

CHAPTER I INTRODUCTION

1.1 Background

School learning process is the interaction of teachers and students to learn the material that has been arranged in a curriculum. So that the learning process can be run directly by the well, a teacher must be intelligent and perceptive and plan, organize and design a learning process so that the learning goals achieved.

According to the curriculum that the Learning Science (physics) more emphasis on the provision of direct learning experience through the use and experience of the scientific process skills and attitudes (Depdiknas,2006: 194) the scientific attitude can be a mode to learn about themselves and the nature and prospects of further development in apply them in everyday life. One of the problems facing our education is the problem of lack of learning science, especially in the material of physics subjects.

Model of teaching is one the Model that used in conducting teacher student relationship at the time at study. Therefore, the role model of teaching as a tool for teaching and learning process to create the liveliness of learning process, Current development in Indonesia is directed to improving the quality of human resources. Human resources are of very much needed in the development of a nation, especially in the field of education. In the era of globalization, quality human resources will be the main focus so that a competent nation. Natural Sciences (IPA) relating to the natural way of finding out about systematically, so that science is not just the acquisition of knowledge in the form of facts, concepts or principles but also a process of discovery. As stated by the vehicle (in Trianto, 2008: 61) that: " Science is a systematic collection of structured knowledge, and in general use is limited to the phenomena of nature. The development is not only characterized by the presence of a collection of facts, but by the presence of the scientific method and scientific attitude ".

The process of formal classroom teaching and is very important to improve the ability to think, ability to cooperate, self-confidence, attitude and moral of each student, In the process of teaching and learning and class, something very important is the interaction between student and teachers. Teachers need to understand a lot about the material circumstance and conditions including situation of students. To understand the students teachers should know about the abilities and character of each student and the teacher must build the character of students in accordance with the character education.

Conventional learning used by physics teachers rarely engage students in working in groups. This resulted in a lack of interaction between students and teachers as well as students and students so that students who are less able and shy do not experience improvement in achievement, achievement even decreased. While the students are classified as smart and not shy getting smarter. This obviously makes students consider physics is boring lessons as well as lowering the character of students, especially in the classroom learning. Therefore, an increase in the intensity of group study is needed to improve the attitude, moral, mental ability to interact, as well as student achievement.

Physics (one field IPA) is a subject that requires students to understand, understand, and apply it in real life. So far, students tend to take the knowledge presented by the teacher, less bold idea or express their own opinions. This can hamper the ability to think students. Through The process of learning physics students favoring activities in the process of thinking and seek understanding in the object, analyze and construct the knowledge to form new knowledge in the individual. Active student learning will occur if the student is given the motivation and also facilities.

One of the subject taught in schools, especially school is physics. Physics is the study of natural phenomena. Therefore, physics in one of the lessons is quite interesting because it deals directly with natural phenomena and knowledge can be applied in everyday life.

But in fact physics is one of the lessons that have the lowest scores. This is caused by the large number of students who do not like physics because they think physics is a difficult subject to understand, especially when faced with complicated formulas and calculations. This fact is consistent with the observation made by research when implementing the integrated field experience program in SMAN 1Salak. From the above observation, the researchers concluded that students at SMAN 1Salak not interested in learning physics. And this will affect student outcomes in learning physics and character. The observation of three physics teachers when they teach in SMA 1 Salak, It was found that all the teachers using conventional learning physics to explain phenomena in physics class.

To solve the above problems, the research changed the conventional learning with cooperative learning model. Cooperative learning model consist of several kinds, one of which type of cooperative learning model investigation group is a model that does not require students to memorize fact and formulas, but the models the guide students to identify a topic, planning investigation in group, conduct investigation, make report and presented the result of research. Group cooperative learning model helps students investigate to understand clearly because the students will learn to their own and find answers to their team. And it will make the students have a good teamwork ability and can memorize lesson for a long time.

Based on the results of a questionnaire given to students of SMAN 1 Salak many students assume that physics is a difficult subject to understand because too many formulas, the boring and uninteresting, of 26, 18 of them said that physics is difficult and the rest like it. This is similar to the results of interviews conducted by researchers at teacher Susi (high school physics teacher 1 Salak). He said that the high school students 'learning outcomes in SMA 1 Salak there are problems that daily test results of students' physics is still far from the expected, average daily value is still below the KKM (60).

The cause of the low value of student learning outcomes in science learning (Physics) in school SMAN 1Salak include strategies used by teachers in the

learning process less varied. In lessons, teachers still use the conventional method where students just listen and note what is presented by the teacher after which they were given the task individually to solve the problems, as a result of students feel bored and less interested in these subjects, besides the ability cooperation students less and tend to be individual. When it is given continued, feared learning objectives cannot be achieved national,

Based on the above, the researcher conducted a study using " *The Effect Of Cooperative Learning Model Group Investigation (GI) On Student's Learning conceptual Academic knowledge In Dynamic Electricity In Class X Semester SMA Negeri 1 Salak 2014/2015*

1.2 Problems Identification

Based on the background described above, which is the identification of problems research are:

1. Physics learning process that is centered on the teacher.
2. The low student conceptual Academic knowledge
3. Learning process is still able to memorize concepts and formulas.
4. Learning physics do not involve students in developing the skills of process
5. Less interest of students because the teacher used variations learning strategies is conventional learning and still teacher centered

1.3 Problem Limitation

Based on the identification of the above problems, the authors restrict this issue are:

1. Sub topic that will be learn is Dynamic Electricity
2. The learning model used is the Cooperative Learning Model Type Group Investigation (GI)
3. Subject matter that will be given is Dynamic Electricity to student at grade X SMA

1.4 Problem Formulation

Based on the limitation problem, so the problem formulation are:

1. How the results of physical science process skill of students using conceptual Knowledge learning on the material Dynamic Electricity in class X SMAN 1 Salak?
2. How the results physical science process skill of students using Conventional Learning on the material Dynamic Electricity?
3. Is physical science process skill of students by using Cooperative learning than conventional in the subject matter Dynamic Electricity

1.5 Research Objective

There are some research objective items, namely:

1. To know students' learning outcomes by using cooperative learning model group of Investigation (GI) in Topic Dynamic Electricity at grade X SMAN 1 Salak Academic Year 2014/2015
2. To know students' learning outcomes by using conventional model in Topic Dynamic Electricity at
3. To analysis which one better use about outcome learning physics, cooperative learning model or Conventional model in topic Dynamic electricity

1.6 Benefits Of Research

1. To make the teacher understand about the type model and improve the models that use investigation group.
2. Instilling a student's ability to foster a scientific attitude to develop fundamental skills, so that the learning process students can understand the concepts learned.
3. For researchers, the results of the study can be used as information when plunging into the field.
4. For provide experience n reader in embed concept of physic.

5. As input for physics teachers in an effort to use the model of learning physics in an



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