

# CHAPTER I

## INTRODUCTION

### 1.1 Background of the study

Nowadays, there are many schools in Surabaya. According to Bagian Sistem Informasi Biro Perencanaan dan KLN DEPDIKNAS – 2007 ([http://www.sertifikasigurujatim.net//index.php?option=com\\_wrapper&Itemid=24](http://www.sertifikasigurujatim.net//index.php?option=com_wrapper&Itemid=24)), there are 1,093 elementary schools in Surabaya and 572 of them are private schools. These private schools compete to gain as many students as possible. One of the programs that they offer is using English as a medium of instruction.

English is the international language that is used worldwide, especially in this era of globalization. In his article, entitled “Benefits of Children Learning English as a Second Language”, Abrahamson (<http://www.eslteachersboard.com/cgi-bin/articles/index.pl?read=2313>) mentions the benefits of learning English. First, learning English can increase a child's linguistic abilities because bilingual children are better able to comprehend the complexities associated with a particular language's meaning and grammar. Second, children are able to function on a more creative level, experience increased attention levels with the ability to block out distractions, exhibit superior reaction time, and prevent the decline of cognitive reasoning later in life. Last, bilingual children also develop enhanced social skills. Bremer

(<http://www.oberseebilingualschool.ch/en/index.cfm?treeID=65>) also adds that “Balanced bilinguals, the brains of which have naturally developed the ability to create simultaneous connections among many different symbols, demonstrate superior cognitive skills to those of monolinguals”.

Parents consider a bilingual education for their child recognize those advantages of learning more than one language early in life. It becomes inclination for some parents to send their child to bilingual school, even though his or her age is still 2 or 3 years old. They might think that speaks two or more languages are necessity. Therefore, bilingual schools should prepare qualified teachers.

According to Paul (2003, 137), teachers should know their role if they want to be an effective teachers. First, a teacher should know his or her role, as a controller or facilitator. Some teachers see themselves as controllers. They are in control of what students learn and of students’ behaviors. Teachers, who see themselves as facilitators, look at children as natural learners. They provide good learning environment for their students succeed. Second, a teacher should give personal direction. There are five factors needed to be considered if the teacher wants to give personal sense of direction; a teacher must be being well prepared, designing activities, selecting appropriates targets, drawing children in, giving a feeling of accomplishment. Third, a teacher should provide help. Proving help can be done by answering students’ questions, helping the students express themselves in English, scaffolding, and hinting. Fourth, a teacher should

give extra help to the students who cannot understand. There are many ways to do this, such as: giving private help, setting extra work, getting parents to help or making use of computers. Fifth, a teacher should teach asking and answering questions. By teaching how to ask questions, students can ask anything that they are interested in. Last, a teacher should reduce dependency. As teachers, we expect our students can learn independently.

Teachers in Indonesia must have educational certificate to teach certain subject. For instance, science teachers must hold educational certificate of science. They suppose not to teach social studies or other subjects, except science. Then, it will come up some questions if science teachers have to teach science in English, such as: how does the science teacher present science concepts using English if (s)he does not speak English? Or how does English teacher teach science if (s)he does not have science education background? How is the language used by science teacher in presenting science using English? Does the school anticipate or be aware of this kind of situation? How does the school bridge this kind of situation?

The writer picked science as the study since science has many difficult words or terms, such as photosynthesis, changing state, water cycle, etc. Therefore, schools should prepare their teachers to use English for specific purposes (ESP). According to Strevens' (1988) (in Hutchinson and Waters, 1991) ESP makes a distinction between four absolute characteristics and two variable characteristics. The absolute characteristics are that ESP consists of English Language Teaching which is (1) designed to meet

specified needs of the learner; (2) related in content (that is in its themes and topics) to particular disciplines, occupations and activities; (3) centred on language appropriate to those activities in syntax, lexis, discourse, semantics and so on, and analysis of the discourse; (4) in contrast with 'General English.' And the variable characteristics are that ESP (i) may be restricted as to the learning skills to be learned (for example reading only); (ii) may not be taught according to any pre-ordained methodology. Dudley-Evans and St John (1998, 75) also adds that "where English is used as the medium of communication and students are expected to present written work and make oral presentations in accurate English, serious weaknesses in grammar require more specific help". Hence, bilingual schools should pay attention both of the teachers and the goal that they want to achieve for their students.

