

CHAPTER I

INTRODUCTION

1.1. Background

Education is one of the important things to make good human resources. The quality of education in Indonesia is still low even though education has an important role in preparing human resources for the development of this nation. Indonesia is now conducting a variety of ways in order to realize an intelligent nation to increase the human resources. One of them is by changing the curriculum. Now the prevailing curriculum is the curriculum of 2013. According to Permendikbud No. 70 of 2013, the 2013 curriculum aims to prepare humans in Indonesia to have the ability to live as individuals and citizens who believe, productive, creative, innovative, and affective and able to contribute to the society, nation, the country, and the world civilization. (Made, 2010).

Method in the curriculum of 2013 is a scientific approach. A learning process that is designed so that learners are actively constructing concepts, laws or principles through the stages observed (to identify or find the problem), to formulate the problem, propose or formulate hypotheses, blunting the data with a variety of techniques, analyzed data, draw conclusions and communicate the concept, law or principle "discovered". The scientific method is a technique to formulate questions and answer them through observation and conducting experiments (Insan, 2012). Teachers can no longer apply the concept lectures, or known as conventional learning models in curriculum of 2013.

Conventional learning model is the method applied where the teachers dominate the teaching or learning activity. Rusmono argues that there are many teachers at various levels of primary and secondary education (general and vocational) manage learning activities in class by learning one direction between the teacher and the student, so that the interaction between students and teachers and students with a student does not take place effectively and efficiently in achieving the learning objectives set (Lia, 2015). Pupils are passive or not active, feel bored and even sleepy when it is in the classroom. The lecture model is not very effective when used in teaching and learning physics, especially physics for secondary school (high

school). In physics there are so many formulas and abstract things that can not be understood only by reading alone. It seems like the problems in SMA N 1 PANYABUNGAN.

The result of interview of teacher in SMA N 1 PANYABUNGAN, author get that the reason why physics was difficult to student because the student not interesting with the way of teacher learning in class. How can the student pay attention to the teacher if the teacher always talk away in teaching and learning process. The result of student in this school in physics was not good. In this school for physics the standard value is seventy five. From grade X on each class, only 20 % student that get of standard and the balance get under the standard value in physics. So the model of teaching and learning must change into model that attractive to the student. Inquiry training learning is one that suitable to this problem to make the teaching and learning process to be attractive.

Inquiry Training learning is a very effective learning model for teachers in delivering lessons and help students to think critically and actively. Teachers who use inquiry learning can produce students who have a high level of knowledge. (Liu, et al, 2010) Inquiry also can facilitate students in improving thinking ability (Rushton, et al, 2011). Inquiry-based learning, can improve scientific process skills and attitudes of students (Haris,2016). Inquiry-based learning is gaining increasing support in science education, with a growing number of educators becoming interested in teaching which involves projects or inquiry. That is in the process of learning students should be involved in it. Students are learning the constructor and teacher is the facilitator in science teaching. Bybee said that "Students should have experience with "real world" classroom by attending to theoretical and practical activities (Prasart,2014). In this case the student can look for the problem and resolve the issue through himself.

inquiry learning should include the basic abilities of conducting a scientific investigation as well as an understanding of how scientists do their work (kubicek on Alan, 2005). Inquiry-based learning is learning by scientific approach that emphasizes student activities to investigate, seek, and find answers to the problems that exist with confidence. Inquiry learning model is learning that requires students to solve problems through investigation activities that increase the skills and

knowledge independently (Vera,2016). That's why scientific method was relevant to inquiry training learning to improve the knowledge. (Pandey et al,2011) concluded that inquiry training model have statistically significant effect over conventional teaching method on academic achievement of students (Ali,2014). So inquiry training learning can give effect to student achievement which can be seen from the learning outcomes.

Learning inquiry will train students to express opinions and discover their own knowledge useful for solving problems. The use of models in an efficient and effective inquiry will reduce the dominance of teacher during the learning process, and the boredom of students receive lesson will reduced. (Jefri,2014). So to make students pay attention and teaching learning process be a student center needed not only model but be added a media, such as: power point, video, text and images along with other very assist teachers in teaching and learning process, so teaching and learning process become attractive. That's called a learning multimedia .

Multimedia is a mediator that make a teaching learning process become interesting and be fun. Mayor said that the material presented in verbal form, such as using printed text or spoken text and by pictures that the material is presented in pictorial form, such as using static graphics, including illustrations, graphs, diagrams, maps, or photos, or using dynamic graphics, including animation or video. (Peter,2002).Teachers used multimedia in teaching and learning process in order to achieve the learning achievement. Curriculum of 2013 has been applied scientific approach that is perfect if related with inquiry training models which refers to experiments conducted by the students themselves. It would also be very efficient at done if assisted with multimedia in the process so that teachers and students will get better results, faster and can provide them with a creative and easy to understand.

Based on this, the author aims to conduct research about the effect of multimedia based inquiry training learning model on student's achievement on topic elasticity in class x SMA N 1 Panyabungan academic year 2016/2017.

1.2 Problem Identification

Based on the background above, the problem of identification of this research are as follows:

- a. Study physics was suturing and boring.
- b. Low of student achievement for physics.
- c. Learning model still not variated that used by teacher.
- d. To dominance of the teacher in the learning process , so student do not have a chance to express their opinion.

1.3 Problem Limitation

In order to keep this research become more focused and directed, the researcher limit the problems as the following :

- a. Learning model used is inquiry training learning of on the experimental class and conventional learning on the control class.
- b. The material taught is elasticity.
- c. Conducted to determine the influence of multimedia based inquiry learning model on student learning outcomes.
- d. Learning outcomes that will be examined only on cognitive aspects.

1.4 Problem Formulation

The problem statement of this research are :

- a. Is the student achievement in the elasticity subject using multimedia based inquiry training learning model has influence than conventional learning?
- b. How does the student activities during the inquiry training learning model in the subject matter in elasticity of SMA N 1 Panyabungan year 2016/2017.

1.5 Research Objectives

The research objective is as follows:

- a. To know the Effect Multimedia Based Inquiry Training Learning Model on students achievement in the subject matter elasticity in Class X SMAN 1 Panyabungan year 2016/2017.
- b. To know the student learning activity using inquiry training learning model on the student achievement in the subject matter elasticity in Class X SMAN 1 Panyabungan year 2016/2017.

1.6 Research Benefits

1. For Students

- a. improving student learning outcomes in the subjects physics, especially the material elasticity.
- b. motivating students to engage in learning through inquiry training model.

2. For Teachers

- a. Opening think conception of teachers in developing teaching and learning model one uses inquiry training learning model.
- b. Feedback to teachers to measure the success of the implementation of the teaching and learning activities in the classroom.

3. For Schools

- a. Improving the quality of the school through learning outcomes student learning and teacher performance.
- b. As feedback to improve the effectiveness and efficiency of the learning activities.