with Jujung (2015), the owner of Quantum Smart Education (QSE) and also consultant of SMAN 2 Medan explain that are several factors that lead to low student achievement in school if comparing with tutorial, namely the lack of student motivation (self-motivation and motivation to learn from the teacher), lack of allocation time in school lessons and lack of

exercise/drilling at school. In tutorial, teaching method is accompanied by more exercises that called as drilling method. This is also the reason of parents and students who want to learn more hours in tutorial, ex school. However, the high cost of tutoring in tutorial institution make the most of the students can not attend tutoring in tutorial institution because financial problem.

Drilling method is a teaching method by giving repeated exercise so that students acquire the knowledge and specific skills from what they has been learned. In tutorial drilling method is evident from the presence of the module and questions bank. This method can be conducted on learning of chemistry, especially for salt hydrolysis topic that are many calculation and concepts to stimulate student activity to solve the problem and active during learning. By doing more exercise student, when student get some difficulties they will be have more skills. Based on research result by Seno (2014) is concluded that drilling & practice method completed by module can improving the student's achievement from 54% cycle I to 80% cycle II and student's activity from 74.65% cycle I to 80,3% cycle II on learning of salt hydrolysis topic. Beside that Kusoro (2009) also explained that student's achievement that using drilling method is higher than student's achievement recitation method on the buffer solution topic.

This method will be integrated into web based learning media , Web based learning media or *e*-learning is a very interesting media to resolve these problem. Today, the world of information technology is getting close to a variety of people, especially students. There are limitations in face-to-face learning that are limited space and time, but web-based learning media is present to be anticipation, learning process can be done anytime and in anywhere. Students also have less willing in using school facilities like personal computer and internet access in learning process, accept in examination process.. Based on result of the reasearch that conducted by Rudi (2014) is shown that student's achievement and motivation of class taught by using web-based learning media has higher significant difference compared with class taught by using textbook on the teaching of salt hydrolysis. Web based-learning

media gives 17,65 % higher student's achievement than textbook and can make student's motivation become good.

From some of the problems researcher hope all students have alternative learning without limits of money, time and place. Then conduct this study with the titled **"The Implementation of Drilling Method Integrated into Web-Based Learning Media to Improve Student's Achievement and Motivation on Learning of Salt Hydrolysis"**

1.2 Problem Identification

Based on the background that explained above, the problem identification in this research includes:

1. Student find difficulties in studying chemistry, so they must have other alternative place to learn (nonformal education, tutorial)
2. Lack of students achievement, motivation and allocation time for drilling in school compare in tutorial
3. The high cost of tutorial make the most of the students can not attend tutoring. because financial problem.
4. Students also have less willing in using school facilities like personal computer and internet access in learning process; accept in examination process.

1.3 Research Scope

The scope of this research to investigate the implementation of Drilling Method integrated into web-based learning media by researchers in delivery of learning materials on the topic of salt hydrolysis in SHS at SMAN 2 Medan and the concept of drilling method at tutorial will be convert to web based learning as the media in school to salt hydrolysis topic .The research that planned will be conducted to student in class XI Science in SHS at even semester on academic year 2014/2015. Student's achievement and motivation of student who are following tutorial and who are not following tutorial will be measured in this research.

1.4 Problem Formulation

The problem formulation of this research includes:

1. Is the student's achievement of students who are following tutorial is higher than the student's achievement of students who are not following tutorial by using Drilling method integrated into Web-based learning media?
2. Is the student's motivation of students who are following tutorial is higher than the student's motivation of students who are not following tutorial by using Drilling method integrated into Web-based learning media?
3. Is there significant correlation between student's motivation and the improving of student's achievement.

1.5 Research Objective

In accordance with problem formulation of the research, then the research objectives are:

1. To determine whether the student's achievement of students who are following tutorial is higher than the student's achievement of students who are not following tutorial by using Drilling method integrated into Web-based learning media.
2. To determine whether the student's motivation of students who are following tutorial is higher than the student's motivation of students who are not following tutorial by using Drilling method integrated into Web-based learning media.
3. To there is significant correlation between student's motivation and the improving of student's achievement.

1.6 Research Benefit

This research is hoped to bring benefits to:

1. Those who are directly involved in learning process (teachers or prospective teacher) that using drilling method integrated into web based learning media can be as alternative choice to improve student's achievement and student's motivation. So they do build a more interesting and effective way to teach and

learn salt hydrolysis that using drilling method integrated into web based learning media.

2. Students who are studying about salts hydrolysis can improve their achievement and motivation and also they can access more materials on web pages anywhere and anytime they want.
3. The next researcher who are interested in doing similar research in the future, especially to student in chemistry department, state university of Medan.
4. The readers get more information and as alternative choice how to improve the achievement and motivation of someone to learn chemistry subject.

1.7 Operational Definition

1. Tutoring is the assistance process that given to individuals who need it, without interfering that given systematically.
2. Drilling is a way of teaching by giving repeated exercise of what has been taught teachers so that students acquire the knowledge and specific skills from what they has been learned.
3. Web-based learning media is a long distance learning system which is based on the information and technology through web pages or weblog as media. The characteristics of Web-based interactive learning media is learning can be done anytime, anywhere, through any path and any access speed with interactive web.
4. Student's achievement are statements that describe significant and essential *learning* that *learners* have achieved, and can reliably demonstrate at the end of a course or program.
5. Student's motivation is internal state or condition that activates behaviors and gives it direction, desire or want that energizes and direct goal-oriented behavior; influence of needs and desires on the intensity and direction behavior.
6. Salt hydrolysis is one of the topic of Chemistry in Senior High School grade XI in second semester. The topic contain are the properties of salt solution, the constant of hydrolysis (Kh), and the pH calculation of salt solutions.