CHAPTER I

INTRODUCTION

1.1 Background

The purpose of education according to Hendrick (1991, p. 13) is "to foster competence in all aspects of life, curriculum should provide opportunities for total learning which the best accomplished is by considering the five aspects of the child's personality (the physical, emotional, social, creative, and cognitive selves) when planning curriculum". Van Brummelen (2009) stated in his book that teacher should consciously strive to forge the classroom into a learning community where students learn to accept and use their abilities. Thus, teacher needs to create effective learning environment for the students, to cover five aspects as previously mentioned.

An effective environment of the classroom show how a well-managed classroom looks like. Wong & Wong (2009, p. 84) stated in their book that "in an effective classroom there is structure that provides for conducive learning environment (the students are working; they are paying attention; they are cooperative and respectful to one another; they exhibit self-discipline and remain on task)". Wong & Wong (2009) also listed four characteristics of well-managed classroom: 1) Students are involved with their work, 2) Students know what is expected of them and are generally successful, 3) Relatively little wasted time, confusion, or disruption, 4) Work-oriented climate of the classroom but relaxed and pleasant.

Those four characteristics cannot be separated from students' engagement during the learning process. Student engagement is one of the keys to create a well-

managed classroom. Student engagement should be applied in all lessons, including mathematics. Mathematics is one of essential subject at school and most students consider it hard. Mathematics has a lot of concept that is hard for students to understand. However, Haycock (1993, p. 98) stated in his book that "the understanding of mathematical concepts adds to our understanding or expressions in other areas of life". This shows that in Mathematics, students are required to be able to express their understanding of the mathematical concept in daily life. The learning process in Math lesson should not only focus on explaining the concept, but also on how the students shape their skills and relate it to the real-world. However, this is hard for the teacher in order to help the students connect from something abstract (theory and concept) into real (application in daily life). Therefore, students are hard to engage during math lesson.

Based on the observation done by the researcher in grade two at ABC Primary School, it was found that grade two homeroom teacher in ABC School implement Guided Math during her mathematic lesson. "Guided Math is an interactive space where children are doing the math with each other, by themselves, and with the teacher. The teacher main role is to watch, observe, coach, and assess." (Newton, 2013, p. 7). During the observation, the researcher found that the process of Guided Math that is done by teacher in the classroom provide chances for students to learn not just with the teacher, but also with other (their friends or people in school environment). As students learn with their friends and try to learn with others in any kind of activities, these things indirectly encourage students to have initiative to engage more actively in the lesson. The chance for students to learn with others,

or even by themselves instead of just learning with the teacher also help them to build their understanding of the lesson and shape the skills that they have.

The activities designed by the teacher in Guided Math are varied based on the topic. The topics are able to cover students' different learning styles and through this various kind of activities, it shows that students are engaged more deeply and it can keep students on track during the lesson. As students engage, they become more focused and get more excited with the lesson. In other side, because the teacher designed the activities creatively, students unconsciously learn about the content. They are also able to find the application in daily life, and this ability shapes their math skills.

According to all of the explanation, Van Brummelen (2009, p. 76) mentions in his book that "knowledge in biblical sense reveals the praiseworthy deeds of the Lord as well as God's way of righteousness." He added that knowledge is more than just telling the facts and concepts, but it involves the whole being and aspects of our lives (Van Brummelen, 2009). From statement previously mentioned, it clearly shows that in Christian education, Scripture has emphasized that knowledge does not only talk about intellectual, but it should reveal God's truth in life. Therefore, Christian curriculum orientation fosters knowledge that, by God's grace, leads students to active service.

Aligned to that, Knight (2006, p. 210) stated that

> "Students, in Christian perspective, may be seen as children of God which each is a repository of God's image and one for whom Christ died. Each one, therefore, has infinite and eternal possibilities. The worth of each individual student can only be assessed in terms of the price paid for his or her restoration at the Cross of Calvary."

Looking at this statement, it is clear that student as God's creation, created in His likeness, they were made for a purpose followed by responsibility. The responsibility of students is to use their knowledge to reveal God's truth in their life. However, Palmer (1993) in his book reported that people do not learn best by memorizing facts, but through interacting with it since reality is communal. Therefore, this can be embodied through daily practice of active participation during daily teaching and learning process.

Palmer (1993, p. xvii) added that "In the practical disciplines, this may mean working with materials, creating artifacts, and solving problems." This leads to how teacher create a learning process that in the end it will help students in order to reveal the truth of God. Thus, Palmer (1993, p. xvii) stated that "good teachers bring students into living communion with the subject they teach also bring them into community with themselves and with each other-not simply for the sake of warm feelings, but to do the difficult things that teaching and learning require."

In Christian education Jesus and His teaching is the perfect role model of teaching and learning process in the classroom. Gangel & Hendricks (1988, p. 27) state that "Jesus' teaching was engaging". Moreover, they added that "He (Jesus) engaged people by presenting a problem by asking an appropriate question, by using repetition, by telling a story or simply by maintaining silence" (Gangel & Hendricks, 1988, p. 27). It can be seen in the Bible where during His teaching, Jesus did not merely deliver His teaching directly, but He used parable to direct His disciples to engage to His teaching.

1.2 Research Question

a. How is the implementation of Guided Math in grade two ABC school classroom?

b. How does Guided Math help in developing grade two ABC school student engagement?

1.3 Purpose of the study

The purpose of this research is:

a. To know the implementation of Guided Math in grade two students ABC school.

b. To know how the process of Guided Math help grade two students ABC school in developing their engagement in mathematic lesson.

1.4 Significance of the study

This research has significance:

1.4.1 For the students

- This research help the students to know the benefits of learning mathematics through Guided Math
- This research also helps the students to be more engaged in mathematic lesson.

1.4.2 For the teacher

This research gives teacher an opportunity to evaluate the implementation of Guided Math.

1.4.3 For the school

The school can learn more about the research, and use the research as recommendation given by the researcher, to improve the quality of education in that school.

1.4.4 For the researcher

This research give the researcher an opportunity to evaluate the implementation of Guided Math

1.5 Definition of terms

1.5.1 Guided Math

Guided Math is an interactive space where children are doing the math with each other, by themselves, and with the teacher. The teacher main role is to watch, observe, coach, and assess (Newton, 2013, p. 7).

1.5.2 Student Engagement

According to The National Survey on Student Engagement (NSSE) in Barkley (2010, p. 4), student engagement is student participate in activities that represent educational practices in a variety of activities and instruction both in and out of the classroom.