CHAPTER I
INTRODUCTION

1.1. Research Background

Education is one of the most important things for human in all of age, even young or old. This education must be known since early. While the development of era and the advancement of technology, the education also to be developed. While of this development, the education still has a weakness especially in the process of learning. The learning process must be focused on students, how the expressions, the attitude of the students for teaching-learning process, how far the students active and involved in the teaching-learning process. Indonesian education problems in an effort to improve the education level increases as the development of globalization. The development according to their educational improvement. The quality of Indonesian education is still low to encourage the government to make improvements. To achieve success in improving the quality of education, all parties concerned such as subject, object and fasilitator in education is very important. All parties concerned proficiency level has a significant role in the improvement of education. However, that has an important role in improving the quality of education is the subject and object of education itself (Ariesta,2013).

Teacher is the first person and special in increasing the quality of education. As the main subject in the front line in learning process, so the education and guidance that is given by teacher to the students be who determines in carrying the successful of education (Huda, 2012). For this time, at school, there are many teachers that just focus on the subject matter and the result of learning. They were just bustled in some activity to decide the competence goal that would be achieved, to arrange the material that would be taught, and to design the evaluation (Hamruni, 2009).

Learning is essentially a change in behavior. A change in one's behavior is a result shape students' learning process where the student learning outcomes is

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a measure of the success of a lesson. Student learning outcomes are also influenced by internal factors and external factor.

In the process of chemistry learning is still found many students that pretend to understand when the teacher ask them, it is made the student is not understand for all topic of chemistry. In the chemistry learning is also students tend to passive in class due to the lesson is not interested for them and also it may be the teaching of teacher is less attractive to student. Based on the case, the learning process must be implicated well to make the students involved actively. Teacher must be thought and planned a strategy or method to increase the learning process of students. In this case, teacher must be able to do a dynamic process in organizing a class, and using the method and strategy in teaching-learning process. Teacher is demanded to be able to manage the teaching-learning process which give stimulation to the students so that the students will learn (Daryanto, 2012).

Basically, the topics learning in Chemistry have 3 characteristics that is the decomposition of concepts, mathematical calculations, and execution experiments. All of these characters support each other in the full mastery on topic of learning in Chemistry (Zebua, 2009). Salt hydrolysis is one of chemistry topic in Senior High School (SHS) at the second semester class XI. In this topic, there are 3 characters must be mastered namely (1) master of concepts of salt hydrolysis, (2) calculation of pH of salt solution, (3) experimental of determining salt that hydrolyzed. Contextual teaching and learning is one of a model that can be used in this topic, where in this topic have many discussions and calculations also predict the salt that hydrolyzed.

Contextual Teaching and Learning (CTL) is a learning model that emphasizes the involvement of students in full process to be able to find the material studied and relation with real-life situations that encourage students to be able to apply it in life them (Sanjaya, 2011).

Nurhadi (2004) states that, Contextual learning (Contextual Teaching Learning-CTL) is the concept of learning which encourages teachers to connect between what is taught and students real-world situations. CTL also encourages

students to make connections between their knowledge and its application in everyday life. The knowledge and skills acquired for students attempt to construct their own knowledge and new skills as he learns.

Contextual Teaching and Learning (CTL) is a learning strategy that emphasize to students's participate process completely to can inquiry the matterial that learned and relate it in daily life so support the students to can application it in their daily life (Sanjaya,2010). According to B.Johnson (Rusman,2011) contextual teaching and Learning is a sytem that stimulate the brain to arrange the patterns form the meaning. According to Elaine (Rusman,2011) contextual learning is system learning that suitable with brain that produce meaning in relating academic charge with contex from student's daily life.

Based on the researcher's experience when done teaching experience program in school (PPLT) year 2015, there are still some students passive and tend to have self busy. The learning process just focused on the teacher without observe to the expressions of student, how the expressions of the students, if the students understood or not, or just pretend to understand. Beside the method that would be used, a learning process is also important to be attended in teaching-learning.

That is why the researcher choose CTL model in teaching, specially to Salt Hydrolysis topic, where the model can stimulate the students to be active in learning so that the students not to be only listen on teacher but the students also to be trained to solve the problem and active in asking about the topic and active in answering the problem that given by the teacher and also active in communicating to give their opinion. The topics of salt hydrolysis consist of some concepts and calculation of salt so the students are stimulated and are active in contextual teaching and learning.

