

CHAPTER I INTRODUCTION

1.1. Background

Indonesia is one of countries that is growing. Government held development in various sectors for the nation toward more developed and advance. One of them in the social sectors, especially education. Education is one factor that plays an important role in the development of a nation. Development in the field of education is an effort to educate the nation and improve the quality of Human Resources (HR) Indonesia in realizing a fair and prosperous society both materially and spiritually. Education is a deliberate and well-planned effort to help improve the development of human potential for Indonesia to benefit the interests of his life as a personal being or as a member of society. Education is basically an effort to provide the knowledge, insight, skills and specific expertise to individuals in order to explore and develop their talents and personalities. "Science deals with how to find out about the nature systematically and not just a collection of knowledge in the form of facts, concepts, but also a process of discovery". (Depdiknas, 2006: 377). Physics became part of the study of natural phenomena (Science), therefore the study of physics must be displayed in the form of scientific products, the scientific process and scientific attitude. Based on these three things then in studying science, especially physics, students should be given the opportunity to prove the truth of the existing theories and given the opportunity to discover something new. Teaching physics educators not only convey the material conception, but also emphasizes the process and to foster a scientific attitude in students. The purpose of the provision of these subjects is to make the students understand the concepts and laws of physics they find in everyday life. Learners are also expected to be able to apply the concepts of physics in everyday life and using the way of thinking and scientific work in solving problems in everyday life.

The process of learning is an educational component. In the learning process there is an interaction between teachers and students as learners. Teachers have an important role during the lesson. The teacher's task is not only to transfer knowledge, does not make students as learning objects but as subjects of learning, so that students are not passive and can develop in accordance with the knowledge of the subject areas studied. Therefore, teachers must understand the material that will be delivered to students and can choose appropriate learning models to deliver the material. Physics Education is expected to provide experience directly. Physics Education should also be able to develop the power of reason in solving problems in everyday life to-day, because students need to be helped to develop a number of skills to enable them to explore and to understand the nature fully.

Physics is one branch of natural science which basically aims to study and give them symptoms or processes of nature and the nature and according to its application Wospakik. Physics as one of the disciplines is part of the science that aims to study the phenomena that relate to the material. Therefore, the nature of physics are same with the essence of science consists of scientific products, the scientific process, and scientific attitude. One of the characteristics of physics is to have objects that are real (real). The nature of this estate is one of the contributing factors that can help students learn physics. The success of teaching and learning activities are influenced by many factors that can be grouped into two: internal and external factors. Internal factors are factors originating from within the students themselves which includes a state of physical, intelligence, attitude, aptitude, interest and motivation of students. Sardiman A.M (1992: 75) states that "the overall motivation to learn is the driving force in the student who raises learning activities and ensure continuity of learning in order to achieve objectives". The process of learning, motivation plays an important role in delivering the passion and pleasure. "The motivation to learn has an important role in growing passion, feel happy and eager to learn" (NanikMulyani: 2006). Student motivation determines the level of success of a student. External factors

are factors that come from outside the student that includes the overall family situation, methods of teaching.

Various patterns approaches, models / methods and a variety of learning media eg discussions, experiments, demonstrations and others can increase the ability of affective and cognitive abilities of students. Learning is not only done by monotonous lecture in front of the class or learn individually and just sticking to the textbooks, since students will feel tired and forget. Using less interactive media learning, can also lead to boredom and forgetfulness to the students. Alternative learning models to reduce boredom is a cooperative learning model because it can stimulate cooperation and mutual help in learning so that student performance can be increased. Cooperative Learning is derived from the cooperative, which means doing something together to help each other as a group or a team. Learning Cooperative learning refers to a wide variety of teaching methods in which students work in small groups to help one another in learning the subject matter. Eggen defines that cooperative learning is a teaching strategy used by students to help one another in one group to learn something while Slavin explained that the cooperative learning are extensive, on the theory that students will more easily find and understand concepts that are difficult if they are able to discuss the concept with his friend. Of the various explanations of cooperative learning can be concluded that learning is a learning model for each group have a member heterogeneous groups. Cooperative learning is a model that group members have individual goal when the group has managed to achieve the goals of individuals in the group, strongly influenced the activity of the group members in doing anything for the group's success. In cooperative learning there are three learning objectives: academic achievement, acceptance of diverse opinion and social skills development.

