A Corpus-based Study of Vocabulary as Input in EFL Text-Book: A Case in an Indonesian Islamic College

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Abstract
This study aims to identify the opportunities for vocabulary learning the EFL text-book entitled English Intensive Course for Islamic Studies provides for students. It specifically investigates the number of vocabulary the text-book under investigation presents, the distribution and frequency of the vocabulary, the top 100 words contained in the text-book, the distribution of word categories within 2,000 most frequent words, and whether the learners who use the text-book have sufficient exposure to the most frequent 2,000 English words. A corpus-based approach is used in this study. The results show that the text-book provides approximately 13,823 tokens which are listed in the first 1,000 words, making up to 79.3% of the running words. The total 2,548 types of vocabulary and the total 1,137 word families are found in the text-book. It provides vocabulary exposure to approximately 1,021 word families of the 2,000 most frequent words. It leaves around 979 word families to explore more. This situation shows that the text-book provides the students with insufficient exposure to the most frequent 2,000 English words.

Keywords: corpus-based study, vocabulary, frequency, EFL, text-books

INTRODUCTION
How many English words do you know? How many words do your students know? What words should our students be focusing on in learning English? Which words they should learn first before the others? It is quite likely that any English teacher once thought of these questions along the line of their experience in teaching English as a foreign language.
As regards the students, it is important for them to be able to read without external support, i.e. dictionary. For this purpose, there are several ways to decide on how many words a learner of English as a second or foreign language needs to know.

The most ambitious is to try to work out on how many words there are in English and to see that as a learning goal. Studies that have tried to do this have come up with figures of 114,000 word-families (Goulden et al., 1990). However, this is a very high standard for a foreign language learner, especially beginners. After all, students do not to learn all of the words in the dictionary. There are words which are frequently used more than other words, and those would constitute a good target for beginners to learn first before the less frequent ones. The second way to decide the vocabulary learning goal is to look at what native speakers know and to see that as the goal and there has been a long history of research in this area (Nation, 1993). It has been identified that well-educated native speakers know around 20,000 word-families (excluding proper names and transparently derived forms) (Goulden et al., 1990). Yet, for a teaching learning program, especially for the beginner learners, this target is still too ambitious.

Recent unpublished research by the first author indicated that highly educated nonnative speakers of English who are studying advanced degrees with the medium of English have receptive English vocabulary size around 8,000 to 9,000 word-families (Nation, 2006). The best goal which is sensible is to set the goal primarily at high-frequency vocabulary of 2,000 words. Then, after the primary goal is reached, then Academic Word List will be the next step (Coxhead, 2000).

Foreign language learners are required to learn the basic vocabulary to meet the target 2,000 most frequent words as suggested by Nation (2001). The high-frequency vocabulary allows learners to be able to participate in the daily communication. Learners need more vocabulary exposure in the language program, including teaching learning process and classroom materials such as text-books.

Among a few scholars who have concerns about text-books and vocabulary is Thornbury, who sees text-books as sources of words (Nation, 1990). Thornbury (2002) claims that vocabulary input is realized in the actual content of books by means of segregated vocabulary activities, integrated text-based activities, grammar explanations and task instructions. The text-book is viewed as a container of vocabulary input, an important resource for language learning.

The text-book under investigation is entitled English Intensive Course for Islamic Studies (Fitriani et al., 2010) published by Sekolah Tinggi Agama Islam Negeri Ponorogo Press in 2010. This text-book is written to be used as the coursebook of English Intensive Course, as one of the General Competence Subjects, offered in the first semester to every student, in every faculty in Sekolah Tinggi Agama Islam Negeri Ponorogo (State Islamic College of Ponorogo).

In our context, we can see that the text-book seems to be the main, if not the only written input available to the learners. In other words, the text-book is their main source of vocabulary.
Relevant to the background of the study, the present study seeks to answer the following questions: (1) How much vocabulary does the EFL text-book under study present?; (2) How is the frequency of these words?; (3) What are the top 100 words used in the text-book?; (4) How is the distribution of word categories within the 2,000 most frequent English words?; (5) Does the learner using the text-book have sufficient exposure to the most frequent 2,000 English words? As such, the goal of this study is to identify the opportunities for lexical learning offered to students by the EFL text-book abovementioned from the point of view of the frequency of lexical items.