Collaborative strategies are designed so that no student who can not reach the learning objectives. Through this effort, failing students minimized (because it is not possible abolish them). Not all students are able to jump (jump) in accordance with the expectations of teachers. Group C students are not

necessarily all of them driven by a student, but must be handled by the teacher. So teachers should direct attention to children who did not master

Teaching and learning techniques looking for a partner (index card match) developed by Lorna Curran (1994). One advantage of this technique is that students seeking a partner while learning about a concept or topic in a pleasant atmosphere. This technique can be used in all subjects and for all ages of students (Lie, 2010). So, make a match is a way of learning by finding the matching pairs of cards held, because in this learning students are those who hold the card and the answer is no question that holds the card.

Based on the background above, the writer will make research which its title is: " **The Implementation of Contextual Teaching And Learning Model Based on Collaborative With Media Index Card Match to Increase Student's Achievement on Salt Hydrolysis Topic** " .

1.2. Problem Identification

Based on the background, the writer identifies the problems that are:

1. There is no learning each other and caring each other among the students in learning process.
2. Less of involvement of student in teaching-learning process.
3. In learning chemistry is still found many students that pretend to understand also still difficult in learning of topic chemistry, therefore the achievement of students of chemistry learning is not have an increasing.
4. Contextual teaching and learning is away of constructing and teaching course using learning as a stimulus and focus on student activity, a model that is still not applied in teaching of salt hydrolysis.
5. Collaborative with media index card match is a a way of learning by finding the matching pairs of cards held, because in this learning students are those who hold the card and the answer is no question that holds the card in learning process of chemistry topic.

1.3. Research Scope

To make this research to be specific, the writer identifies the problems and limit only on the using of Contextual Teaching and Leraning (CTL)

Collaborative with media index card can increase the student's achievement on salt hydrolysis topic in SMA N 1 Berastagi grade XI in science program in academic year 2015/2016.

1.4. Problem Statements

The problem statements of this research are:

1. Is the student's achievement in salt hydrolysis using CTL model based on Collaborative with media (ICM) higher than student's achievement using direct instruction model?

2. What is cognitive aspect will be improved by using CTL model based on Collaborative with media index card match in salt hydrolysis topic from C_1 to C_4?

1.5. Research Objectives:

According to the problems, so the objectives of this research are:

1. Knowing the using of CTL model based on Collaborative with media index card match is effective in increasing student's achievement in salt hydrolysis topic compared with direct instruction model.

2. Knowing the cognitive aspect will be most improved by using of CTL model based on collaborative with media index card match in salt hydrolysis topic from C1 to C4.

1.6. Benefits of Research

The benefits of this research are:

1. As the alternative of teaching model for teacher based on Collaborative with media index card match to increase student's achievement in teaching of salt hydrolysis topic.

2. Learning based on Collaborative with media index card match will increase the colleague fellow teacher in order to be able to know how far the teacher teaching well.

3. Connection fellow students will form learning community with learning each other and caring each other.

1.7. Operational Definition

To avoid differences or lack of clarity of meaning, then the operational definition in this research are:

1. Model Contextual teaching Learning (CTL)

   Approach Contextual Teaching Learning (CTL) is a learning approach that helps teachers connect between what is taught with real-world situations students and encourage students to make connections between knowledge possessed by its application in life atara its knowledge with the application in their lives everyday (Jauhari , 2011).

2. Collaboration of Learning

   Collaborative strategies are designed so that no student who can not reach the learning objectives. Through this effort, failing students minimized (because it is not possible abolish them). Not all students are able to jump (jump) in accordance with the expectations of teachers. Group C students are not necessarily all of them driven by a student, but must be handled by the teacher. So teachers should direct attention to children who did not master (Sato in JICA, 2006).

3. Index Card Match

   Index card match is a way of learning by finding the matching pairs of cards held, because in this learning students are those who hold the card and the answer is no question that holds the card.(Saiful dalam Agustifa, 2012)

4. Student's achievement is an ability that is obtained by students after doing learning activity (Abdurrahman, 1999).

5. Salt is the ion compound that consists of metal cation and anion from the salt. Hydrolysis is derived form the word "*Hydro*" that means water and "*lysis*" that means decomposition.