

## **The correlation between students' vocabulary mastery and their reading comprehension**

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### **ABSTRACT**

The goal of this research is to find the objective condition from the correlation between students' vocabulary mastery and students' reading comprehension which was observed and analyzed from SMA N 1 Bandar Lampung. Moreover, the purpose of this study is also to get the information and the empirical data about the correlation of students' vocabulary mastery and their reading comprehension. The populations of the research are 178 students and 36 students were being the sample of the research. All of the objects are from the second semester of IPA 5 SMA N 1 Bandar Lampung. This research was using correlation through the application of quantitative methods by collecting the data from the test. According to the result of the analysis and statistical calculation, it is found that  $r_{xy}$  is 0.678 and  $r_t$  is 0.329 and 0,339 with the degree of freedom (  $df=N-nr$  ) is 34. By comparing the values of  $r_{xy}$  and  $r_t$ , it means that  $r_{xy}$  is bigger than  $r_t$  and the statistic hypothesis states: If  $r_o > r_t$  significance: there is correlation and  $H_a$  accepted. If  $r_o < r_t$  non signification: there is no correlation and  $H_a$  is rejected. The result of hypothesis is  $r_{xy}$  bigger than  $r_t$  which means the alternative hypothesis is accepted. Based on this finding from this study, it can conclude that having more vocabulary or vocabulary mastery significantly affects the comprehension of the students reading activity. Moreover by having many vocabulary the students' can easily get the information and fun story written in English which finally in can enrich their knowledge by reading a lot of books.

**Keyword :** *Correlation, Vocabulary Mastery, and Reading Comprehension.*

### **I. INTRODUCTION**

Studying English has become a necessity because it is considered a global language. Therefore, English is used as an official language almost all around the world. According to Nunan (2010) as a foreign language, English is an important language in the world. As different people from different parts of the world speak various languages, by having an international language like English, people from different parts of the world can communicate with each other easily.

Some skills are promoted by language, they are receptive skills, listening and reading and productive skills speaking and writing (Haycraft, 1978). Reading is the process of interpreting a message. It means that reading can help the students to expand their knowledge about the text and enrich their information easily. Besides, English consist of some language components which can be taught to the students. Those components are vocabulary, pronunciation, grammar, structure, phonology. The students can get much information from those above components. In education, English is one of the foreign languages used to improve students' ability. As quoted in Law on The National Education System (2003, p. 13), "Foreign

language can be used as the language of instruction in a particular educational unit to support foreign language learners". That is the most important reason why English is learned at school.

Based on River (1983), obtaining sufficient vocabulary is essential for the successful use of a second language because, without a large vocabulary, we will not be able to use the structures and functions we might learn to understand communication. Suyanto (2007) states that vocabulary is one of the English components to link the four skills of listening, reading, speaking, and writing. To communicate well in English, students should master several words and should know how to use them accurately. As stated by Ratnawati (2006), vocabulary consists of the knowledge of meaning as the main component of a language, it should be taught together with reading, structure, and conversation. So, ideally, vocabulary should be part of the reading course because one needs the mastery of vocabulary to comprehend the reading passage.

Besides the students' vocabulary mastery, Reading as one of the skills that need vocabulary mastery means perceiving a written text to understand its contexts. Hornby (2000) states that reading is an action of a person who reads texts by reading activities; students are required to have good interaction with the texts and need more attention from the reader so that students get exact or close meaning of the texts as well. Alyousef (2006) defines reading as an interactive process between a reader and a text to direct the reader to become fluent in understanding the meaning of a passage. In this process, the reader interacts with the text when he or she tries to understand the meaning and in which various kinds of the text knowledge they have used. It means that the reader requires the interactive process to understand the text that they read so that the reader understands the purpose of the text. However, vocabulary and reading are two things that cannot be separated from one another. When learning reading students need a vocabulary to understand the idea and when learning English vocabulary, students need a lot of practice of reading, because reading is the active way in learning vocabulary. Therefore, if the students know a lot of vocabulary they will comprehend written english text easily.

Reading comprehension and vocabulary mastery have a great relationship. It is in line with Sedita in Furqon (2005) who states that vocabulary knowledge is essential in reading comprehension and determining how well students are in comprehending the texts.

As explained above, vocabulary is essential in learning English. Wallace (1982) states that vocabulary is a vital aspect of language. It can be ascertained that someone cannot use the language they want to master well without a good vocabulary mastery. Students should have a lot of vocabulary because a lack of vocabulary often brings problems for English learners. Therefore, the conclusion cannot be denied that vocabulary is a key component of reading for meaning. If students know the meaning of a word, they will be able to read and consider it within a sentence.

## **II. METHODS**

This research is a quantitative study to determine the correlation between students' vocabulary mastery and students' reading comprehension. In addition, correlational research is used to find out whether there is a significant correlation between one variable to another variable. In this research, there are two variables, the student's vocabulary mastery which is an independent variable, and the students' reading comprehension which is the dependent variable. Independent variables are variables that cause or influence other variables. The dependent variable is the variable affected by the independent variable (Marczyk, 1964: 46). To find out the correlation between students' vocabulary mastery and

students' reading comprehension, the researcher used design by Karl Pearson in 1896 (Pearson, 1896), the design of the research as follows:

$$r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{n \sum x^2 - (\sum x)^2} \sqrt{n \sum y^2 - (\sum y)^2}}$$

Where :

n = Number of data pairs X and Y

x = Total Sum of Variable X

y = Total Sum of Variable Y

x<sup>2</sup> = Square of Total Number of Variables X

y<sup>2</sup> = Square of Total Number of Variables Y

xy = Multiplication Result of Total Number of Variable X and Variable Y

The population of this research was 168 eleventh-grade students of SMA N 1 Bandar Lampung. Each class consists of 30- 36 students. In selecting the sample the researcher used cluster random sampling to determine the sample for this research. The researcher took one class that is the eleventh-grade students of IPA 5 SMA N 1 Bandar Lampung. There are 36 students as the sample of this research. It is applied based on the consideration that the students of the population have the same chance and to avoid subjectivity in the research (Setiyadi, 2006: 39).