One of the previous studies related to this research is the study conducted by O’Loughlin from Kanda University of International Studies, Japan in 2012. The results suggest that learners who complete three text-book levels have exposure to fewer than the first 1,500 most frequent English words. In their research, Matsuoka and Hirsh (2010) also found that the text-book in use provides opportunities to deepen knowledge of the second 1,000 most frequent English words, and also provides a context for pre-teaching of academic words met in the text for learners on an academic pathway. The other study by Nurweni indicates that, on average, the students knew less than the first 1,000 words, 987 word families to be exact and 239 of 808 university words, making the total of 1,226 words (Nurweni, 1999).

**Vocabulary and EFL Learning**

Vocabulary is one of the basic factors which support language learners in mastering foreign language. Vocabulary knowledge has been perceived by educators and researchers as the most essential building block in authentic communication (Milton, 2009). It is the first step in learning any language as can be seen in Wilkins’s strong and famous claim that, “while without grammar very little can be conveyed, without vocabulary nothing can be conveyed” (Wilkins, 1972). Vocabulary is essential in EFL learning and students can improve their vocabulary by reading and listening. The prior vocabulary knowledge may have a significant impact on the amount of vocabulary learning made through extensive reading (Webb & Chang, 2015).

Nation (2001) has identified three dimensions with nine multiple components which must be known about vocabulary, including written and spoken form, meaning and association links, grammatical characteristics, collocations, and contextual constraints on use like register and frequency. A study by Hwang and Nation has shown that knowledge of the 2,000 most frequent word families enables L2 readers to recognize 84% of the words in various types of authentic texts (Hwang & Nation, 1995). And it is important to note that for university foreign language learners, knowing the most frequently used 2,000 English words will give them the competence to communicate effectively in speaking and writing modes (Schmitt, 2010).

**Vocabulary Knowledge and Reading Comprehension**

Vocabulary is very important to improve English skills, especially among university students. Vocabulary knowledge is likely to be used as the indicator of student’s reading comprehension. A lack of vocabulary can be the cause of difficulties in reading comprehension. The word “comprehension” has been defined as “intentional thinking
during which meaning is constructed through interactions between text and reader” (Harris & Hodges, 1995). The experts have shown that measures of readers’ vocabulary knowledge strongly correlate with measures of reading comprehension. Vocabulary difficulty, then, has consistently been shown to have an impact on comprehension (Freebody et al., 1983).

Vocabulary knowledge has been categorized into eight types including form, grammatical pattern, meaning, function, and relation with other words (Nation, 1990). Furthermore, there are two kinds of vocabulary knowledge: receptive and productive vocabulary. Receptive vocabulary is the ability to get the meaning of vocabulary while reading or listening to language in use; whereas productive vocabulary knowledge refers to the ability to recall and reuse the vocabulary in written form or in speech. In addition, vocabulary breadth entails vocabulary size or the quantity of words learners know at a particular level of language proficiency (Nation, 2001).

Knowing limited vocabulary obviously affects the student’s reading comprehension. Lack of adequate vocabulary knowledge is seen as a serious obstacle for many students when reading, listening, speaking, or writing. Students who are lack of vocabulary will need external help such as dictionary in order to know the meaning of vocabulary they do not know. Research done by Sidek and Rahim (2015) indicated that the participants were lacked of vocabulary knowledge in the EFL in comparison to vocabulary in their native language. Thus, the findings provide evidence that a reader’s level of vocabulary knowledge is one of the factors which plays a crucial role to determine reading comprehension performance in English as a foreign language.

**Vocabulary and EFL Text-books**

Research and publications by Nation (2001) have been frequently cited for promoting studies on vocabulary and text-book. Classroom teaching and text-books are similar in their overall purposes and topics. The primary situational difference between the two is that classroom teaching is spoken and produced in real time, while text-books are written and therefore carefully planned, revised, and edited (Biber, 2006). It has been found that vocabulary learning involves both intentional learning and incidental learning through exposure to input. Researchers have suggested that different aspects of vocabulary knowledge may be learnt through each of these modes.

