

CHAPTER I

INTRODUCTION

1.1 Background of Study

Education being one of important things needed by all people in the world. Each person must know that education has impacts in every aspects of human life. As Estep, Anthony, and Allison stated “Education is obligatory upon the Christian community. Put quite simply, education is not an option; it is a necessity” (2008, p. 49). Berkhof and Van Til said “Christian education must show that Christian education is involved in the covenant, that the covenant is involved in creation, that creation is involved in the idea of God, and that without God man’s life and experience would be entirely meaningless” (1990, p. 45). Christian teacher should teach with this thought in their mind and they should be careful with what they teach since they “shape young people’s thinking, attitudes, and behavior during the most formative period of their lives” (Gangel and Hendricks, 1998, p. 246).

As the researcher did the internship in one of high school at Cikarang, the researcher observed and taught grade 10 Social Class. Then the researcher found out that most of the students have affective and cognitive problems (see reflection journals at appendix D-1). Van Brummelen said that “God calls teachers to help students develop the insight, abilities, and dispositions necessary to serve God and His Kingdom in all aspects of their lives in society” (2002, p. 8). Therefore, it is

one of the researcher's responsibilities to help students to overcome the problem that they have in the class.

God created human to be like Him and to do His work. As Adam try to be God rather than be like Him, it broke the relation between human and God. However, God acted to redeem His creations by sent His Son to the earth and pay for human sin. Therefore, once again, human can do what God called them to do and be what they were created to be. Now, we are waiting for His second coming. In this meantime, "we labor on as teachers, seeking to fulfill our task as God's image bearers in the power of the Holy Spirit" (Graham, 2009, p. 32). Teachers do their task and by doing that teachers help students to fulfill Creation Mandate, which is "to develop the possibilities of His creation, to fulfill its intended function" (Van Brummelen, 2009, p. 75). In doing their task, each teacher must realize that they need God's power, patience, and faithful perseverance in order to reach the purpose (Pratt, 2000, p. 94).

Van Brummelen mentioned four types of learning that enable students to participate in the society, those are *learning-that*: intellectual, cognitive content, *learning-how*: skill and abilities, *learning-why*: beliefs, values, and dispositions, *learning-with*: interpersonal relationships, collaboration and empathy (2009). In school, those types of learning can be seen in three aspects assessed by teacher which are affective, psychomotor, and cognitive aspect. Most students can't be perfect in all those three aspects. Every teacher has his/her own standard or minimum point for those three aspects. Teachers expect that all students achieve the standard of each aspect and they exceed in the aspect(s) they mastered in. As

what Santrock said that when a teacher teaches a class, he/she will have children with a range of abilities and skills (2011, p. 33).

The researcher did observation in a class that would be the subject of this research and the researcher found out that affective problem not always happen in every meeting. After the students got some treatment, they will follow all the instruction, but it will not happen for long period. Then the researcher did some observation again and see their score at previous chapters. The previous chapters are absolute value of equation and inequality, and rational and irrational inequality. The researcher concluded that, besides affective problem, this class also has cognitive problem. Since affective problem is not constant in every meeting therefore the researcher took cognitive problem as main problem in this research.

After some experience of teaching, the researcher realize that some students of grade 10 Social Class did not really understand with the material if teacher deliver the material directly. They prefer work cooperatively with their friends to learn the material. Slavin said that cooperative learning increase student achievement (2010, p. 41). Consequently, in this research, the researcher used one of cooperative learning method called STAD (Student Team Achievement Division) to improve students' cognitive achievement. The steps of STAD are explaining the material, group discussion, individual quiz, and team recognition. Through STAD method, the researcher can facilitate students to work cooperatively but the researcher can see students work individually. Even though there are other teaching methods that have similar purposes e.g. TGT (Team Game Tournament). But, in STAD method, students are given same treatment and by doing it, the researcher can know the ability of each student in that class.

Eventually, the researcher decided to take cognitive problem of Grade 10 Social Class at SMA ABC. In STAD, the students will divide into groups and the researcher took six students as subjects of the research.

1.2 Research Questions

1. Does the implementation of STAD (Student Team Achievement Division) method can increase grade X students' cognitive achievement in this school?
2. How the implementation of STAD (Student Team Achievement Division) method can increase grade X students' cognitive achievement in this school?

1.3 Purposes of The Study

1. To know does the implementation of STAD (Student Team Achievement Division) method can increase grade X students' cognitive achievement in this school.
2. To know how the implementation of STAD (Student Team Achievement Division) method can increase grade X students' cognitive achievement in this school.

1.4 Benefits of The Study

The benefits of this research are,

1.4.1 For Other Mathematics Teachers

1. This research can be a reference for mathematics teachers to improve student's cognitive achievement in mathematics subject.
2. This research can help mathematics teachers to know the implementation of STAD method to improve student's cognitive achievement in senior grade especially in social class.

3. This research can help other teachers to know the strengths and weaknesses of STAD method, so it will be their consideration when they are going to apply this method.

1.4.2 For Students

1. Through this research, students know whether the implementation of STAD (Student Team Achievement Division) method can increase their cognitive achievement or not.

1.4.3 For The Researcher

1. This research helps researcher to know does the implementation of STAD (Student Team Achievement Division) method can increase students' cognitive achievement.

2. This research helps researcher to know how does STAD (Student Team Achievement Division) method can increase students' cognitive achievement.

1.5 Definition of Terms

There are some terms those are used in this research, as follow:

1.5.1 Student' Cognitive Achievement

Cognitive achievement is information about students' performance in achieving the learning objectives that have been set for its subject (Siregar & Nara, 2010). The researcher is going to know does a treatment can improve students' cognitive achievement for six students of grade 10 Social Class in linear system with three variables topic. Since the subjects are grade 10, the researcher used cognitive domain from Bloom's taxonomy which are C2 (Understanding), C3 (Applying), C4 (Analyzing) as the indicators for cognitive achievement.

1.5.2 STAD (Student Team Achievement Division)

STAD method is one of cooperative learning methods developed by Robert E. Slavin. Slavin (2010) mentioned some characteristics of STAD method in his book. Those characteristics are: usually in STAD method, each group consist of 4-5 students; Each group must be heterogenous, the gender, race, ethnic, cognitive level, etc. are divided equally in all group. Slavin also explained that STAD method has five main components. Those are class presentation, team, quiz, individual score improvement, and team recognition.