Godwins Elementary school is one of bilingual schools in Surabaya. The greatest level is grade four. The school is national school, they hold national certificate from Dinas Pendidikan. The school uses two kinds of curriculum, national curriculum and Abeka homeschool curriculum which is adopted from United States. National curriculum uses KTSP (Kurikulum Tingkat Satuan Pendidikan) and the medium of instruction is bahasa Indonesia. National curriculum is for students who will not continue their study abroad. The school also facilitates those students who want to continue their study abroad. They can take Abeka curriculum program. In Abeka curriculum, the medium of instructions is English. According to the principal, the reasons why the school choose Abeka curriculum are because

(1) there is no school in Surabaya that uses United States curriculum; (2) this curriculum is easy to be taught to the students: the steps in teaching the concept explain in detail and the teaching aids are provided; (3) the SAT (Stanford Achievement Test) can be taken di Jakarta and Surabaya.

The writer observed the class that uses Abeka curriculum since in that class science is taught in English. Science teachers have to master science knowledge to teach their students. As Carrasquillo and Rodriguez (2005) explain that “Science needs to be taught in a way that is understandable, is active, and includes a meaning-making process that has relevance for multicultural students while promoting increased English language proficiency.”

The school gives rules for the teachers who teach science. Teachers should review the previous lesson before giving the new lesson. They must give hands on experience and projects. There must be fieldtrip programs or outdoor activities. Also, teachers should give quizzes and tests.

Ms. L and Ms. V hold English education background, they do not have science education background. The school wants them to teach science in English. Since science has own terms that are different with general English, teachers must know how science has to be taught and integrate it with the language. By integrating the language and science learning, students will not just gain the concepts of science but also increase their English language proficiency.

## 1.2 Statement of the Problem

In line with the background above the study tried to answer the question: How does the teacher modify the speech in presenting science in English?

Science teachers can help students understand the science concept while improving their English skills by using specific teaching strategies. Fathman, Quinn, & Kessler (1992) suggest that one of the strategies that can be used in presenting science in English is modifying the language. Teachers should pay attention to six important things in modifying the speech or language in teaching science in English. They are (1) focus on key words; (2) use words with personal references; (3) use shorter and less complex sentences; (4) repeat or paraphrase whenever possible and pause frequently; (5) intersperse more questions with discourse; and (6) provide feedback on language through restatement, not overt correction.

Therefore, these following minor research questions were formulated:

- a. How many new words did the science teachers introduce in each meeting?
- b. Did the science teachers use words with personal references?
- c. Did the science teachers use shorter and less complex sentences?
- d. Did the science teachers repeat or paraphrase whenever possible; pause frequently?
- e. Did the science teacher intersperse more questions within discourse?

- f. Did the science teachers provide feedback on language through restatement, not overt correction?

### **1.3 The objectives of the Study**

Derived from the statement of the problem above, the study aimed at exploring the speech modification by science teachers in presenting the science concepts in English, i.e. whether the science teachers:

- a. introduced many words in each meeting.
- b. used words with personal references.
- c. used shorter and less complex sentences.
- d. repeated or paraphrased whenever possible; paused frequently.
- e. interspersed more questions within discourse.
- f. provided feedback on language through restatement, not overt correction.

### **1.4 Theoretical Framework**

This study was based on the cognitive theory which posits that “to make their language more comprehensible to English language learners, teacher can modify how they talk in a number of ways (Fathman, Quinn and Kessler, 1992).” According to this theory, teachers who teach science in English should modify their speech in order to make the science concept comprehensible while improving the students’ proficiency in learning English.

### **1.5 Significance of the Study**

The results of the study were expected to provide information which can help science teachers to improve their teaching ability in presenting science in English. Science teachers can use teaching strategies in presenting science in English especially in modifying the speech for comprehensibility. It is hoped that the findings of the study can be used as the basis for developing syllabus and teaching materials of science which can increase students' English language proficiency.

### **1.6 Scope and limitation of the Study**

This study explored the speech modification by science teachers in presenting science using English. The subjects were science teachers who teach in the third and fourth grades of Godwins Elementary School Surabaya.

The writer limited the study only in speech modification, not answering the achievement in content of science.

### **1.7 Assumptions**

This study was based on the following assumptions that

- a. teachers have good level of English mastery.
- b. teachers have good mastery in science.
- c. in teaching science in English, teachers are good in using English to make their science concepts understandable.

## 1.8 Definition of Key Terms

To avoid misunderstanding, certain key terms are used in this study.

They are defined in the following:

- a. Speech is the verbal means of communicating ([http://www.asha.org/public/speech/development/language\\_speech.htm](http://www.asha.org/public/speech/development/language_speech.htm)).  
Speech modification is modifying of the verbal means of communication.
- b. Science is the investigation of natural phenomena through observation, theoretical explanation, and experimentation, or the knowledge produced by such investigation (The American Heritage Science Dictionary, 2005). The science textbook used by Godwins school is Exploring God's World (Abeka).
- c. Science teacher is someone who teaches science (<http://www.thefreedictionary.com/science+teacher>). In this study, the science teachers are Ms. V and Ms. L who teach primary 3 and 4 in Godwins Elementary School Surabaya.