Receptive Vocabulary Knowledge and Reading Skills of Indonesian Prospective EFL Teachers

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Abstract Since the introduction of Genre-Based Approach (GBA) in language teaching in Indonesia, teachers’ reading skills play a much more critical role in the success of their job. However, judging from the vocabulary levels of English texts used in textbooks and examinations, they are now faced with serious obstacles. For this reason, this research sought to reveal (1) the student teachers’ vocabulary knowledge, (2) their skimming skill, (3) their scanning skill, (4) the correlation between students’ vocabulary knowledge and skimming skill, and (5) the correlation between students’ vocabulary knowledge and their scanning skill. The population of the research were students of the fifth semester at an English education department. It randomly took 53 (50%) out of 106 students of the semester. The data were obtained through two kinds of test namely Nations’s Vocabulary Size Test 14000 and reading test. The results revealed that (1) the vocabulary knowledge of the average students was 2800 words, which indicated that they could only cover 86% of the running words in average texts, (2) the skimming score of the average students was 6.64 at the scoring range of 1 – 10, (3) the scanning score of the average students was 6.3, (4) there was no significant correlation between the vocabulary knowledge and the skimming skill of the students (the correlation coefficient of .182 is lower than r-table value of .279), and (5) there was a significant correlation between vocabulary knowledge and scanning skill (the correlation coefficient of .443 is higher than r-table value of .279). One of the most important findings here was that vocabulary knowledge influences scanning skill more than skimming skill. Consequently, this study offers a basis for consideration for policy makers as well as English teachers of the inclusion of vocabulary load in Indonesian English textbook, the implementation of form-focused method in English classes, and more careful attention to vocabulary load when developing teaching materials.

Keywords Reading, Skimming, Scanning Skills, Vocabulary Knowledge

1. Introduction

Since the introduction of GBA into the teaching of English in Indonesian schools, the role of texts has been indispensable. This is particularly because, in the classrooms using GBA, the focus of the teaching and learning is on understanding and production of a certain type of text. GBA classrooms typically starts with the entire text as the focal unit rather than parts of the text. GBA proponents emphasize the higher level of order and pattern of language than merely the sentence-grammar or the organization of the sentences. In other words, teachers and students start the class with an effort to understand an entire text and end it with the students’ ability to produce the text. One of the most important rationales for the adoption of GBA in Indonesia is that it facilitates clear links between students’ in-class activities and their need to communicate beyond the classroom [1].

Given the nature vocabulary plays a central role from the beginning as it allows the students to first understand the texts. As commonly understood, a class using GBA commences with the presentation of a text to the students for comprehension activity. In this situation, sufficient knowledge of vocabulary is of course a must. This is especially true when it comes to the fact that the texts used in Indonesian English textbooks are generally authentic, i.e. texts written by and for native speakers. For Indonesian learners this type of texts is very hard to digest, as it contains considerable amount of unknown words, which makes reading a discouraging task. According to Aziez and Aziez [2], the average vocabulary levels of Indonesian English textbooks were at K-4000 for junior high schools
and at K-5000 for senior high schools. This means that for
the junior high schools students, they need to know at least
4000 words, while senior high school students need to
master at least 5000 words to sufficiently comprehend the
texts contained in the textbooks. These vocabulary levels
are of course alarming for Indonesian students, since they
live in a country where English is not spoken even in
school contexts and they first meet English in junior high
school. As a matter of fact, those levels are not only
problematic for students, but for teachers as well. To
Indonesian English teachers, English is generally just a
“tool” to do their job, not a means of every day
communication. Therefore, it is very much possible that
they also lack the necessary vocabulary.

If vocabulary problems among students and teachers are
not addressed systematically, it would be difficult to
implement English instruction using GBA, in as much as it
starts with text comprehension and ends with text
production. This is especially because to comprehend a text,
one needs to have sufficient vocabulary. A large number of
research has indicated that vocabulary knowledge is
closely related to reading comprehension [e.g. 3-5]. In
other words, comprehension of a text depends very much
on the knowledge of meanings of every word running in a
text [6]. The more words one knows, the better possibility
for him to comprehend a text and the opposite.

Therefore, the current study tries to address the
vocabulary knowledge and reading skills of English
Department students in a private university in Indonesia.
These students are English teachers in two years time. However, considering the limitations of the resources, the
study focuses on the following research questions:
1. What is the vocabulary knowledge of Indonesian
prospective teachers?
2. What is their scanning skill?
3. What is their skimming skill?
4. Is there any significant relationship between their
vocabulary knowledge and scanning skill?
5. Is there any significant relationship between their
vocabulary knowledge and skimming skill?