Nation (2001) suggests that form-aspects, grammatical functions and collocations are best learnt incidentally, leaving meaning aspects and constraints on use requiring intentional learning. There are a great number of studies which have investigated the factors required to acquire vocabulary for foreign language learners. Materials writers are seen as one of four learning elements beside students, teachers, and researchers who need to contribute to enable students to overcome the lexical learning challenge (Schmitt, 2008).

Text-books undoubtedly have a considerable influence on classroom practice, forming the core of most teaching programs (McDonough & Shaw, 2012). Littlejohn (1998) calls them ‘the most powerful device’ for the transmission of ideas through the English language teaching profession.
A study of English as a foreign language text-books for young learners conducted by Nordlund (2016) has showed that the variation in vocabulary was considerable in individual books. It was reported that within a series and between the two series; all text-books contain a high proportion of one-time and low-frequency words. Therefore, it is difficult to pin down a common core vocabulary. Thus, even though many words do correspond to general high-frequency words, as many as one-third are not found among the 2,000 most frequent English words.

**EFL Vocabulary Teaching and Practice in Indonesia**

According to Cahyono and Widiati (2015), the reasons why there has been limited research on vocabulary acquisition was likely due to lacking models of vocabulary acquisition and the underlying relation between words and lexicon. Studies have shown that many EFL learners do not have an adequate vocabulary size to function effectively in an English language environment (Nurweni, 1999). When dealing with vocabulary size, teachers need to consider starting from the most frequently-used words. Teachers or lecturers necessarily need to expose the information on vocabulary frequency lists. This does not mean that teachers or lecturers need to provide students with extensive lists of vocabulary as learning resources; vocabulary should be introduced in context of use.

Another study done by Kusumarasdyati (2006) has shown that Indonesian students tended to use different strategies in understanding difficult words in the process of comprehending reading texts. According to Kusumarasdyati, the different kinds of strategies in understanding the meaning of vocabulary were mainly because of their interest rather than innate strategy use. She added that every learner had their own unique strategy he/she was likely to use in understanding vocabulary which was not familiar to them.

In the light of the foregoing discussion, to ensure the provision of vocabulary in context especially in the classroom applications, language instructors and teachers need to explore various techniques in the teaching vocabulary. Using intensive and extensive reading activities as a means in giving exposures to learners in improving their vocabulary in context seem to be the most practical ways (Cahyono & Widiati, 2015). In this regard, the position of vocabulary in text-books is very critical.

**METHOD**

This corpus-based study focused specifically on the vocabulary size to examine whether the text-book has provided the sufficient input of 2,000 most frequent English words and the distribution of frequency and distribution of the vocabulary. The text-book used was *English Intensive Course for Islamic Studies* (Fitriani et al., 2010). The text-book was selected since it was mandatory and specifically intended for every student in every major in Sekolah Tinggi Agama Islam Negeri Ponorogo in the first year of undergraduate degree.

The analysis was carried out using RANGE software (Nation & Heatley, 2002), a computer program which allows us to obtain the number of words in a text, as well as a
text frequency figure (how often a word appears in a text) and a general frequency figure (the frequency level a word belongs to). The following two categories of word lists, the BNC 1st to 20th 1,000 word families (Leech, 1992) and AWL containing 570 word families (Coxhead, 2000) were used for comparison.

The program includes three different lists: list one represents the 1,000 most frequent words, and two represents the 2,000 most frequent English words, whereas list three includes words that are not found in the first 2,000 words but are frequent in secondary school and university texts. These lists are based on Michael West’s General Service List (West, 1953) and on Coxhead’s Academic Word List (Coxhead, 1998).

