### **CHAPTER 1**

#### **INTRODUCTION**

This chapter presents an introduction to the present study. This chapter brings to fore the background of the study, the objectives of the study, the research questions of this study, the significance of the study, the operational definition of terms used in this study, and the thesis organization.

#### 1.1 The Background of the Study

For decades, textbooks have been considered playing a key role in the process of school education by researchers and educators, determining what and how teachers teach (see, e.g., Watts-Taffe et al., 2003; Dole & Osborn, 2003; Reys et al., 2004; Tyson, 1997; Apple, 1991; Elliot & Woodwart, 1990). Palinscar and Duke (2004, p. 184) argue that even "when teachers elect not to teach from the texts, texts play a significant role in determining the curriculum". The study by Radencich (1995) found that 95% of teachers' decisions are governed by the textbook they use. Thus, students' success in school depends largely on their understanding of the texts, and this understanding is influenced "by a variety of features that characterize the nature of text" (Beck, McKeown, & Worthy, 1995, p. 220). Without close analysis of the texts, it is hard to make conclusions about the efficiency of textbooks in the school instruction. As stated by Schleppegrell (2004, p. 2), "... a careful analysis of the linguistic challenges of learning is important for understanding the difficulties students face and the limitations they demonstrate in talking and writing about topics they have studied." Therefore, studies that concern with close analysis of the texts in the textbooks are necessary to be conducted and explored.

The importance to explore the language of textbooks has become more and more recognized. However, Nathan, Long and Alibali (2002) argue that though textbooks are the main learning tool, "analyses of their composition and organization are often neglected in research on learning from text" (pp. 1-2). As teachers do not normally possess the linguistic knowledge necessary to realize the

challenges the language can pose, they "need help to become aware of the language difficulties present in school textbooks" (Moss, 2006, p. 889).

There are a lot of aspects of textbooks that are worth exploring such as its cultural, social, or textual elements. In terms of textual elements, the text complexity of school textbooks, among other things, could be considered to be one of key elements in determining the students' success in grasping the lessons or subjects the textbooks represent. By having an appropriate level of complexity, the texts will be understood and comprehended better by the students and thus stimulate their development in learning the language.

Text complexity can be categorized as the linguistic features of written texts that can show the level of difficulty. Linguistic or text complexity is fundamental to the current science; however, its precise definition has still been an open issue (Kwapien, 2010). In addition, while the notion of complexity is central to literacy and language education, there is no standard linguistic measure towards it (Rimmer, 2008). This study will focus on measuring text complexity of English textbooks from three perspectives; these are lexical density, lexical variation, and grammatical intricacy.

The lexical density of texts is recognized as a significant factor of complexity of written language (Halliday, 1985). Furthermore, in order to get a better measurement of text complexity, the measurements of lexical variation and grammatical intricacy will also be applied. Even though grammatical intricacy tends to be used for complexity of spoken language as stated by Halliday, it is worth including the measurement of written text complexity since it can show the complexity not only on the level of words but also clauses.

As for the complexity of texts, there have been a number of studies concerning vocabulary difficulty (lexical density and lexical variation of texts) (such as Gibson, 1993; Ventola, 1995) and readability (such as Bruce & Rubin, 1988; Johnson, 1998). Chall and Dale (1948; 1995) developed a formula to measure the readability of school texts and rated texts used in U.S. schools to determine the reading level. Though this formula supposedly measures both lexical and syntactic complexity, its credibility was critiqued by some scholars on the assumption that there are many other factors that contribute to text difficulty (see, e.g., Bruce and Rubin, 1988; Gibson, 1993; Alderson, 2000). Indeed, the complexity of the text depends on not only the number of unfamiliar words, or the sentence length, or the lexical density and variation.

Previous linguistic research about text complexity in textbooks was influenced by Chomskyan formal linguistics (Chomsky, 1956), behaviorist theories of learning (Skinner, 1957), theories of cognitive development (Piaget, 1970), and sociolinguistic theories (Vygotsky, 1978). Since the 1980s, Systemic Functional Linguistics was "brought" to school textbooks first in Australia, then in other countries by Martin (2002), Eggins (1994), Schleppegrell (2004), Christie (2002), and many others. Their research on the language of schooling concentrated mainly on the language of math (Nathan, Long, & Alibali, 2002; Abel & Exley, 2007), history (Moss, 2006; Martin, 2002; Schleppegrell & Achugar, 2003; Coffin, 1997), and social sciences and natural sciences (Ninnes, 2001; Halliday & Martin, 1993; Rose, 2000; Veer, 2000; Macken-Horarik, 2002).