2. Review of Relevant Research

The use of a language cannot be separated from the use
of vocabulary. In reading, the importance of vocabulary is
even more apparent because readers cannot predict what
words they would meet in the texts. Therefore, the more
words the readers know the better possibility they have to
successfully read the texts. As consistently revealed by
large body of research, vocabulary is indeed significantly
related to reading comprehension moreso than other
components such as grammar [3, 5, 7]. Laufer [8] further
writes, “No text comprehension is possible, either in one’s
native language or in a foreign language, without
understanding the text’s vocabulary.”. Therefore, without
the knowledge of word meanings, foreign language
learners will have difficult time reading texts [9].
According to Balota [10], the main role vocabulary plays in
language is to deliver meaning. Richards & Rodgers [11]
concludes that vocabulary seems to be a crucial factor in
the success of comprehending a text. Laufer [8] even
strongly believes that foreign or second language reading
comprehension is influenced by knowledge of words alone.
Other researchers [12] also acknowledged the strong
correlation between word knowledge and reading
comprehension. They stated that vocabulary knowledge
proves to be the most recognisable subcomponent of
reading skill. As Masrai [13] puts it, the robust association
between vocabulary and reading comprehension has led
many researchers to claim that vocabulary size is the
determinant factor for reading comprehension among L2
learners. As a matter of fact, the effect of vocabulary is also
found to be strong in other skills, like listening. Atas’ [14]
research on the relation between receptive vocabulary and
listening skill, for instance, found that as the receptive
vocabulary knowledge of the participants increased, their
listening comprehension skill also increased.

Some researchers (e.g. 15-17) make distinctions
between receptive - productive vocabulary and passive -
active vocabulary. Nation [15] states that the distinction
between receptive and productive vocabulary is rooted
from the differentiation between listening - reading
(receptive skills) and reading - writing (productive skills).
Corson [16] on the other hand, differentiate the two on the
basis of use rather than knowledge, creating active and
passive vocabulary, where the latter includes active words
that are partly known, belongs to low-frequency, not
readily easy for use, and which is usually avoided.
According to Oberg [18], the aforementioned definitions,
however, lack practical applicability in an L2 area. Because
of that, Oberg [18] further proposes a more acceptable
definition applying Nation’s [15] scope of
receptive/productive vocabulary distinction:
1) receptive vocabulary knowledge entails knowing the
word’s L1 equivalent, being able to recognize the
word when heard and/or seen and/or written, and
knowing the word’s associated concept;
2) productive vocabulary knowledge entails being able
to use the word to express its meaning, being able to
say and/or write the word, and being able to use
the word correctly in an original sentence. And
concept of vocabulary knowledge in the current study
refers Nation’s distinction above.

The question which then arises is how many words one
needs to know in order to successfully read general texts?
Hirsh and Nation [19] suggest that language learners might
need to know more or less 5000 words to read a novel
which is written for native speakers, but preferably
10,000[20]. Another number was proposed by Nation [20]
when suggesting that in order to have good comprehension,
learners need to know 4000 word families, which includes
2000 high-frequency words, 570 interdisciplinary
academic words, around 1000 technical words, and some low-frequency word families. A study by Milton and Hopkins [21] claimed that language learners would need a vocabulary of about 4,500 – 5000 word families to sufficiently cope with the highest level (C2) on the Common European Framework of Reference (CEFR) [22] reading descriptor. Studies by Hu and Nation [23] and Nation [20], however, showed that a much higher level of vocabulary is needed to have a good comprehension. They estimated that learners would require to know around 8,000 – 9,000 words to be able to read a variety of texts.

An other important aspect regarding the vocabulary knowledge and successful reading is the minimum word knowledge in a text. Nation [15] claims that a learner needs to know at least 95% of the words in a text. The 95% word knowledge here implies that the learner may have unknown words of up to 5%, whose meaning can presumably be guessed by using the surrounding 95% of the words in the text. Consequently, with that number learners will become independent readers, who can read a text without having to consult a dictionary or teachers for unknown words. However, other studies show different results. An experiment by Hu and Nation [23], for instance, indicated that learners need to know at least 98% of the words in a text read. This is the same as a density of 1 unknown word in every 50 words in a text. A rather different number was shown in Bonk’s [24] study in which learners who had less than 80% of the words in a text would generally have poor reading ability.

Using Nation’s [15] research result above, it can be assumed that in Indonesian context English teachers would have to know at least 3800 words for those teaching in junior high schools and 4750 words for those teaching in senior high schools. This is because according to the aforementioned study [2], Indonesian English textbooks for junior high school are at K-4000 and for senior high schools are at K-5000. If they know less than 3800 and 4750 for junior and for senior high school teachers respectively, they would find reading the textbooks a formidable task.