There are word lists which are already available for RANGE software. There are Three-ready-made base lists. The first base list (basewrd1.txt) includes the most frequent 1,000 words of English. The second based list (basewrd2.txt) includes the 2nd 1,000 most frequent words, and the third based list (basewrd3.txt) includes words which are not in the first 2,000 words of English but which are frequent in upper secondary school and university texts from a wide range of subjects. All of these base lists include the base forms of words and derived forms. The first 1,000 words consist of around 4,000 forms or types. In addition, the fourth list is the list of words which are not included in the three lists. This list may include less frequent than 14,000-word level, proper nouns, acronyms, abbreviations, alternative spelling, and letters with numbers, exclamations, errors and non-English words (Nation & Heatley, 2002).

RESULTS AND DISCUSSION

This section presents the results and discussion of the results concerning the number of tokens, types and word families, and the lexical distribution of words. This section is organized into five parts in answering five research problems.

The vocabulary present in the EFL text-book under investigation

It is very important to know whether or not text-book has provided sufficient exposure for students to the most frequent word families. This is due to the significance of knowing the 2,000 most frequent word families in understanding 84% of the words used in various types of authentic texts (Hwang & Nation, 1995). The result of the analysis of the vocabulary size is in the text-book is presented in Table 1:

<table>
<thead>
<tr>
<th>Word list</th>
<th>Tokens/</th>
<th>Types/%</th>
<th>Families</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>13823/79.3</td>
<td>1283/50.4</td>
<td>745</td>
</tr>
<tr>
<td>Two</td>
<td>1010/5.8</td>
<td>388/15.2</td>
<td>276</td>
</tr>
<tr>
<td>Three</td>
<td>578/3.3</td>
<td>160/6.3</td>
<td>116</td>
</tr>
<tr>
<td>not in the lists</td>
<td>2026/11.6</td>
<td>717/28.1</td>
<td>????</td>
</tr>
<tr>
<td>Total</td>
<td>17437</td>
<td>2548</td>
<td>1137</td>
</tr>
</tbody>
</table>

As is clear in Table 1, the text-book has provided exposure of vocabulary of approximately 17,437 tokens to the students. This means that the student who read the whole units of the text-book would be exposed to the 17,437 running words from unit 1 until unit 12.
Every single word was considered as one token or running word. For example, if a student reads the word *go* in unit 1, and then read the word *go* also in Unit 1 or other units, the other word *go* is also counted. In this study, it was found out that the word *go* appeared 36 times in the whole units, from unit 1 until unit 12. This means, the student who has read the whole units of the text-book would have been exposed to the word *go* 36 times.

It was also found out that there were 12 times of exposure to the past tense form of the word *go*, which is *went*. As an additional information, the student who has read through the text-book has been given exposure to the perfect form of *go* (*gone*) for 4 times. The remaining question is whether the text-book has provided sufficient exposure to the most frequent 2,000 English words.

**The frequency and distribution of the vocabulary**

It was found out that there are 13,823 running words which are listed in the first 1,000 words making 79.3% of the running words found in the text-book. The results also show that there is total of 2,548 types of the vocabulary exposure. The total 1,137 word families are found in the text-book.

The text-book provides 13,823 running words or approximately 79.3% of the running words which belong to the 1st 1,000 most frequent words. There are 1,283 word-families or 50.4% of the words in the 1st 1,000 most frequent words. There are 745 word-families out of the 1st 1,000 most frequent words and approximately 1,283 types.

The text-book also provides around 1,010 running words or 5.8% of the 2nd 1000 most frequent words. There are 276 word-families which belong to the 2nd 1000 most frequent words, with 388 different types. As can be seen, the text-book provides students with exposure to 1,021 word families from 2000 most frequent words, 79% from word list 1 and 5.8% from word list 2. Students need to be introduced to the other 724 word families from the word list 2.

The great thing about this text-book is that the text-book has provided 3.3% of the 3rd most frequent words, or around 116 word families. This provides the opportunities for students to recognize the less frequent words to improve their vocabulary knowledge.

To conclude, the text-book provides the vocabulary exposure of around 79.3% from word list 1, and 5.8% from word list 2. Therefore, the vocabulary provided in the text-book is approximately 1,021 word families from 2,000 most frequent words or around 1,137 words out of 3,000 most frequent words making the total 1,137 from word list 1, 2, 3 and 4.

