

## CHAPTER I

### INTRODUCTION

#### 1.1 Background

Through the education process in schools and learning activities is the most fundamental, this means that the achievement of educational goals much depends on the learning process experienced by students , (Daryanto, 2010). Education is a process of guidance which determine the pattern of growth and development of children towards maturation. Therefore, education is a basic human needs in the process of potential coaching sense, spiritual, physical and moral. The concept of learning rooted to the students and teaching on students.

The problem of education can not be separated from the problem of learning because learning is at the core of education prosses. Improving the quality of education shows on improving the quality of learning processes and outcomes. A good quality education system in term of its process is if the learning process takes place in an effective and students experience significant learning process and supported by sufficient resources (Hamid, 2007: 1). The effectiveness of learning is described by the achievement of learning achieved by the students. In other words, the more effective of learning so the student learning outcomes become better.

The number of concepts in chemistry leads to the assumption of learning for students that chemistry is difficult. This is consistent with observations of researchers for implementing Program Field Experience Integrated (PPLT) in SMA Negeri 1 Matauli Pandan Sibolga in class XI, the value of the chemical the average student is still far from the value of minimum completeness criteria (KKM) assigned schools where KKM for class XI 2.81 of an index is 4.00. From the observations of researchers, on average only 25% of students are able to follow and understand the lessons well. Based on interviews conducted by researchers obtained the fact that the chemistry was difficult because of the many concepts, formulas, and the learning are less interesting.

The fact are often found is a learning model that is often used by teachers is a conventional model. In this model, the teacher lecturing while students just sit down, take notes and listen to what is presented teacher. Sometimes teachers give students the opportunity to ask if there are things that not understood in the subject matter described. However this is not strong enough to stimulate the students in improving its activity following the learning process.

Student-centered teaching and learning is the recommended approach to modern day pedagogy especially in the Outcomes-based Education where the teachers served as the facilitator of learning activities rather than performing the traditional lecture method (Laguador, 2014). Based on current trends in education which point toward increased use of distance learning and research on the benefits of cooperative learning at all levels, this study investigated the effectiveness of specific cooperative learning (CL) strategies in discussion boards, a commonly used distance learning tool which fosters student engagement online. The results of the study will benefit instructors as well as students participating in distance learning, as they reflect on an improve teaching and learning practices in a virtual classroom (Kupczynski, 2012)

Cooperative learning model is a learning approach that focuses on the use of small groups to work together to maximize the learning conditions for achieving the goal. Cooperative learning is a teaching strategy that involves students working in collaboration to achieve common goals.

Cooperative learning model has several types with different steps include learning model STAD (Students Teams Achievement Division), NHT (Numbered Head Together) and TPS (Think Pair Share). Where all three of these methods are equally divide the students into groups of heterogeneous and students work together with the group, so that students can exchange information and learning experiences.

STAD is one of the simplest and most extensively researched forms of all cooperative learning techniques and it could be an effective instrument to begin with for teachers who are new to the cooperative learning technique (Micheal, 2012)

While the cooperative learning model NHT (Numbered Head Together) is a teaching and learning techniques developed by Spencer to engage students in studying the material covered in the lesson and check their understanding of the lesson content. NHT is a cooperative learning designed to meet students' interaction patterns and as an alternative to the traditional classroom structure (Trianto, 2009).

TPS is a cooperative learning that is designed to influence the pattern of student interaction and is an effective way to create an atmosphere variation pattern class discussion, with the assumption that all the recitation and discussion requires setting in the control of the class as a whole (Alpusari, 2013).

Implementation of the various types of cooperative learning model has been widely studied, one by Zuliah Isnaini Siregar (2015) with the title "*Perbedaan Hasil Belajar Kimia Siswa Menggunakan Model Pembelajaran Tipe TPS (Think Pair Share) Dengan NHT (Numbered Head Together) Pada Pokok Bahasan Sistem Koloid*" with an increase of 75% on TPS cooperative learning model and increased 45% on NHT cooperative learning model. Other research conducted by Sopan Nababan (2012) with the title "*Perbedaan Peningkatan Hasil Belajar Kimia Siswa Dengan Menggunakan Metode STAD dan NHT Berbasis Peta Konsep Pada Materi Pokok Hidrokarbon*" with an increase of 48% on STAD cooperative learning model and increased 53% on NHT cooperative learning model.

