

**Iteration Analysis of Reading Materials in ELT Book,  
*Developing English Competencies 3*****(Analisis Pengulangan Kata Materi Ajar Membaca dalam Buku Ajar Bahasa Inggris,  
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**ABSTRAK**

Mempelajari bahasa adalah hal mendasar dan sangat bergantung pada kosa kata. Selektif dalam materi pembelajaran, terutama membaca teks yang disajikan dalam buku teks yang digunakan dalam proses pembelajaran di kelas sangat penting untuk keberhasilan pembelajaran. Bahan-bahan buku ELT (pengajaran bahasa Inggris) seharusnya menyediakan jumlah dan rentang kata yang cukup, peningkatan kosa kata, dan strategi untuk belajar mandiri. Namun, penelitian ini difokuskan hanya pada unit leksikal yang diperkenalkan dalam teks bacaan. Dua masalah dipertanyakan untuk mengetahui item leksikal dari bahan bacaan yang disajikan dalam sebuah buku teks: berapa banyak unit leksikal yang mempertimbangkan kata-kata yang paling sering dalam bahasa Inggris dan berapa banyak unit leksikal yang disajikan dalam latihan atau perulangan. Metodologi kuantitatif deskriptif digunakan untuk meneliti sebuah e-book, *Developing English Competencies 3*, yang mana corpusnya menjadi objek. Alat observasi dan komputasi; RANGE dan FREQUENCY, diterapkan sebagai instrumen untuk memudahkan penghitungan dan dianalisis dengan membandingkan daftar frekuensi umum. Ditemukan bahwa buku itu jelas tidak seimbang tentang jumlah dan distribusi di ketiga rentang. Dengan demikian, peluang untuk latihan berulang sangat buruk. Banyak kata yang sering tidak sesuai dengan skala frekuensi umum Bahasa Inggris.

**Kata kunci** : frekuensi, materi membaca, satuan kata, penguasaan kosakata**ABSTRACT**

*Learning a language is fundamental and deeply dependent on vocabulary. To be selective in learning materials, especially reading texts presented in the textbooks used in the learning process in the classroom is very important for success of learning. The materials of ELT (English Language Teaching) books are supposed to provide sufficient quantity and range of words, vocabulary improvement, and strategies for self-learning. But, this study is focused only on the lexical units introduced in the reading texts. Two problems are questioned to figure out the lexical items of the reading materials presented in the ELT book: how many lexical units consider the most frequent words in English corpora and how many lexical units are presented in rehearsal or iteration. Descriptive quantitative methodology was used to research an e-book, *Developing English Competencies 3*, which the corpus became the object in this study. Observation and computational tool; RANGE and FREQUENCY, were applied as the instrument to make easier counting and analyzed by comparing to general frequency list. It was found that the book was clearly unbalanced about the amount and distribution throughout the three ranges. Then, the opportunities for repetitive practice were very poor. Many frequent words did not fit the English general scale of frequency.*

**Keywords** : frequency, lexical item, reading material, vocabulary acquisition

## 1. INTRODUCTION

A general objective of English language teaching in the secondary school is to develop English reading skill. The ability to read foreign language is mostly the learners want to acquire. Many foreign language learners often confess reading as one of their most important goals to obtain information, pleasure and study purposes. For both children and adults, the ability to read opens up new worlds and opportunities.

Vocabulary, according to Seddigh, is inevitably an integral part of any language system and vocabulary knowledge has a significant role in language comprehension and production [1]. It is a core component of language that provides much of the basis for how well the learners speak, listen, read, and write. Laufer (1992; 1997) cited from Read states that English second language readers requires to have vocabulary of at least 3000 word families in order to have some knowledge of 95% of the running words in a text [2]. In order to understand a text, the readers should be familiar with 3000 words or 95% of the words in the text at any level. Vocabulary and better meaning of words become one of the most important components of understanding discourse. Thus, it is possible to say that learning a language is fundamental and deeply dependent on vocabulary. A good textbook is needed to hold up the vocabulary enrichment and development that become an objective of of greater importance in all areas of ELT books.

A textbook, according to Cunningsworth (1995) cited from

Richards, can be evaluated and selected as a good book when it performs eight categories; aims and approaches, design and organization, language content, skillll, topic, methododlogy, teacher's book, and practical considerations [3]. One of them, the third category, language content, precisely the second point, asks whether the material for vocabulary teaching is adequate in terms of quality and range of vocabulary, emphasis placed on vocabulary development, strategies for individual learning. The materials of ELT books are supposed to be sufficient quantity and range of vocabulary, vocabulary improvement, and strategies for self-learning.

