CHAPTER I

INTRODUCTION

1.1 Background

As we know, education is one of important sector in the building of our country, it can be as an investation for a human in long term. Beside that, education is also one of the effort to develop all potency that have by all students through learning processing. That's why the learning process should be able to make the students potency for future of the students,due to the knowledge can be implemented as long as the student's life.

Nowadays, in teaching, especially in teaching chemistry topic faces many difficult to get the objective of the teaching. One of the problems is the satiation of student in learning if the teachers just explain in front of class and the students just sit on their own seat with different intellegence of the students one to each other. From the work Field experience (PPLT) in SMA Negeri 2 Kisaran observation, in learning chemistry topic, the students just listen without understanding the topic. Some of them who have high intelligence can understand the topic just by listening and reading their book, but some of the student who didn't know the topic just keeping silent because of some reason. The reasons are some of them didnt like the subject matter they felt bored to see the teacher just spoke in front of class, while the other reasons are being shy to ask to the teacher due to social reason, it can be they are being afraid if the other friend will know about their ignorance. While, the learning proces of the students in school is not only get the knowledge from the teacher, also through the interaction and learn with other student, so she can develop her thinking ability, expression and keep the social interraction with other, so that as the final result, they can have good academic achievement. (Anonymous, 2013)

Based on the observation in SMA Negeri 2 Tangerang which was done, it can be seen the result of the students learning outcome is higher than 70, which KKM of the school is 27 students 67.5 % shows the good affect from chemistry learning base on inquiry to the students understanding concept. there is the smallest percentage of

understanding the topic is 28 % because in discussion the amount of students who asked the question also who answered the question was still less and limited in students who have high intellegence and have high courage. The students finding information themselves, evaluating and critically analysing the information, Meeting at the Crossroads discussing it with one another, building structured arguments and drawing conclusions about the various topics under discussion. It used a constructivist approach, one of "learning as an active process rather than a result of transmission of knowledge from program to student" .(Ellis Ainslie, 2001) The learning process must be understood as something a learner does by activating already existent cognitive structures or by constructing new cognitive structures that accommodate new input. (Dooly Melinda, 2008)

Inquiry is a dynamic and emergent process that builds on student's natural curiosity. Inquiry-based learning is a process where students are involved in their learning, formulate questions, investigate widely and then build new understandings, meanings and knowledge. That knowledge is new to the students and may be used to answer a question, to develop a solution or to support a position or point of view. The knowledge is usually presented to others and may result in some sort of action.(Alberta, 2004). It can be seen from the observation in SMAN 1 Sleman, showed that by giving guided inquiry can increase the scientific knowledge of the students 50% and 70%. It comes before from 12.5 and 50%. So that, the learning process must be viewed as stimulus that can challege the students to do learning process. The role of the teacher is more placed as guidedor the leaning facilitator. Therefore, the students is more doing the learning process by themselves or making group discussion to each other to solve the problem with teachers guide.(sriyono, 1991).

The solution from the problem above is the condition of the student to make the shy and afraid student become active and want to ask and discuss to other student. This can be solved by making collaborative sounds in teaching and learning process with the strategy of teaching as like the reaserch title **" The Implementation of Inquiry Strategy based on Collaborative Towards the Student Achievement in Teaching Buffer solution"**

1.2. Identification of Problem

Based on the background above the writer identifies the problems as follows:.

1. In learning process, the students interaction between one to other students are passive and still low social.
2. The students need an active learning method to increase their ability in learning and increase their learning community.
3. The method which the teacher use to teaching still contrary with curriculum requirements to achieve the objective like the students active learning

1.3. Research Scope

This learning model that held is to increase the achievement of the students in learning Buffer solution. The achievement can be seen from the effectiveness of the inqury strategy based on collaborative by seeing their value increasing in studying Buffer solution. This research will be held in SMA Negeri 16 Medan that involved the students in second grade and will be taken two classes.

1.4. Prolem Limitation

The problem limitation in this research are :

1. Research will be done in SMA Negeri 16 Medan
2. The subject matter is buffer solution
3. Lack of the student brave to ask question to the teacher or the other student, so the implementation of guided inquiry strategy base on collaborative
4. The inquiry strategy that used is Guided Inquiry Learning type
5. Media is power point and quessionaire

6. Influenced is observed by student's achievement that be taught with guided inqury strategy based on collaborative in experiment class

1.5. **Problem Statement**

Based on the problem limitation, problem statement in this research are :

1. Is the student achievement in learning buffer solution with teaching by inquiry strategy base on collaborative higher than student achievement in learning buffer solution with direct instruction method
2. Is the cognitive aspect will be improved by implementation learning buffer solution with inquiry strategy base on collaborative

1.6.Research Objectives

The reasearch objective is to know the best teaching method on the teaching of buffer solution . Specific objectives of the study were :

1. To know the student achievement in learning buffer solution with inquiry strategy based on collaborative compare with student achievement in learning buffer solution with direct instruction method
2. To know the improvement of students cognitive aspect in learning buffer solution with inquiry strategy base on collaborative compare with the improvement of students cognitive aspect in learning buffer solution with direct instruction method
3. To know the Collaborative Learning improvement in learning Process

1.7.Research Benefit

The research benefits on this research are :

1. For student, it can increase the student achievement in learning and can increase the students brave to ask and to discuss to ther student, in other word, it can students social interraction to each other . this can

be affect to students achievement in learning especially in buffer solution.

2. This research can increase the experience and the knowledge of the students in learning Buffer solution.
3. For the teacher especially chemistry teacher, this strategy can be implemented in class to increase the learning quality especially in teaching buffer solution.

1.8. Operational Defenition

Collaborative learning is a situation in which two or more people learn or attempt to learn something together. COllaborative learning is based on the model that knowledge can be created within a population where members actively interact by sharing experiences and take on asymmetry roles. (http://en.wikipedia.org/wiki/Collaborative_learning)

Inquiry learning strategies (ILS) is a series of learning activities that emphasize the process of thinking critically and analysts to search and find their own answer to a problem that is questionable.

Learning is the person process to get some skills, ability, and attitude (Gredler,M.Bell.1991)

Direct instructional model is a learning model that emphasizes the mastery of concepts and / or changes in behavior with emphasis on deductive approach, with the following characteristics: (1) transformation and skills directly; (2) a specific learning goal-oriented; (3) learning materials that have been structured; (4) have a structured learning environment; and (5) structured by the teacher. (Sudrajad,2011)

Guided Inquiry (guided inquiry approach) is a method of learning Inquiry (inquiry) that is guided by the position of the teacher guiding students doing activities by providing initial questions and leads to a discussion (Belgin, 2009)