In this research, the researcher used two kinds of tests. They are vocabulary tests and reading comprehension tests. This research used multiple choice test consisting of 50 questions formulated in operational concept in vocabulary mastery. For the test of reading comprehension the researcher also used a multiple-choice test, the students are asked to take a reading test it consists of 50 items. The test was conducted on the same day. The first test is a vocabulary that provides a time of about 65 minutes and the second is a reading test by the same time about 65 minutes.

The researcher made the steps after conducting the research using tests; the researcher compared the students' vocabulary mastery scores and students' reading comprehension scores at the eleventh-grade students of SMA N 1 Bandar Lampung. The data obtained has been analyzed by using percentage analysis to know the students' ability in using reading comprehension and vocabulary in individual score. The test results are in the form of scores or interval data. After obtaining these results, the researcher would analyze the relationship between students' vocabulary mastery and students' reading comprehension.

### III. RESULTS AND DISCUSSIONS

#### Results

The result of students' vocabulary mastery and students' reading comprehension taken from students' answer. According to the answer, the result of the tests shows that the students has variety scores. The highest score of vocabulary mastery was 98 and the lowest score was 64. While the highest scores of reading comprehension was 84 and the lowest score was 24.

The main goal of this study is to find out whether or not a positive correlation between vocabulary mastery and reading comprehension of the eleventh grade students of SMA N 1 Bandar Lampung in the academic year 2020/2021. To find out the correlation between two variables above, the writer used the

Pearson's product moment formula to compute the data. There are two variables; vocabulary mastery as variable X and reading comprehension as variable Y. The computation can be seen below.

$$\begin{aligned}
 & \frac{36(187596) - (2688)(2480)}{\sqrt{\{36(203296) - (2688)^2\}\{36(175764) - (2480)^2\}}} \\
 & \frac{6753456 - 6666240}{\sqrt{(7318656 - 7225344)(6327504 - 6150400)}} \\
 & \frac{87216}{\sqrt{(93312)(177104)}} \\
 & \frac{87216}{\sqrt{16525928448}} \\
 & \frac{87216}{128553} \\
 & = 0.678
 \end{aligned}$$

From the result of data analysis, it was found that there was positive correlation between students' vocabulary mastery and students' reading comprehension. It can be said that having a lot of vocabulary makes the students understand the text easily. Although strategy of reading and experience of students help them in comprehend a text, but vocabulary mastery is more important in helping the students to comprehend the text.

## Discussions

From the result, this research shows that there was positive correlation between students' vocabulary mastery and students' reading comprehension. It can be said that the important factor in learning reading comprehension is students' vocabulary mastery. It was strengthened by Sedita in Furqon (2005) who states that vocabulary knowledge is essential in reading comprehension and determining how well students are in comprehending the texts. Vocabulary is a key component of reading for meaning. If students know the meaning of a word, they will be able to read and consider it within a sentence.

To investigate whether there was a significant correlation between student's vocabulary mastery and their reading comprehension, the researcher had tested their vocabulary mastery and their reading comprehension. It can be seen from table above that  $r_{xy} = 0.678$  with N 34 ( $df = N - 2 = 34$ ) are significant. It means  $H_a$  was accepted that there was a significant correlation study between vocabulary mastery and reading comprehension. Based on Interpretation of r correlation by Arikunto (2004) it show that 0.678 is classified interval 0.600 – 800 in the indexes of correlation is Sufficient correlation.

## IV. CONCLUSIONS AND SUGGESTIONS

### Conclusions

The objective of this research was to find out whether there was a significant correlation of student's vocabulary mastery and their reading comprehension or not. In relation to results and discussion of the study, it is concluded that there is a significant correlation between student's vocabulary mastery and their

reading comprehension. Statistically, it could be seen from the gain of the students' student's vocabulary mastery and their reading comprehension scores. Students who have better score in vocabulary test they get the better score in reading comprehension too. However, there are some students that still have low score in vocabulary. Students with low score in vocabulary usually get low score in reading comprehension too. It proves that students' vocabulary influences their reading comprehension. Having a lot of vocabulary makes the students understand the text easily. Although strategy of reading and experience of students help them in comprehend a text, but vocabulary mastery is more important in helping the students to comprehend the text.

### **Suggestions**

In reference with the conclusion, the researcher gives some suggestions. The first to get a good mastery in reading comprehension, the students have to master vocabulary, because vocabulary contributes to the mastery of reading comprehension. In addition, to get a good achievement in reading comprehension, the students have to master vocabulary very well. Because vocabulary lesson is not explicitly specified in the curriculum, the teachers have a duty to help their students in improving their vocabulary. And for English teacher at SMA should get informed of the finding so that they can take necessary steps to address the situation. It is also suggested to extend the number of participant or student to get result that is more accurate and gain a wider generalization.

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