

# Chapter 1

## Introduction

### Background of the Study

Vocabulary and reading are two crucial elements in language acquisition. Hunt and Beglar (2005) as cited in Sanchez and Manchon (2007) claim vocabulary as the heart of language acquisition, whilst Thiele and Herzic (1983) as cited in Hussein (2012) affirm reading as the pre-requisite of language acquisition. As the heart of language acquisition, vocabulary is a bridge inevitably interrelated to the language basic skills, both receptive (listening and reading), and productive (speaking and writing). Greater vocabulary apparently leads to stronger competency of the skills. As the pre-requisite of language acquisition, reading plays dominant role to provide opportunities to study vocabulary and grammar, to present a good model of English writing and to demonstrate the way to construct sentences, paragraphs and whole texts. Consequently, success in vocabulary and reading is fundamentally a success in language acquisition.

According to Wehmeier, McIntosh, Turnbull, and Ashby (2005) as cited in Cahyono and Widiati (2008), vocabulary is

defined as all the words in a particular language. English vocabulary is wide-ranged and simultaneously grows.

According to University of Oxford (2005), British National Corpus consists of 100 million word collection of samples of written and spoken language from a wide range of sources, designed to represent a wide cross-section of British English from the later part of the 20th century, both spoken and written. Goulden, Nation, and Read (1990) as cited in Nation (2001) states that Webster's Third New International Dictionary contains around 114,000 word families excluding proper names.

Nation and Anthony (2013) further mention three categories of vocabulary, which are (1) high-frequency vocabulary, (2) mid-frequency vocabulary, and (3) low-frequency vocabulary. High-frequency vocabulary is a group of high-frequency words covering a very large proportion of the running words in spoken and written text. Mid-frequency vocabulary is a group of moderate-frequency words. Low-frequency vocabulary is a group of words that occur very infrequently and cover only a small proportion of any text.

In reading, an interaction between the reader and the text occur in order to achieve comprehension. According to Hu and Nation (2000), and Schmitt, Jiang, and Grabe (2011) as cited in

Nation and Anthony (2013), student of English needs to understand around 98% of the running words in a text for unassisted comprehension.

Moreover, Gray (1960) as cited in Alderson (2000) also states that to achieve comprehension the readers must concurrently process three levels, which are reading “the lines”, reading “between the lines”, and reading “beyond the lines”. The first refers to literal comprehension, which is the understanding of the explicit meanings of a text. The second is inferential comprehension, which is the understanding of the implicit meanings. The third refers to critical comprehension, which is the understanding of both explicit and implicit meanings of a text and the ability to make judgments and evaluation. Zintz (1980) as cited in Hussein (2012) states similarly that comprehension or the understanding of what the author has written takes place at different levels of complexity according to the nature of the materials and the purpose for which the reading is intended.

Vocabulary is plausibly related to reading. Numerous researchers have also acknowledged this relationship. Koda (2005) as cited in Chen (2011) posits vocabulary and grammar as knowledge and reading as the ability to understand a text. Hancock (1998) as cited in Chou (2011) believes that in

reading, comprehension involves understanding the vocabulary, seeing relationships among words and concepts, organizing ideas, recognizing the author's purpose, evaluating the context, and making judgments. Nation (2001) believes that students' reading comprehension will improve when their vocabulary size increases. Tinker and McGullough (1975) as cited in Hussein (2012) also points out that nature readers can be produced by high ability to comprehend reading texts, and vocabulary acquisition promotes the understanding and interpretation of the meanings embodied in the texts.

The fact that vocabulary is a foremost variable in successful reading is also consistently revealed. Koda (1989) and Qian (1999) as cited in Chen (2011) mention that vocabulary knowledge heavily relates to reading comprehension more than other factor such as grammar knowledge. Laufer (1997) as cited in Chen (2011) also states that no text comprehension is possible, either in one's native language or in a foreign language, without understanding the text's vocabulary. Hence, students may not be able to attain comprehension without words recognition. Stahl (2003) similarly says that vocabulary is substantially related to reading comprehension that it has consistently been the predictor of a text's difficulty.