From the point of view of efficiency in voabulary acquisition, the amount of lexical information can enter and consolidate in long-term memory. Neurologists and psycholinguists say that long-term memory is activated and strengthened mainly through rehearsal or iteration and activation. Iteration or repetition practice has been presented all throughout the teaching history and there is no doubt as effective technique for teaching and learning. As Hedge affirmed that the most frequently occurring words in the English language will be the most useful to learners [4]. It has been frequently proved that the more frequent a word is the faster lexical access. A clearer understanding of how relationships between the frequencies of words might affect very crucial on vocabulary acquisition. The words that often occur in the reading materials even in teacher talks give opportunity for the learners to acquire easily.

The list of high-frequency words classically is a General Service List of English Words. It, according to Michael West (1953) and Nation and Hwang's (1995) in Nation, contains around 2,000 word families. The running words almost 80% of a text is high-frequency words" [5]. It is important to remember that the English high-frequency words consist of very high frequent words and some words only slightly more frequent than others not in the list.

The seventh Indonesian TEFL curriculum – called *KTSP*, curriculum 2006 is genre-based approach. In this curriculum, there is no certain grammar and a number of words the learners should acquire. In addition, Wells (1987) said in Depdiknas that there are some literacy levels will be reached by the learners in learning a language; performance, functional, informational, and epistemic [6]. The students of secondary school are required to reach the *informational level* by They are expected to be able to access the knowledge with their language ability because they are prepared to go to university. In reading activities, the materials should support the students to reach their level. The reading materials for senior high school students, especially twelfth graders must be in line with the English basic competence of curriculum 2006. The students have to comprehend the meaning of short functional texts and simple monologues in the form of narrative, explanation, discussion, and review for daily context and accessing knowledge.

The selective teaching and learning materials, especially for reading used in

the classroom is very important for English teachers. It becomes the principle thing to develop the students' language proficiency. English teachers have to choose the reading materials based on the students' level that they can understand most of the message delivered by the vocabulary and the structural elements of the texts.

However, a number of learners of high school face problems in learning English. They have poor comprehension of many texts. Even though senior high school students have studied English in the formal education for several years, the goal of teaching English as a foreign language seems far to reach. These result from having no reasonable scope of vocabulary. Many textbook authors, both language teaching theoreticians and practitioners seem to have less attention on vocabulary acquisition [7] - [8]. They do not consider on element maintaining vocabulary acquisition faster.

In fact, many Indonesian textbooks have a long tradition focused on grammar. Setiawan found that the vocabulary of reading materials in English textbook for the seventh grade of secondary school published by CV. Nadia Sarana Utama, Balikpapan only meet the criteria of 500 words and the variations to use the words are so limited that certain words only appear [9]. In addition, Prayitno also discovered that *Look A Head 2* has monotonous and inadequate vocabulary [10]. The importance of vocabulary and how often the words rise in the texts have not always been adequately emphasized.

Based on the reason above, the researcher would like to look into the

lexical items of reading materials presented in e-book, how many lexical units the electronic book take into account the most frequent words in English corpora and how many lexical units are presented in rehearsal or repetitive practice.

## 2. METODE PENELITIAN

### 2.1 Research Design

This research used the descriptive quantitative method due to the fact that the data was in the form of numbers and it uses a computational tool to compute the data. Due to quantitative research is characterized by the use of numbers to represent its data [11]. It is aimed to find out whether the lexical items presented in a textbook hold up the vocabulary acquisition especially whether the number of lexical items mentioned in textual materials positively approach on their adequacy to the general frequency list of English i.e. 1,000, 2,000, and 3,000 most frequent words of English.

### 2.2 Object of Study

*Developing English Competencies 3*, for Grade XII of natural and social science programmes of senior high school (SMA/MA) became an object of this study. The e-book was written by Ahmad Doddy, Achmad Sugeng, and Effendi whose copyright has been bought by *Department Pendidikan Nasional* and published by Pusat Perbukuan, Jakarta in 2008. *Badan Standar Nasional Pendidikan* (National Standard Board of Education) assessed and decided to be one of the school textbooks because it accomplishes the possibility necessary to use in the learning process. Its principle is

applied not only to the School-Based Curriculum 2006 but also to *Peraturan Menteri Pendidikan Nasional* No. 34 in 2008. The e-book was selected due to its methodology is communicative approach designed to facilitate the students of senior high school to communicate in English according to the context of the language use. Besides, it is used in many senior high schools especially for natural and social science programs that it enables students to access various information of science to prepare them to go to university.

