The Correlation between Students' Vocabulary Mastery and Students' Reading Comprehension

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Abstract

Vocabulary is one of essential language element which help student to comprehend the reading text. Students are able to understand what they read easily if they have amount of vocabulary. Therefore, this research was aimed to explore the correlation of student' vocabulary mastery and reading comprehension at the second Grade of SMPN 1 Kolaka. This research used quantitative descriptive design. The design of this research was quantitative descriptive. The population of this research was the second grade students of SMPN 1 Kolaka which was consisted of eight classes. The total number of the population was 206 students. To take the sample, the researcher used purposive sampling that was class VIIIB, it was comprised of 26 students. To gather the data, the researcher used two kinds of test; vocabulary test and reading test. The data was analyzed by using the formulation of Pearson Product Moment Correlation Coefficient. The result of data analysis showed that r_{xy} was 0.705 was higher than r_t was 0.404 with the degree of freedom (df=N-nr) was 24. Meanwhile, from the result of hypothesis testing was α ≠ 0 or r_{xy} was higher than r_t which meant the score of vocabulary and reading was straight comparable. So that, H_0 and H_2 was rejected and H_1 was accepted. It was indicated that there was a positive correlation between students' vocabulary mastery and students' reading comprehension at the second grade of SMP Negeri 1 kolaka in academic year 2017/2018.
Keywords: *Correlation, Vocabulary Mastery, Reading Comprehension*

1. Introduction

Vocabulary is defined as one of components in mastering any language skill for instance Reading, Writing, Listening, and Speaking (Bahri, 2018). To function more effectively in using the language especially in academic environment, learner must be aware about the sufficient of vocabulary knowledge and vocabulary size. As mentioned by Viera (2017) regardless the level of students' in grammar and pronunciation, a solid foundation of vocabulary knowledge can bring successful users of English in any environment. He further explained that learning vocabulary does not only mean the learning of new words but also to know their functions and applicability to different contexts and situations. In other words, the comprehension and production of the language depend on the simultaneous and complex process of extracting and constructing utterances through the use of appropriate lexical combinations, in the appropriate time and appropriate place. Further Alqahtani (2015) reveled that Learners must not only learn the language as an abstract system of vocal signs or as if it were a kind of grammar text with an accompanying dictionary, but it must be learned as a tool that allows learners to know what utterances are useful to communicate effectively, and know what utterance is or is not appropriate to use in a given context.

Vocabulary size referst to the number of words that a learner should know to in order to perform better in English, limited vocabulary in language impedes successful to

master English. Nation (2006) in Sudarman & Chinokul (2018) estimated that in order to perform the language effectively without using any comprehension tools, we need to have 6,000 to 7,000 word-family vocabulary for spoken texts and around 8,000 to 9,000 word family vocabulary for written texts. On the other side, Renandya (2018) estimated that students need 3,000 to 5,000 thousand words in order to be able to understand un-simplified text with sufficient comprehension.

In reading skill vocabulary plays in important role to assist learner to understand the material and gain information from what they read. As revealed by Bishry (2018) reading is a process that builds the understanding in interpreting the meaning of the text. To begin any other language skills, learner should start from reading to upgrade knowledge because learner cannot speak or write something before they read and comprehend the text. As well as Furqon 2013 stated that to get some information in reading text, the learner should be taught , the effectively and efficiently through several skills such as making prediction of an important idea in the text or finding out the key words. By doing this learner can cover they vocabulary weakness.