Generated by the aforementioned acknowledgment of the correlation between vocabulary knowledge and reading comprehension, the researcher is interested to conduct a more confined research in this area. Vocabulary knowledge is constricted to vocabulary size and reading comprehension is detailed to the three levels of comprehension mentioned by Gray (1960) as cited in Alderson (2000) namely literal, inferential, and critical comprehension. The reasons of the constriction of vocabulary knowledge to vocabulary size, and reading comprehension to the three levels of reading comprehension are:

1. Vocabulary size significantly contributes to all aspects of language. The bigger the size, the better the proficiency. The importance of vocabulary size has been acknowledged by researchers. Meara (1996) endorses that the basic dimension of lexical competence is size, and states that students with big vocabularies are more proficient in a wide range of language skills than students with smaller vocabularies. Freebody (1981) also similarly agree that it is important to measure vocabulary size since it is found to be a good predictor of reading comprehension.
2. In reading, actually a reader does three things: reading, understanding, and thinking. The researcher believes that it

is important to investigate whether vocabulary size is correlated to each step of this process. Gray (1960) as cited in Alderson (2000) mentions this process as the three levels of reading comprehension. The first is reading “the lines” which refers to literal comprehension, the second is reading “between the lines” which refers to inferential comprehension, and the last is reading “beyond the lines” which refers to critical comprehension.

Hence, this research is conducted to investigate the correlation between vocabulary size and the three levels of reading comprehension in terms of its direction and magnitude.

### **The Research Questions**

Numerous studies have been conducted on vocabulary knowledge and reading comprehension, and have proved their relationship. However, further research more constricted in the correlation between vocabulary size and the three levels of reading comprehension namely literal, inferential, and critical comprehension is still limited. The researcher is encouraged to investigate the correlation in terms of its direction and magnitude. Therefore, the research tries to answer the following questions:

1. What is the correlation between vocabulary size and literal reading comprehension?
2. What is the correlation between vocabulary size and inferential reading comprehension?
3. What is the correlation between vocabulary size and critical reading comprehension?

### **The Purpose of the Study**

Derived from the research questions, the purpose of the study is to investigate (1) what the correlation between vocabulary size and literal reading comprehension is, (2) what the correlation between vocabulary size and inferential reading comprehension is, and (3) what the correlation between vocabulary size and critical reading comprehension is.

### **Theoretical Framework**

This study is based on instrumentalist hypothesis (Anderson & Freebody, 1981) and verbal efficiency theory (Perfetti, 1985). These primary theories are supported by: (1) vocabulary size theory (Qian, 2002), (2) vocabulary threshold theory (Laufer, 1997), (3) reading process models namely bottom-up (Gough, 1972), top-down (Goodman, 1967), and interactive (Rumelhart, 1977 & Stanovich, 1980), and (4) reading

comprehension levels namely, literal, inferential, and critical (Gray, 1960).

**Instrumentalist hypothesis.** According to Anderson and Freebody (1981), the instrumentalist hypothesis proposes that the presence or absence of vocabulary knowledge causes or hampers reading comprehension. In other words, knowing words enables comprehension.

**Verbal efficiency theory.** Perfetti (1985) as cited in Chen (2011) declares about verbal efficiency theory that becoming efficient in processing lower level reading skills such as vocabulary knowledge and word recognition will facilitate readers in the processing of higher level reading skills in order to help them attain reading comprehension.

**Vocabulary size.** Vocabulary size is termed by Qian (2002) as cited in Mehrpour, Razmjoo and Kian (2011) as vocabulary breadth and referred as the number of words known at least some superficial knowledge of the meaning. Nation and Anthony (2013) mention three categories of vocabulary, which are (1) high-frequency vocabulary, (2) mid-frequency vocabulary, and (3) low-frequency vocabulary. High-frequency vocabulary is a group of high-frequency words covering a very large proportion of the running words in spoken and written



text. Mid-frequency vocabulary is a group of moderate-frequency words. Low-frequency vocabulary is a group of words that occur very infrequently and cover only a small proportion of any text.