The word list which does not exist in the 1st, 2nd or 3rd 1,000 most frequent words is called wordlist 4 or *not in the list*. It is the list of words which is not included in the word list 1, word list 2 and word list 3. This list might include less frequent words than 14,000-word level, proper nouns, acronyms, abbreviations, alternative spelling, and letters with numbers, exclamations, errors and non English words. Types *Not Found In Any List (List 4)* consist of many proper nouns found in the text-book, such as name of a
person (e.g., Abd, Abdul, Abu, Adam, or Adi) and name of a place (e.g., Aceh, Africa). There are also acronyms which fall into the list 4 (e.g., adv as in the adverb).

The top 100 words used in the text-book

The word the is the most frequent used word in the text-book around 1179 times. It is very common English words. It is the definite article. An article is a word (or prefix or suffix) that is used with a noun to indicate the type of reference being made by the noun. Articles specify grammatical definiteness of the noun. The definite article is used to show whether the speaker is referring to things that are known both to the speaker/writer and to the listener/reader (Swan, 2005).

Articles a and an are also frequently used in the text-book. Article a is in the 6th rank with the total around 343 times. While article an is in the 22nd rank with around 94 times of usage. Together with the as article, a, and an are a type of determiner and they are used with singular countable noun (Swan, 2005).

Prepositions are commonly used to show a relationship in space or time or a logical relationship between two or more people, places or things. Prepositions are most commonly followed by a noun phrase or pronoun. The preposition of is also frequently used. It is in the 2nd rank of most frequent word used in the text-book. It is used around 422 times in total. There are over 100 prepositions in English. The other prepositions most commonly used in the text-book under investigation include: preposition in (rank 3/390 times), to (rank 4/383 times), for (rank 13/129 times), from (rank 26/89 times), as (rank 27/83 times), on (rank 29/75 times), at (rank 30,75 times), with (rank 39/67 times), about (rank 49/52 times), before (rank 79/34 times), up (rank 87/32 times).

The words but, either-or are also the example of coordinating conjunctions. In the text-book, the coordinating conjunctions which are mostly used are and but. The coordinating conjunction and was found around 253 times in rank 39. It would be better if the conjunction either-or were added to complement the coordinating conjunction since either appears in the first 1,000 most frequent word, but in the text-book, either is used only 3 times.

The personal pronouns are also found frequently in the text-book. The examples of personal pronouns found in the text-book include I, you, it, they, we, and me. They are often used to refer back to people and things that have already been identified. The word I (rank 10/166 times), you (rank 8/171 times), it (rank 14/127 times), they (rank 20/97 times), we (rank 24/92 times), and me (rank 136/23 times).

The personal pronouns found such as he, she, him and her showed gender. The word he (rank 9/166 times), she (rank 39/67 times), him (rank 114/27 times), and her (rank 171/18 times). The vocabulary he and him were the masculine forms. The words she and her were the feminine forms. The pronouns he is used much more frequently than the pronoun she. The word he (166 times) is used approximately 2.5 times more than the word she (67 times) while the word him (27 times) is used 1.5 times more than the usage of the pronoun her (18 times). The third-personal singular pronoun he, she, him or her is marker to suggest that a speaker is socially engaged and it is recommended that those pronouns are used equally in terms of the number of occurrences.
The personal pronoun you (rank 8/171 times) is often used when referring to the listener or reader. It is both the subject and the object form. The word you can refer to one person or more than one person. It is shown clearly from the context whether you is in singular or in plural form. The word I and me are used to refer to the speaker or writer. I is the subject form and me is the object form. In the text-book, sometimes us is used to refer to me in informal speaking. While they (rank 20/97 times) is used to refer to specific groups of people, things and animals. The words they and them are also used to refer to institutions or authorities, and groups of people in general. The word we (rank 24/92 times) is used to refer to different groups of people, but always including the speaker. The words we and us are used to refer to the speaker and the listener, or the speaker and other people but not the listener, or people in general including the speaker. Within the text-book, the word we sometimes is used to refer to me in informal speaking.