Vocabulary mastery and Reading comprehension has a strong connection, In understanding the text, the learner are expected to have sufficient vocabulary especially for students who learn English as foreign language. Faliyanti (2015) explained that Vocabulary plays an important role in comprehending reading text. To be successful in Reading, students need to master many kinds of vocabulary which facilitate them to understand the text. Armbruster (2002) confessed that knowledge of the meaning of word is strongly related to reading comprehension process. The students are going to be easier in understanding English text when they have sufficient vocabularies. It means that one needs more vocabularies so that they can recognize the meaning of the sentence. Besides, Zhang & Annual (2008) added that vocabulary difficulty strongly influences the Reading comprehension. Lack of vocabulary affect students got hard to organize the meaning in the text and unable them to absorb information. In line with Qarqez & Ab Rashid (2017) who stated that considered as one of a crucial skill in language learning, reading can be difficult if students encounter some unfamiliar words or ambiguous words in the text. Thus, teacher needs to find effective way to cope that problem in order to engage learners in a meaningful reading experience.

As the initial objective, this research was intended to find out whether or not students' vocabulary mastery and students' reading comprehension have a correlation, to get the data the researcher engaged 26 students at the second grade of SMPN 1 Kolaka academic year 2017/2018. Based on the observation, in teaching and learning process especially in Reading, students must be able to understand the main idea, students also should interpret the reading text explicitly and implicitly, students also should know the function of the text in reading, and the last students must be able to understand those vocabularies in the text provided. Unlikely, most of students got difficult to understand the reading text in English since the biggest problem that they faced were lack of vocabulary. Sometimes students were not able to identify the meaning of the text and the worst they missed important information from the text. Moreover, the definition of each words are different in particular context so that the students only relying on dictionary to assist them to identify the meaning of the text

In regard to the important of finding out the correlation between vocabulary and reading comprehension, there were several previous researcher conducted the similar research. First was Faliyanti (2015) revealed that vocabulary and reading achievement of student was fair, it's meant that vocabulary score influence to students' reading comprehension. No students get good score in reading unless their vocabulary score was good as well. Second was Furqon (2017) concluded that vocabulary mastery was

important in learning foreign language and vocabulary mastery helps the students to comprehend the text. The last researcher was Bahri (2018) found that vocabulary mastery was important in reading comprehension since the higher vocabulary score students got the better reading comprehension they had.

Based on the explanation above, vocabulary mastery and reading comprehension has a strong relationship, therefore researcher was intended to find out the correlation between students' vocabulary mastery and their reading comprehension at the second grade of SMPN 1 Kolaka.

2. Method

This research was conducted at second grade of SMPN 1 Kolaka. The method this research used quantitative method. There were two variable measured in this research; independent variable and dependent variable. Independent variable (X) was students' vocabulary mastery and dependent variable (Y) was students' reading comprehension. In taking the sample, the researcher used purposive sampling. The class chose was class VII B that consists of 26 students. To collect the data the researcher administered two kinds of test; vocabulary test and reading test. Both of the tests involve 20 questions. In vocabulary test, the students answered the questions based on the elements of vocabulary such as; collocation, word grammar, meaning in context (synonym and antonym), and derivation. While in reading the questions were focused on identifying mind idea, identifying generic structure, identifying language feature, and identifying social function. In analyzing the data, the researcher used either descriptive statistic or inferential statistic. Descriptive statistic was used to determine and calculate the students' score in vocabulary and reading. Meanwhile, inferential statistic applied to find out the correlation between vocabulary mastery and reading comprehension.

3. Results

3.1. Findings

After administering vocabulary test and reading test the researcher got

Table 1. Classification of Students Score of Vocabulary Mastery

No	Classification	Interval score	Frequency	Percentage
1	Very Poor	00-39	0	0
2	Poor	40-55	3	11.4 %
3	Fair	56-65	9	34.2 %
4	Good	66-79	2	7.6 %
5	Very Good	80-100	12	45.6 %
	Total		26	100 %

Table 1 was the classification of students' vocabulary mastery. It showed that from 26 students there were 12 students (45.6%) categorized as very good with the interval score 80-10. Then, there were 2 students (7.6%) indicated as good with the interval score 66-79. Next, based on the table there were 9 students (34,2%) classified as fair with the interval score 56-65. There were 3 students identified as poor with the interval score 40-55. The last was, none of the students categorized as very poor. So that, from the result of vocabulary test, the students vocabulary mastery in in very good category.