The text complexity of textbooks of language learning has not been the primary focus of attention so far. Moreover, the texts on school textbooks have never been analyzed from the perspective of its complexity based on Systemic Functional Linguistics, particularly in Indonesia. Therefore, this study is an attempt to analyze the text complexity of senior high school English textbooks based on the perspective of systemic functional linguistics in the Indonesian context.

Three senior high school textbooks in English subject written for different grades have been selected for a close analysis. Thus, sequence is important in this research (see Schleppegrell, 2004; Chall and Squire, 1991). This research looks closely at the sequenced texts to see how text complexity progresses.

### **1.2** The Problems of the Study

On the basis of the concerns mentioned in the background above, the problems of the present study are formulated in the following questions.

- 1. How does lexical density progress among and within the selected English textbooks?
- 2. How does lexical variation progress among and within the selected English textbooks?
- 3. How does grammatical intricacy progress among and within the selected English textbooks?
- 4. What is the pedagogical implication from the exploration of text complexity of the textbooks for textbook writing and teaching purposes?

# **1.3** The Objectives of the Study

In line with the research questions formulated above, four objectives are outlined as follows.

- Objective 1: To discover the progression of lexical density among and within the selected English textbooks;
- Objective 2: To discover the progression of lexical variation among and within the selected English textbooks;
- Objective 3: To discover the progression of grammatical intricacy among and within the selected English textbooks;
- Objective 4: To examine the pedagogical implication from the exploration of text complexity of the textbooks.

# **1.4** Significance of the Study

As it was mentioned earlier, this study examines text complexity of senior high school English textbooks covering the analyses of lexical density, lexical variation, and grammatical intricacy. The results of the present study are expected to offer both theoretical and practical contributions.

Theoretically, this study is expected to provide enrichment to the body of knowledge regarding the analysis of textbooks especially in the area of text complexity, which in this study is represented by lexical density, lexical variation, and grammatical intricacy, from the perspective of systemic functional linguistics. It may also to some extent inform the direction for further studies. Practically, this study is expected to provide an insight for teachers, practitioners, and textbook writers in choosing and developing English textbooks as teaching materials for students.

# **1.5 Operational Definition**

It is essential to clarify the terminologies that are used in the presentation of this study with the intention of having similar understanding of the technical terms appearing in this study. Therefore, the operational definitions of those terms are introduced as follows.

- Complexity means a composite measure of language use, normally reflecting the length of utterances and the amount of subordination used (Richards & Schmidt, 2010).
- 2. Systemic Functional Linguistics (SFL) or Systemic Functional Grammar (SFG) is a functional-semantic approach to language, which explores both how people use language in different contexts and how language is structured for use as a semiotic system (Eggins, 2004).
- 3. Systemic functional analysis is a language analysis that applies the principles and theories of SFL.
- 4. English textbooks are the books used as a standard work for the study of English subject.
- 5. Lexical density is the proportion of lexical items (content words) to the total discourse (Halliday, 1994).
- 6. Lexical variation is the variation of lexical choices in a text and it can be calculated by dividing the number of different lexical words with the total number of lexical words (Castello, 2008)
- 7. Grammatical intricacy is the calculation of the number of clauses in a text as a proportion of the number of sentences in the text (Eggins, 2004).

# 1.6 Organization of the Thesis

This thesis consists of five chapters. Chapter 1 highlights the background and the basic description of the problems of this study. Chapter 2 reviews theories that build the framework of the present study. Chapter 3 describes the methodology

that is used to conduct this research. Chapter 4 elaborates research findings and discussion. Chapter 5 presents the conclusion of the thesis and offers some recommendations.

## 1.7 Concluding Remarks

This chapter has presented the introduction of the study, which includes background of the study, research questions, objectives of the study, significance of the study, operational definition of terms, and organization of the thesis. The background of the study emphasizes the importance of this study that is supported by burning issues and related previous research. The research questions and the objectives of the study provide interrelated concepts on questioning the problems that would be investigated. The significance of the study mentions the importance of this study and how the result of this study may affect some parties. The operational definition of terms provides specific definitions of terms related to the current study. The organization of the thesis explains the whole structure of the thesis in presenting the research. The next chapter will present the literature review that frames the study.