### 2.3 Data and Sources of Data

Data are certain information used as the basis material of the analysis to get the answer of the research questions. After collecting, the data were counted in the form of numbers rather than words obtained from interpreting of counting frequency of lexical items in the reading materials. The e-book, *Developing English Competencies 3* is organized in 5 chapters with 26 pages in the average. Every chapter contains more than one text related to the theme of the chapter. The texts were composed of 11 short functional texts consisting of 'advertisement', 'announcement', 'notice', and 'poster', and 39 essays consisting of 4 kinds of genre: narrative, explanation, discussion, and review. It is worth noticing that the glossary includes about 141 words, which are defined as 'the most frequent words', with no further specifications.

However, the corpus used as the source of the study is reading materials in form of short functional text and essay texts in. The short functional text used in this study consists of two only;

advertisement and announcement. In addition, two narrative texts of chapter 1 and four items of chapter 4, three explanation texts of chapter 2, two discussion texts of chapter 3, and two review texts of chapter 5 are chosen as the samples of essays to study. The glossary clearly contrasts against the 1,434 types with files range in the length from 107 to 3,994 words (tokens) and the total length of the entire corpus of 5,064 words.

## 2.4 Instruments of Study

The instrument of the study was observation and computational tool. In this regard, observation by reading and identifying reading materials was used to select texts in every chapter. It was done to compare between the lexical units recorded in the electronic book and the most frequent words recorded in frequency lists based on English corpora, whether they were presented in repetitive practice or not. To make easier, the researcher used a computational tool, RANGE and FREQUENCY designed by Nation (2001) and developed by Heatley, Nation, and Coxhead (2002) available at <http://www.vuw.ac.nz/lals/staff/paul-nation/nation.aspx>. The frequency found in the textbook was compared to the vocabulary with the three base-word vocabulary ranges defined by Nation in 2001 (1,000, 2,000, and 3,000 most frequent words of English) which the 2,000 word level usually has been set as the most suitable limit for high-frequency words [5].

## 2.5 Data Collection Technique

To obtain the needed data, the computational tool collected the vocabulary and classified them into three frequency categories; the first 1,000, the second 1,000, and the third 1,000 most frequent words of general English. Then, the words did not include within these first three categories appear as 'off ranges'. The classification of words as tokens (every word form in the text repeated or not), types (different words in the text such as 'friend' and 'friends' are two types), and word families (the headword, its inflected forms and its closely related derived forms) were very relevant for this study.

Additionally, the identification of tokens vs. types allowed for a contrast between the raw vocabulary inputs against the new words really introduced in the text. From the perspective of vocabulary acquisition, the researcher, then, checked whether the e-book complies vocabulary acquisition, in particular those regarding 'opportunities for repetition', which depend on the frequency of occurrence of lexical items throughout the textbook or not.

## 2.6 Data Analysis Technique

The corpus was analyzed using the classic list of high-frequency words, the GSL-based frequency list. As Michael West (1953) in Richards stated that general service words are looked into account suitable as the basis for learning English as a foreign language [3]. The list contains 2000 words or 80% of the running words in the text are high-frequency words and considered to be supposed to give first in teaching English as a foreign language.

In answering whether the lexical units in the e-book, *Developing English Competencies 3* were taken into account the most frequent words in English corpora, comparing the frequency lists for two corpora could give interesting information about the difference. The frequent words found in the textbook were compared to the vocabulary with the three base-word vocabulary ranges defined by Nation in 2001 (1,000, 2,000, and 3,000 most frequent words of English). It would be an indicator of vocabulary knowledge matching the 'expected' vocabulary according to the frequency list of general English, and particularly in relation to the first 3,000 most frequent words as identified by Nation (2001).

Regarding repetition or iteration, text-based frequency software is used to identify unfamiliar words recycled three times or more in the corpus as a whole presented in reading materials. At least three repetitions is required for reliable retention based on studies of the numbers of encounters. Some proper names e.g. *Indonesia, Moeslem, and Saturday* occur in the corpus and are categorized according to their frequency on the GSL, but the character names in the class were not included in the analysis.

### 3. FINDINGS

#### 3.1 Lexical Units in the Ebook

*Developing English Competencies 3* was full of 5,064 running words (tokens). The amount of distinct words (types) is 1,434 words classified into 817 word families as in the following table.