3. Method

3.1. Setting

There are two English departments in Universitas Muhammadiyah Purwokerto, one being English Education Department, which is running under the Faculty of Education and the other English Literature Department, which is running under The Faculty of Letters. In English education department, English is not used in all subjects. English is typically used only in language skills subjects with varying degrees of combination with Indonesian. While in theoretical subjects, despite encouragement to use only English as a medium of instruction, bahasa Indonesia or its combination with English is still commonly used in classrooms.

3.2. Participants

There were 106 students in the department of English Education for batch 2018 from which 53 % were taken as participants in this research. The participants were from two intact classes which were chosen randomly from the total of four classes by means of lottery.

3.3. Instruments

To collect the data, two kinds of test were used, namely Nation’s [15] Vocabulary Level Test and Reading Test, with which the latter measures the skimming and scanning skills.

3.3.1. Vocabulary Size Test (VST)

The vocabulary levels test was first developed by Nation [25] and then revised by Schmitt et al. [26]. The revised edition of VLT is designed to measure both first language and second language learners’ written receptive vocabulary size in English [26]. This test consists of five levels (2,000 Word Level, 3,000 Word Level, 5,000 Word Level, 10,000 Word Level) and Academic Vocabulary. According to Hirsh and Nation (1992), English learners require to know around 5,000 words to comprehend a text well. Therefore, this research used the 5,000 word level. There were 30 items in the test. And the participants’ estimated vocabulary knowledge is determined by dividing the correct replies by 30 (the total of the items) and multiplied by 5000.

3.3.2. Reading Test

To measure the participants’ scanning and skimming skills, a collection of 20 multiple-choice items taken from the Test of English as Foreign Language (TOEFL) was used. Six reading texts and 20 questions measuring scanning and skimming skills were presented to the participants. Before the test administration, the test had been piloted to 25 students to ensure the validity and reliability. The analysis showed that all items in the test were valid and reliable. In the test administration, participants were given only 30 minutes to complete the test. Test sheets had been distributed first before they started doing the test.

3.4. Data Analysis

Data of this research was analysed using the SPSS program version 16. Two statistical procedures were used, the descriptive and inferential. The inferential statistics used in this study was Pearson Product Moment Correlation analyses. The statistical procedure used two-tailed product-moment correlations where scores of the reading skills (skimming skills and scanning skills) and vocabulary knowledge are computed to find out whether
there was a significant relationship between the two variables.

4. Results and Discussion

4.1. Estimated Vocabulary Size

As demonstrated in Table 1 below, from 53 participants, the smallest vocabulary size was 1500 words and the biggest was 4500 words. None reached 5000 Word Level, which meant that their word knowledge cover only below 91% of the words running in a text. Meanwhile, the average vocabulary size of the participants was 2800 words.

As exhibited in Table 2, with 2800 words they are likely to know only 86% of the words in any texts.

According to Chujo’s[27] table above, for a person to gain 95.2 coverage, which is the minimum number to comprehend a text, he needs to know at least 9000 words.

4.2. Skimming and Scanning Skills

The lowest score obtained in the skimming test was 3 and the highest was 10. The average score of skimming skill test was 6.64 as indicated in Table 3 below.

The result of scanning test was also not too much different from the skimming skill test. The lowest score of the scanning test was 3 and the highest was 10. As in the skimming test the score 10 was obtained by only one student.

Using the range of 1-10, the average score of the students’ scanning skill was 6.3 which might mean they had a rather good scanning skill.

4.3. Correlation between Vocabulary Size and Skimming and Scanning Skills

In order to determine the correlation between students’ vocabulary size and skimming skill calculating the raw score of the VLT, skimming skill test by using Pearson Product Moment correlation was performed. The computation indicated a coefficient correlation of .182 in the level of significance .05 with the number of sample of 53 and the value of r table was .279. The analysis showed that the value of coefficient correlation was not higher than r-table value (.182 < .279). This indicated that vocabulary size did not significantly correlate with skimming skill. Diagram 1 depicted the correlation in the scatter form.
The red line indicated the correlation between the two. It did not increase significantly though the correlation was positive. Meanwhile, the correlation coefficient between vocabulary mastery and scanning skill was 0.443 at the significance level of 5% and the number of sample was 53. The coefficient was higher than the $r$ table, which was 0.279. This showed that there was a positive and significant correlation between vocabulary mastery and scanning skill. The scatter diagram 2 displayed the correlation between the two.

The red line in the diagram showed a significant increase which again indicated a significant correlation between vocabulary mastery and scanning skill.