Character is something that has influence in the learning process. Aristotle, the Greek philosopher, stated that good character is a practice of correct behavior (Lickona, 1991: 50). Furthermore, Aristotle says that life in modern times tend to forget manners including self-orientation, such as self-control, generous attitude, and social sense. Character is a set of traits that define the figure of a person as an individual. Character determines whether someone in achieving the desire to use the correct way according to the environment and comply with the laws and rules of the group.

Based on descriptions above, researchers want to apply various types of cooperative learning model is not only on learning outcomes but also on the character of students, so researchers interested in conducted research with the title "**The**

## **Differences Of Student's Learning Outcomes And Student's Character Through Implementation Of Cooperative Learning Model In Salt Hydrolysis Topic"**

### **1.2 Problem Scope**

Based on the background of the problems that have been described, then the scope of the problem in this research is how the influence of various types of cooperative learning model for learning outcomes and students' character.

### **1.3 Problem Identification**

According to background above, researchers identified some problems as follows:

1. Teachers still using conventional model in teaching students
2. Students less interests to studying chemistry because the learning activity is bored
3. Students learning outcomes very low
4. Students less in interaction and pair work in learning process because the "teacher's centered" model
5. The innovative learning model required that could help students in learning process and activated students comprehension in learning chemistry, especially on Salt Hydrolysis Topic that will taught by cooperative learning model types STAD, TPS, and NHT.

### **1.4 Problem Formulation**

1. Is there any difference on students learning outcomes in hydrolysis topic between class taught by cooperative learning model types STAD, TPS, and NHT ?
2. How the students' character taught by cooperative learning model types STAD, TPS, and NHT?
3. How many the improvement percentage of students learning outcomes taught by cooperative learning model types STAD, TPS, and NHT?

### **1.5 Problem Limitation**

From the formulation of the problem that has been stated above, the researchers need to limit the issues in this study in order to research more directed and focused. The limitation problem in this research are:

1. The learning model used is cooperative model type STAD (Student Team Achievement Division), NHT (Number Head Together) and TPS (Think Pair Share).
2. The principal material which is defined on the subject of salt hydrolysis.
3. The character of the students during the learning process using the cooperative model.
4. The subjects were students of class XI even semester in high school N 11 TP 2015/2016.

### **1.6 Research Objectives**

1. To determine the difference on students learning outcomes in hydrolysis topic between class taught by cooperative learning model types STAD, TPS, and NHT
2. To determine the students character taught by cooperative learning model types STAD, TPS, and NHT
3. To determine the increase percentage of students learning outcomes taught by cooperative learning model types STAD, TPS, and NHT

### **1.7 Research Benefits**

The expected benefits of this research are:

1. For students: students will be helped in their learning because of the new models of learning so as to improve understanding of the material being taught and also cultivate a better character

2. For chemistry teacher: as consideration for the teacher to select appropriate learning models in the learning process and help teachers in an effort to find a model that is effective and efficient learning.
3. For collegers : as a comparison for the next researcher who will conduct research with the same problem.

### **1.8 Operational Definition**

The operational definition in this study are:

1. STAD cooperative learning model is a cooperative learning method for mixed ability grouping involving the recognition of team and responsibility for individual learning group members. Membership according to the level of achievement, gender, ethnicity and 4-5 people in one group.
2. The type of cooperative learning model NHT is a learning model that provides the opportunity for students to exchange ideas. This model consists of four steps: numbering, asking questions, thinking together and giving answers.
3. The type of cooperative learning model TPS as the name "Thinking", begins with the teacher questions or issues related to the subjects to be considered by learners. The next, "Pairing" the teacher asks students in pairs to discuss. "Sharing", the results of discussions with entire pair in the classroom.
4. The results of study are the abilities of a person after the end of the learning activity. Learning outcomes are classified into three domains: cognitive, affective, and psychomotor domains.
5. The character is a way of thinking and behaving that is characteristic of each individual to live and work, both within the family, community, nation and state. Individuals that good character is an individual who can make decisions and be ready accountable for each result of a decision he made.