Table 4.1 Tokens, types, and word families for range 1, 2, and 3 in *Developing English Competencies 3*

Word Range	Tokens %	Types %	Families
(1) 1000	3994/78.9	819/57.1	566
(2) 2000	343/ 6.8	213/14.9	186
(3) 3000	107/ 2.1	74/ 5.2	65
off ranges	620/12.2	328/22.9	???
<b>Total</b>	<b>5064</b>	<b>1434</b>	<b>817</b>

The e-book doesn't introduce the tokens and types evenly. Regarding the word ranges defined by Nation (2001), 3994 (78%) of the tokens are categorized as range one. 343 (6.8%) of the tokens are member of range two. 107 (2.1%) of the tokens belong to range three, and 620 (12.2%) of the tokens are owned by offranges. In addition, the distinct words, 1,434 types are consists of range 1, 2, 3, and off ranges. Range 1 is about 57.1% (819 types), range 2 is 213 types (14.9%), and range 3 is only 74 types (5.2%). While, off ranges accounts for 328 types (22.9%).

Range 1 consists of 3,994 tokens (78.9% of the total) that cover only 819 types (57.1%) in 566 word families. This quantity is significantly higher and reasonable. The imbalance between tokens and types is because of the height of lexical item frequency in range 1, which does not contradict the normal distribution of words in texts. It means 181 types of range 1 do not occur in the textbook. It is hard to assume that students have already been fully strong on those 181 high frequency items.

Tokens in range 2 are about 343 words or 6.8% of the total with 213 types or 14.9% of the total in 186 word families. This amount is too low compared to the total tokens in the textbook and also more specifically to the amount of range 1 (as the percentage clearly shows). While, the amount of types, however, is not significantly equal, 213 types or 14.9%;

this is also the case for word families. The relative lack of balance in the amount of tokens and types regarding the total of lexical items in the textbook indicates serious negative consequences.

Range 3 shows a sharp contrast because of containing 6.5 words only with 2.1% of the total or 107 tokens and 5.2% or 74 types. This sum is too small when it is evaluated to total number of tokens in the reading texts. It is far away from expectations if the goal of textbook is to reach informational level since this level for 'independent users' requires a fluent comprehensive English use in daily life, very much in line with the third 1,000 words included in range 3 and the 2,000 words from the previous ranges, 1 and 2.

'Off ranges' that is more advanced level contains 620 tokens or 12.2% with 328 types or 22.9% of the total types. This amount has actually not reached the goal of textbook. However, the number is higher than the total types in both range 2 and 3. Comparing between the amount of 'off ranges' and the word in range 2 and 3 also shows the same case. The total types of range 3 are 287 types or 20.1%. Thus, the amount of 'off ranges' is considered higher than of the total types'.

*Developing English Competencies 3* presents imbalanced distribution of types. The range 1 offers high enough types. But, the descending bend for new vocabulary breaks off in range 2. In addition, the curve falls down even more in range 3. Nevertheless, it comes up abruptly in 'off ranges'. However, the distribution of the highest figure is supposed to belong to ranges 2 and 3, while the 'off ranges' interval ought to take lower percentage

and range 1 must be granted a moderate representation for consolidation purposes.

### 3.2 Lexical Units in Iteration

The textbook introduces the 1,434 words (types) with 1,291 occur fewer than six occurrence. The omission of words occurring fewer than six occurrences would be considered as high frequency words. Therefore, the amount types are possible for vocabulary acquisition is up to 143 types, a tenth of the total of types in the reading materials.

The first most frequent words found in the book reveal the function words, some verbs, and some of importance of the school setting: *the, and, to, a of, he, was, in, that, she, it, is, his, as, from, for, these, when, with, said, they, by, him, I, s, you, had, on, rain, at, so, her, abortion, all, but, up, be, doctor, reading, then, water, who, an, day, have, not, acid, if, one, or, people, what, into, some, ....* Such a list above, some of them are included in range1. Range 2 dan 3 also embody the texts in spite of a little of them. Besides, there are also some words belonging to 'off ranges but they occur frequently.