As shown in the result of data analysis, the actual mastery of English receptive vocabulary among students’ mastery was at 2800 words. The highest vocabulary size among the students was 4500 words and the lowest was 1500. Most students’ vocabulary were between 2000 up to 3200 words. With this amount of vocabulary, they would likely to know only 84% up to 87% of the running words in general texts referring to British General Corpus [27]. This text coverage is much less than necessary to sufficiently comprehend a text. Indonesian prospective teachers will find reading a formidable task, as they will find one unknown word in every 7 of the words in a text. This is much higher than that is required for an effective reading. According to Nunan [28], a person will still find reading bearable task when he meets one unknown word in every twenty words, assuming that the twenty words surrounding the difficult word will help him guess the meaning.

The impact of the vocabulary knowledge was demonstrated in the study. In the skimming and scanning tests using passages at the average length of 140 words, the average score of skimming test was 6.6, while the average score of scanning test was 6.3 in the score range of 1 to 10. This showed that students find it difficult to elicit the main idea form the texts. This was relevant with Chujo’s [27] study on a sample of students knowing 3000 words. In the study, Chujo [27] found that at the knowledge of 3000 words and with the texts at 140 word length, learners were capable of covering only 87% of the running words. With this vocabulary knowledge in hands like this, we can predict that the prospective teachers will find difficult time during the class. They will have to keep looking up in the
dictionary for words they do not know during teaching. This is of course not a good situation considering the fact that Indonesia is at present implementing a curriculum which puts Genre Based Approach in practice, which follows that texts play a dominant role.

With the skimming and scanning scores (6.6 and 6.3) found in this study, we know too that respondents find scanning activities more challenging than skimming activities. This might be because when skimming respondents can use the words, they know more to guess the gist of the text. When scanning however, they had to use the words in the text more intensively, because they had to identify specific information required in the test. In this instance, respondents had to rely much on words they know to find the correct specific information in the text.

The interesting thing revealed in the analysis is that students’ vocabulary mastery correlated to scanning skill but was unrelated to skimming skill. The correlation coefficient between students’ vocabulary mastery and skimming skill was .182 or lower than the value of r table (0.279). Whereas, the correlation coefficient between students’ vocabulary mastery and scanning skill (0.443) was higher than r table.

The results may be explained that the positive correlation between respondents’ receptive vocabulary knowledge might be due to the fact that according to a relevant theory [29], to elicit an idea in a text, someone needs to know a number of words which at least cover 90% of the running words in the text. With 2800 words they currently know, they know only 87% or below the requested 90% knowledge of the running words in a text. As a result, the average of students’ skimming test score was only at 6.6. This finding was also congruent with Harmer’s [30] theory which asserts that in scanning activities, someone needs to activate the vocabulary related to visuals. Besides, generally speaking, the words and phrases which are asked do not occur in the texts, because of that readers need to know the synonyms and parallel expressions.

A rather different picture was shown by the study, where respondents’ vocabulary knowledge did not correlate significantly with the skimming skill. According to Arundel [31], this insignificant correlation between students’ vocabulary knowledge and skimming skill was likely to occur due to the fact that in skimming activities someone might use short cut to get the idea of the text. The students might use the title, the introductory paragraph, the first sentence of each paragraph, or the last paragraph of the text [31]. That was the reason why the students’ vocabulary knowledge was not an indispensable requirement.

5. Conclusions and Suggestions

The results of the vocabulary size test showed that the students had insufficient vocabulary to read a text well. The average of students’ vocabulary size was 2800 words. The number of students’ vocabulary size was approximately equivalent to 86% of text coverage. Meanwhile, to be able to get an idea of a text, someone theoretically needs to know at least 90% of the words in the text. Some researchers even proposed higher word coverage for an independent reading, 95%. In other words, for Indonesian case the students need to know 4000 words.

With regard to skimming and scanning skills, the study found that the respondents’ skimming and scanning test scores were 6.6 and 6.3 respectively in score range from 1 to 10. For prospective teachers these scores are of course less than satisfactory.

As for the correlation between the vocabulary knowledge and skimming and scanning skills, the analysis using the product moment showed that with the correlation coefficient of .182 and lower than r value of .279, vocabulary size did not correlate to skimming skill. However, for the scanning skill the analysis showed that the correlation coefficient was .443 or higher than the r table (.229) which means that the students’ vocabulary size correlates to scanning skill.

With the above data in hands, some measures need to be done. Firstly, the inclusion of vocabulary load in the Indonesian English curriculum and the load should of course be distributed systematically across the education levels. Secondly, due to the existing approach to the teaching of English in Indonesia, which focus on meaning rather and negate form, the implementation of form-focused method seems to be a fair compromise. Thirdly, the attention on vocabulary load must be given when developing teaching materials, including textbooks in order that texts which are contained in the books are readable to students and are sequenced in an ascending order across levels.

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