Table 2. The Classification of Students' Reading Comprehension

No	Classification	Interval score	Frequency	Percentage
1	Very Poor	00-39	0	0
2	Poor	40-55	5	19 %
3	Fair	56-65	6	22.8 %
4	Good	66-79	10	38 %
5	Very Good	80-100	4	15.2 %
	Total		26	100 %

Based on the table, from 26 students there were 4 (15.2%) students in very good category with the interval score 80-100. Students categorized as good consists of 10 students (38%) with the interval score 66-79. There were 6 students (22.8%) in fair category with the interval score 56-65. There were 5 students (19%) classified as poor category with the interval score 40-55. The last was none of the students covered as very poor category. Therefore, it concluded that students' score in reading comprehension was in very good category since most of the students got score around 66-79.

After analyzing the students' score classification on vocabulary and reading, also the researcher analyzed the correlation between students' vocabulary Mastery and their Reading Comprehension used Pearson product moment formula, the result shown below;

$\sum X$ =1880 $\sum Y$ = 1745 $\sum XY$ =128972
$\sum X^2$ =141150 $\sum Y^2$ =120125

Where:

X   = Data of Students' Vocabulary Mastery
Y   = Data of Students' Reading Comprehension

By using formula of product moment, the correlation between vocabulary and reading was found as follows:

$$R_{xy} = \frac{N \sum XY - (\sum X)(\sum Y)}{\sqrt{(N\sum X^2 - (\sum X^2))(N\sum Y^2 - (\sum Y^2))}}$$

$$R_{xy} = \frac{26 \sum 128972 - (1880)(1745)}{\sqrt{(26\sum 141150 - (\sum 1880)^2)(26\sum 120125 - (\sum 1745)^2)}}$$

$$R_{xy} = \frac{3353272 - 3280600}{\sqrt{(3669900 - 3534400)(3123250 - 3045025)}}$$

$$R_{xy} = \frac{72672}{\sqrt{(135500)(78225)}}$$

$$R_{xy} = \frac{72672}{\sqrt{10599487500}}$$

$$R_{xy} = \frac{72672}{102953.81246}$$

$$R_{xy} = 0.705$$

The formula above described that the correlation between students' vocabulary mastery and students' reading comprehension, since the data distributed normally, this research used Pearson product moment formula. From the students' score both of vocabulary and reading none of them got 100. The highest vocabulary score was 90, while students got 85 as the highest score in reading. For the lowest score student got 40 in vocabulary test and the lowest score in reading was 50. After computing those score used Pearson Product Moment the researcher got r_{count}= 0.705 which was classified as a strong correlation (Sugiyono, 2013).

In addition, a strong correlation could be seen by the value of correlation coefficient r_{count} was higher than the value of r_{table} (0.705>0.388) at the significant level 5% and df=24. Hence, it concluded that there was a positive correlation between students' vocabulary mastery and their reading comprehension at the second grade class VIII B of SMPN 1 Kolaka

3.2. Discussion

Based on the result of analysis the researcher found that there was a positive correlation between students' vocabulary mastery and students' reading comprehension. The statement was indicated by the the value of r_{count} was higher that r_{table} (0.705>0.388) on the significant level 5%. Thus, Null Hypothesis (H_0) which justified there was no correlation between vocabulary mastery and reading comprehension was rejected and H_2 which clarified there was a negative correlation between vocabulary mastery and reading comprehension was rejected. While, the Alternative Hypothesis (H_1) was accepted which declared there was a positive and significant correlation between vocabulary mastery and reading comprehension at the second grade of SMP Negeri 1 Kolaka.

