

CHAPTER I

INTRODUCTION

1.1. Background

Natural science is related with, how to find out about nature systematically so natural science is not only mastering knowledge in the form of facts, concepts, and principles but also a process of discovery. Educational science is expected to be a vehicle for learners to learn about themselves and the environment, as well as the prospect of further development in applying it in everyday life. The learning process emphasizes the provision of hands-on experience to develop competencies to explore and understand the natural world scientifically (Trianto, 2007).

Learning process is the heart or center from the process of formal education because through learning process occurs the transfer of knowledge from teachers to learners that contains various educational purposes (Purwanto, 2012). Therefore, the approach used in learning process should create a sense, from not knowing to know. One of the education problems in Indonesian is the weakness of learning process. In the learning process, learners are less supported to develop thinking skills. Learning process in classroom, children are less supported to develop thinking skills. The learning process in classroom is directing the student ability to memorize an information, students must be remember an information without being required to understand the information that remembers to relate it in daily life. The Selection of learning models should be in accordance with the material presented because different materials required different learning models in order to achieve the goal and maximum learning outcomes. The Selection of learning models is also influenced by the characteristics of learners (Assriyanto et al., 2014).

The discovery learning model is a method that assumes learners as subjects as well as learning objects that have the basic of ability to develop optimally in accordance with their capabilities (Hosnan in Tarigan, 2017).

Discovery Learning model is a model that more emphasis on direct experience of learners and prefer the process rather than the outcome study (Syah, 2008). In the learning discovery, learners should be able to be outside the environment which means learners should be able to solve a problem by using their own around them and utilize the information provided by the teacher. By studying this discovery, learners can build their own knowledge by experimenting and concluding from the experimental results. With this, learners will understand the problems at a higher level. The implementation of this Discovery Learning model such as teacher is giving stimulation to the students by proposing the core of problem, student is trying to solve by know the problem, hypothesis formulation, collecting and analyzing data, and make a conclusion (Joolingen et al, 1998).

The use of a learning model will be better if accompanied by learning media. Learning media can help learners improve understanding, present data with interesting and reliable, facilitate interpretation of data and mandate information (Arsyad, 2009). Media serve as a process of communicating information from the source (teacher) to the recipient (learners). While the learning process as an interaction between teachers with the environment, the media function can overcome communication barriers that may arise in the learning process (Fadliana, et al. 2013). In learning, there are various kinds of innovative learning media that can be used by teachers to attract students' attention in class, such as: animation, module, concept map, real laboratory, virtual laboratory, and others (Haryoko, 2009).

In addition to active and innovative learning models, the use of media also greatly helps learners to receive course material. One media that is often used is the power point. The Power Point is computer software for presentations developed by Microsoft. This application is used by the offices, educators,

learners, and health workers and trainers (Musyahid, 2008). Power point is a medium that is often used by teachers in the learning process. Power point can be used to indicate an object that looks abstract but it is real, so by this media student will not confuse when study an abstract material. Besides it, power point also has its own attractiveness that is the animation that can attract learners to learn chemistry.

Chemistry subjects are products of natural knowledge in the form of facts, theories, principles, and laws of scientific work processes. In implementation of chemistry learning should include three main aspects are product, process, and scientific attitude. Learners often find it difficult to understand chemistry because it is considerable. These difficulties can have an adverse effect on learners' understanding of various chemical concepts, because essentially the facts that abstract is explanation for concrete facts and concepts (Wasonawati et al. 2014). Chemical learning is directed toward a scientific approach where the skill of the science process is done through experimentation to prove a truth so based on the direct experience form the concepts, principles, and theories are underlying.

The most common problem with current chemistry learning is that most chemistry teachers have difficulty in applying an effective learning model in chemistry learning. During this time, learning activities are still done in a conventional model that requires students to listen to teachers lecture in front of the class, do the task and memorize the concept of chemistry. Currently the chemistry teacher is still difficult to find a model of learning in accordance with teaching materials. (Harahap, 2017).

The problem of learners in the learning of chemistry is the discussion of the broad chemistry in concept. The example is salt hydrolysis. The subject of salt hydrolysis is a material that considered difficult for learners. Learners are required to understand the formation of salts derived from acids and bases, learners are also required to be able to know the concept of calculating the pH of salt solutions. As explained, during the learning process the learner only hears the teacher's lecture, so that learners tend to be passive. Furthermore, based on observations and interviews with chemistry teachers in SMA Negeri 1 Tebing Tinggi, teachers are

still using conventional methods that are monotonous and less involving learners in learning so that students are less enthusiastic in the learning process.

