CHAPTER 1

INTRODUCTION

1.1. Biblical perspective on teaching

Van Dyk (1997, p. 37) believed that, "Discipleship is what life-and teaching Christianly is all about." Therefore, he said, "schools are for equipping students to function as knowledgeable and competent disciples of the Lord" (ibid, p. 53). I agree that discipleship should be the goal of Christian teaching, thus, it needs to be reflected through classroom practices.

In teaching for discipleship, Christian teachers could start by having the right perspective about themselves as well as their students. According to Van Brummelen (1998, p. 40), "Christian teachers are knowledgeable stewards of God's gifts within themselves and of those of the students God entrusts to them." As good stewards, Christian teachers are responsible for using their gifts of teaching in such a way that they may help their students learn and develop to their maximum potential.

Hence, the way teachers view their children is neither as "*blank slates* on which adults write knowledge", nor "piggy banks into which we deposit facts and concepts" (Van Brummelen, 1998, p. 93). Rather, children are, "gifted, experienced, contributing creatures of God" (Van Dyk, 1997, p. 53). It means they have the capacity to learn and grow in knowledge and understanding, thus, they are responsible for their own learning.

In the light of the perspectives above, I realize that it is important to select an appropriate instructional strategy, as well as to create a learning environment which helps students to be responsible for their learning, so that they may develop

their God-given potential to its maximum capacity. Jesus, The Master Teacher, had given various examples of involving his disciples in such a way that they may be responsible for their own learning. For instance, He used parables when teaching about The Kingdom of Heaven so that his disciples might think about the meaning. Following Jesus' example of teaching, helping students to be responsible for their learning by getting involved in the activity was something I tried to do when I taught mathematics to grade 8 students in my internship program.

1.2. Background of school and students:

I would like to begin with the description of the school where I did my internship program. Located in the city of Makassar, this private Christian school is well-known as a good place to learn. Led by a vision of true knowledge, faith in Christ, and godly character, it strives to provide a holistic education with an integrated Biblical worldview for its students. In light of such a vision, this school attempts to equip its students through various learning opportunities as well as a supportive learning environment. Students' need of good quality education is facilitated through different kinds of subject matter and extracurricular activities they might choose. Also, the students are well supported by high standard facilities, such as air-conditioned classrooms. However, the good quality education offered by this school is expensive. Thus, most students come from a high socio-economic background.

I went through an internship program, as part of my teacher education course requirement, at this school. Being a student-teacher, I was given an opportunity to practice some of my teaching skills in math under the supervision a

senior math department teacher named Ms. Jane (**a pseudonym**). (The term ***"mentor"*** will refer to Ms. Jane).

Ms. Jane was assigned by the school to teach math for grade 7, 8, 9, and 12. After a three-week observation period, I was then entrusted by my mentor to take over grade 8 math class, consisting of 6 forty-five minute sessions altogether each week. Grade 8 math students are divided into three different levels: basic, intermediate, and advanced. The writer taught intermediate-level math class of 22 students combined from 8A, 8B, 8C, and 8D. The majority of the students are of Chinese descent.

While I was both watching and teaching, I noticed some general attitudes in learning mathematics that they shared in common:

First, most students seemed to be result-oriented. They considered good grades as more important than understanding and personal growth in knowledge and skills. When learning mathematics, these students were more interested in getting the right answer rather than practicing their skills. Thus, they rarely showed active involvement in class.

Second, in terms of learning attitude, most students at this grade level were not yet self-directed. Therefore, the teacher had a significant role in directing them to achieve learning objectives.

Third, they seemed to learn more effectively by doing. Thus, when given attractive stimulus, they might respond positively and thus, become actively involved in the lesson.

I realized that the kind of learning attitudes that were demonstrated by these students as they learned mathematics was a problem. Identification of this

problem was a **critical incident** which led me to design a learning game named "Supermarket Maths." The main purpose of the learning game was to "provide a motivating context when learning math" (Santrock, 2006, p. 386), so that students would become involved in the lesson and experience meaningful learning.

1.3. Statement of Problem

1) How can I enhance students' interest to learn mathematics?
2) What are some benefits of implementing a learning game in a mathematics lesson?
3) What are some limitations of implementing a learning game in a mathematics lesson?

1.4. The purpose of study

1) To understand some principles of instructional strategy which could enhance students' interest in learning mathematics.
2) To discover some advantages of using a learning game.
3) To be aware of the limitations of using a learning game.

1.5. The benefit of study

1) This study helps the writer increase her own understanding of principles of an effective instructional strategy in teaching mathematics.
2) By doing the literature review, the writer learns to examine and evaluate her own teaching, in particular the strengths and weaknesses of the learning game that she designed.
3) The result of this study provides an option for other math teachers to adapt the learning game as a teaching strategy in their own classrooms.

4) Lastly, the writer believes that this study will help students change their perspective about learning mathematics.

1.6. Definition of terms:

1) Linear Equation: “an equation in one or more variables where each term's degree is not more than one” (Joyce, 1996).

2) Simultaneous Linear Equation: a system of two linear equations which has the same value of variables for each equation.

3) Algorithm: “the procedure (rule) that applies to a particular type of problem and that, if followed correctly, guarantees the correct answer” (Bruning, Schraw & Norby, 2004, p. 317).

4) Elimination method: the method of solving a simultaneous linear equation by eliminating one of the two variables.