One of the characteristics of physics is to have objects that are real (real). The nature of this estate is one of the contributing factors that can help students learn physics. Reality as experienced researchers currently undergoing Integrated Field Experience Program (PPLT) at SMAN 1 Sidikalang and I teach

in the classroom and ask students what the most difficult subjects? then the majority of students responded that physics was very difficult and intimidating for students is evident from every teacher of physics that goes there is one student who rarely entered the class in the eyes of the lesson, and ask the student proficiency level and the student gives an answer that physics is very saturated learn because so many derivative formulas taught and a physics lesson very hard so that students are less interested and motivated to learn. Providing motivation to learn less to students so that they can affect student achievement. Students at SMAN 1 Sidikalang assume that physics is only using model lecture course that students center and focus on textbooks alone and less wear models / methods and instructional media to motivate students to feel bored because the learning process is monotonous and therefore can not stimulate cooperation good mutual aid consequently did not increase student achievement. Another study mentions the advantages of cooperative learning that students in enhancing the positive attitude that leads to the achievement of learning cooperative learning strategy promoted achievement and productivity better than the conventional lecture method "(Francis, 2009). So especially STAD cooperative learning can help students in a positive process of cooperation among peers so that an understanding of the material will be easier when compared with conventional techniques as it can lead to motivation to study hard. The model of cooperative learning is the type of TGT (Teams Games Tournament). TGT mode is done by a group discussion followed by a tournament or match to spur cooperation among group members so that student performance can be increased. According Mistikaroh 2007 in his research in Ma "wise Batu Malang on the subject of class X Straight Motion concluded that" cooperative learning TGT model can increase interest and student achievement in physics ". Sub subjects Kirchoff's Law that had been considered difficult by most high school students in class X because it would be easier if presented with a model of cooperative learning. "These models excel in helping students to understand the concepts more difficult" (SugengHandayani. 2006) so hopefully with learning cooperative model can increase student achievement. Based on these ideas, research will be conducted to examine whether there is an

influence learning cooperative model Teams Games Tournament (TGT) and Student Teams Achievement Division (STAD) in terms of student motivation on cognitive abilities of students in the subjects of physics, so the researchers propose research title: **"The Comparing of Learning Outcomes by using Cooperative Learning Model STAD (Students Teams Achievements Divisions) with TGT (Teams Games Tournaments) on the Static Fluid Topics Semester II Class XI SMA N 1 Adiankotingi A.Y. 2015/2016**

1.1.1. Identification of Problems

The identification of the problem is as follows:

1. Students assume that the physics is very difficult and monotonous
2. The process of learning physics that are centered on the teacher alone
3. Low student learning outcomes

1.1.2. Limitation of the Problem

The restrictions on the problem to the researcher pointed out

1. Learning physics research using cooperative learning model Teams Games Tournament (TGT) and Student Teams Achievement Division (STAD).
2. The learning model used STAD and TGT on the subject matter is taken from static Fluid sub subject for high school students of class X the second semester.
3. The learning result obtained by the students of class XI SMA Negeri 1Adiakonting

1.1.3. Formulation of the Problem

The formulation of the problem that the authors propose the following:

1. How can learning outcomes students by using Cooperative Learning Model STAD(Students Teams Achievements)

2. How can learning outcomes students by using Cooperative Learning Model TGT (Teams Groups Tournaments)
3. Learning Model STAD (Students Teams Achievements Division) greater than Learning Model TGT(Teams Groups Tournaments)

1.1.4. Research purposes

The purpose of this study is as follows:

1. To know learning outcomes students by using Cooperative Learning Model STAD(Students Teams Achievements)
2. To know learning students by using Cooperative Learning Model TGT (Teams Groups Tournaments)
3. Comparing Learning outcomes Cooperative Learning Model STAD(Students Achievement Division)with Cooperative Learning Model TGT (Teams Groups Tournaments)

1.1.5. Benefits of research

The benefits of this research is useful for:

1. Giving feedback to teachers and prospective teachers to choose appropriate approaches and methods in the delivery of material.
2. Giving feedback to teachers, prospective teachers and students to pay attention to internal factors of students, especially students' motivation to study harder as the ability to support so as to improve student achievement.
3. Giving feedback to teachers and prospective teachers who conduct further research related to this research within the scope of a broader and deeper discussion

1.1.6. Operational Definitions

1. TGT learning model STAD have similarities that students will sit together in groups of four or five people or including heterogeneous group members to master the material presented by the teacher.
2. Model TGT is to motivate the students in order to support each other and help each other in mastering the skills taught by the teacher while the TGT has a purpose different ideas with STAD namely: using academic and student tournaments compete as representatives of the team to win the tournament.
3. Learning result: Have equation in terms of learning the same scheme, namely: presentation classes, group activities, group recognition and awards groups to improve learning.
4. STAD and TGT namely in terms of a class presentation on Learning Model STAD Using Learning model Directly using discussions led by teachers So students will realize that they have to actually pay full attention during the presentation because it will greatly help them quiz and quiz score they determine their team scores while the percentage of audiovisual TGT learning model that focuses on the team, games, and tournaments only.
5. Learning: A process of training and experience that causes a person to experience a change in him in the form of behavior, knowledge, skills, and aspects on him.