This research is expected to improve the learning outcomes of learners, because using discovery learning able to maximize all of the learners ability to find something as systematically, critically, logically, analytically so they can formulate their own findings and improve the critical thinking skills. In addition, using the power point learners can easily understanding the problem and also build the reasoning of learners.

In accordance with the above background, it is necessary to conduct a research entitled **“The Influence of Discovery Learning Model using Power Point Media toward Students’ Learning Outcome on Salt Hydrolysis Topic”**

1.2. Problem Identification

Based on the background of the problem as described above, the problem can be identified as follows:

1. Application the learning model is not effective.
2. Using the learning media is lack
3. The low interest of learners on chemistry subjects
4. The low learning outcomes of the students on chemistry subjects.
5. Learners are less active in the learning process.

1.3. Problem Scope

Seeing the scope of problems that will be happen from this researcher and consider the limitations of time and other supporting facilities then this research is limited to:

1. The influence of discovery learning using power point media toward Students' learning outcome
2. The learning outcome will be researched on result study of salt hydrolysis on chemistry
3. The research conducted on senior high school at SMA Negeri 1 Tebing Tinggi on grade XI at academic year 2017/2018

1.4. Problem Formulation

Based on the background of problems that have been described above, the formulation of the problem in this research are:

1. How is the student learning outcomes taught by discovery learning model using power point media is higher than direct instruction in grade XI on salt hydrolysis topic in SMA Negeri 1 Tebing Tinggi?
2. How does the increase student learning outcome taught by discovery learning model using power point media is higher than direct instruction in grade XI on salt hydrolysis topic in SMA Negeri 1 Tebing Tinggi?

1.5. Research Objective

The purposes of this research are :

1. To find out the student learning outcomes taught by discovery learning model using power point media is higher than direct instruction in grade XI on salt hydrolysis topic in SMA Negeri 1 Tebing Tinggi.
2. To find out the increase of student learning outcome taught by discovery learning model using power point media is higher than direct instruction in grade XI on salt hydrolysis topic in SMA Negeri 1 Tebing Tinggi?

1.6. Research Benefit

From the research that will be done later, is expected to be useful as follows:

1. Theoretical benefits
 - a. To implementation discovery learning model in education and to provide knowledge by the influence of discovery learning model using media power point toward student learning outcome on salt hydrolysis Topic in Grade XI Students of SMA Negeri 1 Tebing Tinggi at academic year 2017/2018.
 - b. As reference material for future research.
 - c. As an input material for educational institutions, especially for chemistry

- d. teachers in an effort to improve learning outcomes of the learners.
- e. As a motivation for learners, students' skills, develop an attitude for learners, and improve chemistry learning outcomes.

2. Practical Benefits

- a. Giving the information about the influence of discovery learning model toward Student Learning Outcome on salt hydrolysis topic in Grade XI Students of SMA Negeri 1 Tebing Tinggi at academic year 2017/2018.
- b. Giving the information about the Use of Power Point Media toward Student Learning Outcome on Salt Hydrolysis Topic in Grade XI Students of SMA Negeri 1 Tebing Tinggi at academic year 2017/2018.

1.7 Operational Definition

1. Discovery Learning is learning that occurs partially the result of the students manipulate, create and transform the structure of such information so as to find new information. Discovery Learning can be defined as the learning that takes place when the student is not presented with subject matter in the final form, but rather than is required to organized it himself.
2. Power Point Media is the most application program for percentage because it have the facilities and advantages that provide ease in making an effective presentation, professional and interesting, seminars, and promotions.
3. Learning Outcomes is the form of preparation in shaping private individuals who always want to achieve the better results so that it will change the behavior and way of thinking toward better.
4. Salt Hydrolysis is the reaction of aqueous ions in solution with water. Based on the concept of hydrolysis, the salt ion that comes from weak acid and weak base react with water
5. Increase of student learning outcomes is the ability obtained by someone after going through the learning process in the form of increased knowledge or obtain the good value and shown by the students who affected the amount of effort that the students who are expected to be achieved as a result of learning