## 4. DISCUSSIONS

### 4.1 Lexical Units in the Ebook

According to Cunningsworth (1995) cited from Richards, a textbook can be evaluated and selected as a good book when it performs eight categories [3]. One of them percisely in the second point of the third category, language content evaluates whether the material for vocabulary teaching is adequate in terms of quantity and range of vocabulary that emphasizes placed on vocabulary development, and strategies for individual learning. The

reading materials of ELT books are recommended not only to offer the sufficient words supposed to acquire but also to increase the amount of tokens and types, vocabulary improvement, and strategies for self-learning. However, this study found the book seems far away from the expectation in term of the amount of lexical unit. Besides, the distribution also reveals a strongly marked imbalance in the new words introduced in ranges 1, 2, and 3 versus 'off ranges'.

As McCarthy said that token or 'running words' is instance or individual occurrence of a type [12]. It is a simple way to count token since it counts every word. In fact, the reading texts of *Developing English Competencies 3* contain 5,064 tokens. Another way is type or different word. Nation also added that a repeated word is counted only a single type [5]. Thus, the amount of distinct words (types) from 5,064 tokens is 1,434 words classified into 817 word families as in table 4.1.

As cited from Criado, Nation & Waring (1997) stated that reading and understanding authentic written texts require a vocabulary of three to five thousands word families, word family: a base word plus its derivatives [7]. To achieve good comprehension, it is required at least the first 3,000 most frequent words or the three base-word vocabulary ranges (1,000, 2,000, and 3,000 most frequent words of English). Nevertheless, another different case is found in this study such as introducing too small numbers both types and word families. The contrast is illustrated between amount of 'off ranges' and the

word range 2 and 3. The higher figure should belong to range 2 and 3, while the 'off ranges' interval is supposed to take lower percentage.

#### 4.2 Lexical Units in Iteration

A great deal of psycholinguists confirmed the influence of word frequency on language acquisition. It means higher frequency of occurrence supports vocabulary acquisition very much. It can give more opportunities for repetition and even for proceduralisation. Still, the frequency is related to the topics dealt with the texts presented. It is possible that the words have no relation to the topics have low frequency.

As annotated by Crothers and Suppes (1967) and Horst, Cobb, & Meara (1998) cited from Yongqi Gu, the learners can recognize and recall the words well unless the words has been repeated at least six times [13]. However, this research learns the book, *Developing English Competencies 3* offers and presents low occurrence, fewer than six occurrences since only 143 types are involved the high frequency. It almost cannot be considered as candidates of memorization as a goal to reach in vocabulary acquisition. In another word, the frequency is too weak to support the consolidation and proceduralisation effectively.

Furthermore, almost all languages have a set of very common words used frequently and infrequently. Hedge affirmed that the most frequent occurring words in the English language will be rationally the most useful to learners [14]. Most learners use a set of very common words used frequently, rather than



infrequently. On the other hand, compared to the expected frequency list of general English, the e-book reveals a clear imbalance in the aspects of vocabulary selection. Such a list familiar to the learners does not match the frequency rank of a general frequency list of English. It is still required the word range 2 and 3 to take into account in an overall evaluation.

Likewise, it is supposed by Jay that the more frequently a word is used, the easier it is to process [15]. The frequency of a word links to the speed with which it is retrieved. The higher the frequency of the word, the faster to identify as a word or named. This phenomenon was showed in this study in spite of one part only; *Developing English Competencies 3* offers and presents the lexical units as a goal to be reached in vocabulary acquisition with the frequency list of general English especially the function words and the lexical units in range 1.

## 5. CONCLUSIONS AND SUGGESTIONS

In this case study, the lexical units of the reading material analyzed in the book do not seem to consider some of the most basic issues affecting vocabulary acquisition. The comparison of the results do not allow for an optimistic conclusion. Imbalanced points are to be stressed regarding to the amount of lexical units and iteration. The book is clearly unstable both amount and distribution of vocabulary offered throughout the three ranges. It is reasonable to acquire vocabulary for the range 1 only but not for range 2 and 3. Then, the opportunities for repetitive practice are very poor. The e-

book brings in 1,434 types but only 143 types (ca. 10% of the total types) including high frequency since they appear more than five times. The words offered and presented in the e-book as a goal to reach for vocabulary acquisition are not in line with the frequency list of general English. In addition, there are mismatches between the words selected in the e-book and the most frequent words from English frequency lists.

The textbook, *Developing English Competencies 3* is limited to offer all possible comprehensive situations in the real life. It is suggested for the teachers to pick the materials, which can increase the learners' vocabulary. Besides, a lot better for the book authors to be more selective, using the reading materials in the textbook by considering the most frequent words and repetitive practices. More study, however, is expected to carry out the whole content of the book evaluation.

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