

CHAPTER I

INTRODUCTION

1.1 Background

In the beginning, God created man as a resemblance of his image. As God's resemblance, man also received God's traits. According to Knight (2006, p. 204), one of the traits is rationality or way of thinking. Even though man was created by God, with the freewill that man had, he chose to fall into sin. However, Calvin says that "a residue of the image continued to exist in humanity after the Fall, some sparks still gleam in the degenerate nature." It is true that humans are still able to think and act in their life, but all those things are no longer directing them to God but instead lead humans to evil intentions. Human's thoughts and actions are no longer holy as God originally created.

One of the ways to redeem human's way of thinking is by creating a good and right institution that is based on God's standard of truth. Education is one of the institutions that God uses to redeem human's rationality. As what Laska, quoted by Knight (2006, p. 10) said that education is "the deliberate attempt by learner or by someone else to *control (or guide, or direct, or influence, or manage)* a learning situation in order to bring about the attainment of a desired *learning outcomes (goal)*." When Christian education is set, it is automatically helping the students to achieve the expectations or goal from God. "The overall aim of Christian education is to help and to guide the students to be responsible and responsive disciples of Jesus Christ." (Van Brummelen, 2009, p. 14) The

teacher, as one of the agents that God uses, is expected to be able to embody her role in Christian education.

When a teacher is able to carry out their duties properly and simultaneously pursue the purpose of Christian education, then the ideal of Christian education will be created. In fact, based on the observation, the ideal of Christian education was not happening. The teacher was not able to perform good in embodying her role. One of the problems was occurred in mathematics class where the teacher was not able to deliver the lesson well that caused the students to fail in achieving the cognitive standard. During personal observation, the researcher found that not all the students were able to meet the expectations. There were some factors that have been influencing the students to fail. Those factors included lack of guided practices that were given to the students, the variety of prior knowledge of the students, the students' capability in processing the knowledge that delivered, and the lack of variety of teaching methods done by the teacher. The students needed a way to support and facilitate them to pass the standard in order to meet the expectation.

In order to help the students achieve that expectation, the teacher needs to help the students by guiding, teaching, and setting up the standard for the students to meet the expectation. In this case the researcher is focusing on the students' cognitive achievements. The students are expected to pass the standard that has been set in their grade level in the form of four scale (1 to 4) rubric. The students need to pass the standard if they want to upgrade to the next level or meeting expectation.

The researcher had observed grade 2.3 that consisted of seventeen students. The students at that time were learning about multiplication where they need to be able to solve multiplication problems using several strategies that were given to them. From those seventeen students, there were 2 students who got “Excellent”, 1 student got “Good”, 6 students got “Fair”, 7 students got “Poor”, and 1 student got “Very Poor”. The students were expected to reach at least competent in the study of mathematics in order to upgrade. In fact, the result came out differently than the expectation and this indicated that the students needed help in order to pass the expectation.

In order to help the students to meet the expectation, the researcher used the peer tutoring method to help the students to learn better. “Peer tutoring is an instructional method in which one child tutors another in material on which the tutor is an “expert” and the tutee is a “novice”, however, multiple definitions of peer tutoring exist” (Gordon, 2005, p. 1). Peer tutoring could help the students to have a new situation of learning where each of them could take a part in learning activities. Eggen and Kauchak (2007) agreed that social interaction is an essential element in learning. By using the peer tutoring method, the students would have an opportunity to engage in social interaction with another and learning could be way more interesting for the students. Stonks quoted by Knight (2006) said that “the major task of Christian schools is to help students unwrap their God-given gifts so that they can find their place in service to other fellow beings.” Peer tutoring can be a realization to the statement above by helping each other to learn better and of course if the students learn better it can lead to a result of better achievement too.

Throughout this research, the researcher tried to see the implementation of peer tutoring improves students' cognitive achievement. When the implementation of peer tutor method is successful to improve students' cognitive achievement, it indicates that the teacher (the researcher) was able to embody her role in education correctly.

1.2 Statement of the Problems

- 1) Can the peer tutoring method improve grade 2 students' cognitive achievement in the subject of Mathematics?
- 2) How can the peer tutoring method improve the grade 2 students' cognitive achievement in the subject of Mathematics?

1.3 Purposes of the Study

The purposes of this study are:

- 1) To find out whether peer tutoring can improve grade 2 students' cognitive achievement in the subject of Mathematics (multiplication).
- 2) To find out how peer tutoring can improve the grade 2 students' cognitive achievement in the subject of Mathematics (multiplication).

1.4 Benefits of the Study

Benefits for the teachers:

- 1) The teacher could help the students in the area of cognitive achievement especially in the field of Mathematics by applying appropriate method, particularly peer tutoring methods.
- 2) The teacher could practice one more method particularly peer tutoring, to use in helping the students to achieve the cognitive standards.

Benefits for the school:

- 1) The school could use the result of research as a resourceful input for the school in order to develop better learning method in the field of Mathematics while applying the Cambridge curriculum.

Benefits for the researcher:

- 1) The researcher could develop his/her teaching skill by using peer tutoring method in his/her teaching process in the future.
- 2) The result of this research can be useful resources for the researcher to conduct further study in the future.

1.5 Definition of Terms

1.5.1 Peer Tutoring

Peer tutoring is an activity where there is a group which consists of more able student(s) who will help the less able student(s), they are to learn working together to give and take the knowledge which is in accordance with the existing curriculum with the guide of a professional teacher.

Peer tutoring could be done by implementing three stages, the three stages are including: *Planning stage*, *Implementation stage*, and *Evaluation stage*. These stages are the procedure that has to be done in implementing peer tutoring.

1.5.2 Students' Cognitive Achievement

Students' cognitive achievement is the change, development, and accomplishment in thinking skills such as remembering, understanding, solving problems, some other things that the students attain after having to experience learning process. The outcome could be a form or numbers, scores, or grades, as the result of the learning goals.

The indicators measured for students' cognitive achievement are taken based on Bloom's Taxonomy cognitive domain, which include:

1. **Remembering** (C1), as to exhibit memory of previously learned materials by recalling terms, facts, basic concepts and answers.
2. **Understanding** (C2), which demonstrating, understanding of facts and ideas by organizing, interpreting, giving descriptions, and stating main ideas.
3. **Applying** (C3), to solve problems to given situations by applying acquired knowledge, facts, techniques, and rules.