Vocabulary mastery and reading comprehension have a strong connection; vocabulary can measure how well students' understand the reading text. As stated by Scott (2010)," Vocabulary knowledge is one of the best predictors of reading comprehension, among first and second grade students' reading comprehension can be predicted by vocabulary". It means that vocabulary plays as essential aspect to help students in interpreting the meaning of the text. If the students have a large extent of vocabulary they got easier to grasp the idea from what they read (Viera, 2017). As mentioned by Qarqez & Ab Rashid (2017) students were able to have meaningful reading experience if they can deal with some of the problems that exist in reading especially those related to vocabulary mastery likes the large number of unfamiliar words and ambiguous words. Therefore, to cope with that problems teacher need to find out effective and efficient way to improve students' vocabulary mastery in order to engage students with a meaningful reading experience. Vocabulary contributes greatly in the process of comprehending the text, limited vocabulary has impact on difficulty to apprehend the content of the text and also it impact to the students' motivation in reading. Sometimes, the students were not eager to read a text because they found so many unfamiliar words in the text and to get the idea of the text they must open dictionary to find the meaning of each words.

Bahri (2018) stated that lack of vocabulary is a big obstacle in reading comprehension. So that, it is necessary for students to focus on their vocabulary development. One of the best efforts which may be made by the students to improve vocabulary is by improving their reading habits and frequency of reading, because the more one reads the more vocabulary one will learn and know. It is generally known that to be a skillful reader needs effort and the skills will develop automatically if one reads a lot. Students should also learn techniques and games for building vocabulary. To English teachers Faliyanti (2015) suggested that they should be aware of their students" reading

comprehension problems both linguistic and non-linguistic and be ready to help them by introducing and practicing efforts to overcome them. Regarding not knowing the meaning of new words as the major reading comprehension problem, teachers are expected to encourage and support their students to improve their vocabulary knowledge as quickly as possible.

As we know that reading activity is a process to get information from reading sources likes textbook, newspaper, magazine, etc. To absorb the meaning form what being read students not only require identifying the main idea or guessing the meaning of the text, but students should have vocabulary knowledge which facilitated them to interpret the text meaning. It is in line with Duff, Tomblin, Catts (2015) who revealed that knowing at least 90 percent of the word enables the reader to get the main idea from the reading and guess correctly what many of the unfamiliar words mean. In addition Zhang & Annual (2008) confessed that lack of vocabulary strongly influence the students in understanding the text. It means that increasing vocabulary mastery can be followed by the increasing of students' comprehension in reading. In reality, the students' vocabulary mastery is necessary to improve for the sake of raising the reading comprehension achievement. When the student has good vocabulary mastery and their reading comprehension achievement is still poor,it is caused by other factors that have higher influence in increasing the students' reading comprehension achievement. Therefore, the success of increasing the students' reading comprehension achievement is not only determined by the students' vocabulary mastery but also other factors which are not discussed in this research.

4. Conclusion

This research aimed to find out the correlation between students' vocabulary mastery and their reading comprehension.

Referring to the result of analysis and the discussion elaborated in the previous session, it found that there was a positive correlation between students' vocabulary mastery and their reading comprehension at the second grade class VIII B of SMPN 1 Kolaka. It was indicated by the mean score of students' vocabulary mastery was 72.30 and the mean score of students' reading comprehension was 67.11. From the mean score, it concluded that both of the scores were in good category, so that the increasing of students' vocabulary must be followed by the increasing of their reading comprehension. In addition, the coefficient correlation between students' vocabulary mastery and reading comprehension was 0.705, it means that coefficient correlation has a strong correlation. Further, from the result of hypothesis test can be synthesis that $\rho \neq 0$ or r_{xy} was bigger that r_t. So H_0 was rejected and H_1 was accepted. Thus, the researcher concluded that vocabulary mastery gave a contribution to understand the meaning of the text and to absorb information from the reading text especially at the second grade class VIIIB of SMPN 1 Kolaka academic year 2017/2018.

Since students' vocabulary mastery positively contributes to students' reading comprehension, the researcher greatly suggested to the students at the second grade class VIII B of SMPN 1 Kolaka to focus on improving their vocabulary mastery, the effort that may be used for students as vocabulary building was by increase reading habits because the more one read the more students learn vocabulary, further students also can learn some techniques or play a game which build their vocabulary.

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