

CHAPTER I

INTRODUCTION

1.1 Background of the Study

Van Brummelen (1998, p.20) states that “schools are prime agencies of socialization. For at least twelve years, students spend one quarter of their waking hours in schools. There, they learn to interact with others according to certain behavior standards and patterns”. The statement above points out those students learn to interact with others in schools. They do not only interact with their peers, but also with the teachers.

Jeremiah, the prophet, also interacted with God in receiving His commands. Before God sent Jeremiah to the Israelites, He appointed him first and then asked some questions to ensure that Jeremiah understood exactly what God meant (Jeremiah 1:4-19).

...The word of the Lord came to me: “What do you see, Jeremiah?” “I see the branch of an almond tree,” I replied. The Lord said to me, “You have seen correctly, for I am watching to see that my word is fulfilled ... (Jeremiah 1:11-12)

God questioned His prophet to know whether the prophet know his mission or not. Besides questioning, God also gave some explanation after the prophet responded to God’s command. Thus, this points out that interaction is really needed.

Van Dyk, in his book *Letters to Lisa*, notes “teaching Christianly requires the right kind of teacher-student relationship” (1997, p. 6). Moreover, Van Brummelen (1998, p. 30) adds that “learning must help students create their own world of meaning”. Being a Christian teacher means being a good model even though not all of Christian teachers teach in Christian schools. The teachers

become a role model for the students and help them in learning. Students see God through their teachers. An interactive classroom atmosphere will take place when the students find out that the classroom is a safe and comfortable place. They know that every opinion, idea, or question is valuable.

“Teaching is fundamentally a person to person activity – a social happening during which the teacher and students are involved in teaching – learning process” (Barry & King, 2006, p. 425). The quotation above points out that the teaching and learning process involves people activity. It is active, not passive. What we expect to be happening in the teaching and learning process is not only for teachers-talking or note-taking. The teacher will deliver a lesson and students will listen to it, if they have questions, they may ask the teachers.

“Jesus facilitated learning in a number of ways. He asked pointed questions, often in response to questions his listeners asked” (Van Brummelen, 1998, p.31). It can be concluded that questions had been used since in the past. On one hand, in the teaching and learning process, the teachers often give time to students to ask question to check for students’ understanding. This is the time for students who do not understand about the topic delivered to begin to ask some questions. On the other hand, there is another way used by teachers to check for students’ understanding. The teachers raise some questions or issues and challenge the students to answer them. Thus, the students start to answer the questions and the class will be interactive during the teaching and learning process.

Teaching biology to junior high school students, especially grade eight, should be interactive. Teenagers in this age range usually have big curiosity.

According to Piaget's cognitive development theory, grade 8 students are in the level of formal operation (see chapter II page 10). In this level, teenagers can think of abstract information better than younger children.

Bruning, Schraw, Norby, and Ronning (2004, p. 194) states that "as any teacher knows, the classroom is above all a social environment and teaching is a form of social interaction" (see chapter II page 23). It means that the classroom is a place for students to be free to learn, explore, and investigate information. They may have many ideas to share and questions to ask. This condition is expected in any subjects of study; not only mathematics or science but also language, physical education, and arts.

However, expectations are often different from reality: what is, is different from what should be. Based on **the pre-observation**, the writer identified that the students did not respond most of the time when the teacher asked questions. This might have been due to the teacher's questioning techniques that made the students find it difficult to understand. Based on the problem, the intention of this study is to determine whether questioning techniques can increase grade eight students' interaction in learning science.

1.2 Statement of the Problem

- a. Can questioning techniques increase grade eight students' interaction in learning science?
- b. How can questioning techniques increase grade eight students' interaction in learning science?

- c. What are the constraints of applying questioning techniques to increase grade eight students' interaction?

1.3 Purpose of the Study

- a. To determine whether questioning techniques can increase grade eight students' interaction in the learning processes of science.
- b. To determine how questioning techniques can increase grade eight students' interaction in learning science.
- c. To identify and overcome the constraints in questioning techniques to increase grade eight students' interaction.

1.4 Benefits of the Study

These questioning techniques, hopefully, will be beneficial for teachers to enable them to increase students' interaction. Teachers are able to understand the constraints in applying questioning techniques for grade eight students in learning science.

1.5 Definition of Terminologies

- a. Questioning technique is teaching technique used in this study.
- b. Students' interaction is the way students give responses during teaching and learning process.
- c. Grade eight students are the students in the secondary level who already passed grade seventh.