**Threshold hypothesis.** According to threshold hypothesis mentioned by Laufer (1997) as cited in Keshavarz and Mohammadi (2009), certain amount of vocabulary are necessarily acquired in order to be able to use higher level processing strategies to comprehend a text. If the threshold is crossed, adequate comprehension is possible. On the contrary, if the threshold isn't crossed, the comprehension is consequently inadequate.

**Reading process models.** Reading process models are bottom-up, top-down, and interactive model. As cited in Keshavarz and Mohammadi (2009), Gough (1972) introduces the bottom-up model, Goodman (1967) pioneers the top-down model, and Rumelhart (1977) and Stanovich (1980) present the interactive model. In the bottom-up model, large vocabulary size makes decoding and word recognition far more efficient. Reading comprehension and automatic decoding would not be achieved without knowledge of the meaning and word forms in the text. In the top-down model, vocabulary and linguistic repertoire are required for successful prediction on the reading.

In the interactive model of reading, vocabulary knowledge seems to be the most important factor as it relates to both bottom-up and top-down.

**Reading comprehension levels.** Gray (1960) as cited in Alderson (2000) mentions three different levels of reading comprehension namely reading ‘the lines’, reading ‘between the lines’, and reading ‘beyond the lines’. The first refers to literal comprehension, which is the understanding of the explicit meanings of a text. The second is inferential comprehension, which is the understanding of the implicit meanings. The third refers to critical comprehension, which is the understanding of both explicit and implicit meanings of a text and the ability to make judgments and evaluation.

### **Definition of Key Terms**

Qian (2002) as cited in Mehrpour, Razmjoo, and Kian (2011) terms vocabulary size as vocabulary breadth, which refers to the number of words known at least some superficial knowledge of the meaning.

Reading comprehension is generally defined as understanding a text. Gray (1960) as cited in Alderson (2000) mentions three different levels of comprehension namely reading “the lines”, reading “between the lines”, and reading

“beyond the lines”. The first refers to literal comprehension, which is the understanding of the explicit meanings of a text. The second is inferential comprehension, which is the understanding of the implicit meanings. The third refers to critical comprehension, which is the understanding of both explicit and implicit meanings of a text and the ability to make judgments and evaluation.

### **Significance of the Study**

The result of the study is expected (1) to generate students to expand their vocabulary size, (2) to inspire lecturers to apply effective strategies in teaching vocabularies, and (3) to encourage universities to increase vocabulary lesson allocation in English subject at every faculty. Hopefully in the future, students will scholastically gain their reading achievement, lecturers will sustainably improve their teaching quality, and universities will optimally implement the curriculum.

### **Assumption**

The subjects or sample of this research are plausibly accountable since they are the students of English Department at a university in Surabaya. They have adequate proficiency in English. However, the parallel proficiency of the subjects is

verified using ANOVA Test for Equal Variances on the scores of Reading Comprehension Test. The selection of the reading passage in the Reading Comprehension Test is in line with the current curriculum and the students' level of proficiency since it is taken from the Reading text-book used in the running semester at the university. The Vocabulary Size Test is reliable as instrument of this research since it is a worldwide standardized test to measure receptive vocabulary.

### **Delimitation and Limitation**

This research is a quantitative correlational research, and it aims to investigate the correlation between vocabulary size and the three levels of reading comprehension namely literal, inferential, and critical comprehension. The research is conducted to English Department students of a university in Surabaya who are currently on the second semester. Since the research is about reading comprehension, the class of Reading 1 is specifically chosen. It is worth noting that the reference of the three levels of reading comprehension will be represented by the components in a reading test, which is developed by the researcher based on the material determined by the university.