There are also words related to Islamic studies in the top 100 words used in the text-book, for example, the word Allah which is used 75 times. The word Muhammad is repeated 70 times, Islam 57 times, Prophet 44 times, God 35 times, and Moslem 31 times. These Islamic content words are frequently used in the text-book. It is obvious since it is the text-book for Islamic Studies not limited for use by English Department students but for all students in every major at the given college.

There are also abbreviations which are mostly used in the text-book although they are put in the list 4 (not in the list). This list 4 may include words which are less frequent than 14,000-word level, proper nouns, acronyms, abbreviations, alternative spelling, letters with numbers, exclamations, errors and non English words. For example, S appears in the 21st rank and has been mentioned 95 times in the text-book. As can be seen in the text-book, S is often used as the abbreviation of Subject in the structure or grammar section in the text-book.

The distribution of word categories within 2000 most frequent words

There are 14,833 tokens or running words in the text-book which match with the 2,000 most frequent words suggested by Nation (1990) as the best goal for foreign language learners to learn. The target 2,000 most frequent words are the high-frequency vocabulary which learners should acquire to be able to participate in the basic conversation (Nation, 1990). It is clearly seen that the word families employed in the text-book are 1,021 word families. This means that there are still approximately 979 most frequently used word families the text-book does not expose to the students.

The text-book presents a good portion of the vocabulary exposure of the 1st 1,000 most frequent words or approximately 79.3 % of the total running words. In addition, it also presents a good number of the types of the word families. The text-book provides a good exposure up to 74.5% of 1,000 most frequent words to students. The other 25.5 % of the first 1,000 word families which are not employed in the text-book could be added through supplementary materials such as extensive reading materials or other forms of additional materials.
There are 276 word families of the 2nd 1,000 most frequent words within the text-book. It presents students with around 27.6% of the 2nd 1,000 most frequent words. There are about 72.4% word families to explore in the 2nd 1,000 most frequent words.

**Sufficiency of students’ exposure to the most frequent 2,000 English words through the text-book**

The students who use the text-book are exposed to approximately 1,137 word families. This is considered insufficient for the students to get exposed to the most frequent 2,000 English words. The learners still need more exposing to around 870 word-families. It can be construed that it is not sufficient for the students to only use the text-book; they need to have supplementary materials allowing them to have more exposure to the target vocabulary. As can be seen in the analysis, a learner who uses the text-book receives insufficient exposure to the most frequent 2,000 English words since the text-book only presents approximately 1,021 word families. The strength of the text-book is that it presents around 116 word families of the 3rd 1,000 most frequent words.

In summary, the text-book provides vocabulary exposure up to 1,021 word families. It can be concluded that the text-book provides the students with insufficient exposure to the most frequent 2,000 English words.

**CONCLUSION**

The text-book under study entitled *English Intensive Course for Islamic Studies* uses the vocabulary of around 17,437 tokens. This means that the students who read the whole units are likely to get exposed to 17,437 running words. The text-book provides the students with vocabulary exposure of approximately 79.3% against word list 1 (first 1,000 most frequent words) and 5.8% against word list 2 (second 1,000 most frequent words). Therefore, the vocabulary used in the text-book was approximately 1,021 word families of 2,000 most frequent English words. This text-book also provides 3.3% of word list 3 (the 3rd 1,000 most frequent words) or around 116 word families.

The text-book provides approximately 13,823 tokens which are listed in the first 1,000 words, making up to 79.3% of the running words. The result also shows that there are 2,548 types of vocabulary. The total of 1,137 word families is found in the text-book. The text-book provides vocabulary exposure of approximately 1,021 word families against the 2,000 most frequent English words. This number is insufficient for the exposure to the most frequent 2,000 English words.

The result of the study has important pedagogical implications for materials developers and teachers to provide learners with more vocabulary exposure. Learners need more vocabulary exposure from text-books and other sources or supplementary materials to provide the target 2,000 most frequent English words which are fundamental to function in a foreign language as suggested by Nation (1990).
REFERENCES


