

## **The Correlation Between Students' Vocabulary Mastery and Their Reading Comprehension in Learning English of The Eleventh Grade Students of SMA N 11 Jambi**

**Fitri Desriani, Suyadi, Siti Aisyah**

English Language Education Study program, Faculty of Teacher Training and Educational Sciences, University of Batanghari

### **ABSTRACT**

One of the important abilities in learning English is reading. Reading comprehension is a fundamental skill in education, crucial for understanding and interpreting text across subjects. On this research, the researcher wants to find out whether there is correlation between students vocabulary mastery and their reading comprehension in learning English, especially at SMA N 11 Jambi. This research investigates the relationship between vocabulary mastery and reading comprehension abilities among students at SMA 11 Jambi City. This research used Quantitative Method and using Pearson Correlation Coefficient as data analysis result. The population in this research is all of eleventh grade students at SMA N 11 Jambi City and took 35 students as sample on this research. The technique that used in this research to collect the data was distributed the test about vocabulary and reading. From the research results, the researcher found that there was a correlation between the two variables and reached 0.892. According to the Pearson Correlation Coefficient guidelines, these results prove that the correlation between the two variables is a strong positive correlation. The conclusion that can be drawn from this study is that vocabulary has a very strong correlation with reading. Not only with reading, but with vocabulary, students can also master 3 other skills in learning English, namely speaking, listening, and writing.

**Keywords:** *Vocabulary, Reading, Comprehension.*

### **INTRODUCTION**

Reading is one of the important language skills. By reading, people may get a lot of information. Reading makes someone smarter and creative. Reading regularly stimulates the reader's brain cells, according to Laddoo (2007), making them smarter and sharper. Reading comprehension is a fundamental skill in education, crucial for understanding and interpreting text across subjects. One of the key factors influencing reading comprehension is vocabulary knowledge.

Vocabulary, defined as the collection of words known and used by individuals, plays a significant role in how well students understand and engage with written material. As stated by Laddoo (2007), reading forces the reader's brain cells to work on a regular basis as this will keep the reader sharper and smarter. Even though some information can be obtained without reading, for example by listening to teacher, seminar, radio, television etc, but by reading someone may get wider information than listening. This is

supported by Willis (2008) who states that by reading, someone can find the information he/she needs with specific information. In order to gain specific information, students at school should be taught how to read effectively and efficiently, such as making prediction about what will happen (Klingner, Vaughn and Boardman, 2007). According to Alizadeh (2016) states that most of the people define a vocabulary as an knowledge of a phrase and which means of the phrase, or that the vocabulary is a set of words and their meanings organized in alphabetical order. Besides that, Furqon (2013) defined that gaining knowledge of vocabulary is not best spotting the phrases and its which means, but additionally knowledge the phrases' sound and how phrases used in sentence context.

Students who has a restricted vocabulary will also have a limited understanding when it comes to speaking, reading, listening, and writing. According to Widyaningsih (2006), if you are already

interested in words (vocabulary), using them can improve your reading, writing, speaking, and thinking. The correlation between a student's vocabulary competency and their ability to interpret written texts has long been a topic of discussion in the educational industry. Understanding this relationship is critical for educators and curriculum designers who want to create successful techniques for improving students' language skills.

Reading comprehension and vocabulary mastery have a strong relationship. It is in line with Sedita (2005) who states that vocabulary knowledge is crucial in reading comprehension and determining how well students are in comprehending the texts. Other studies, on the other hand, contend that, while vocabulary is definitely crucial, other elements like understanding tactics and previous knowledge may also play important roles.

Furthermore, the effect of vocabulary education approaches on reading comprehension should be investigated. The strength of the association between vocabulary mastery and reading comprehension may be influenced by pedagogical approaches such as explicit vocabulary training, contextual learning, and immersive language experiences. It is essential for educators to understand the complex relationship between reading comprehension and vocabulary knowledge in order to offer targeted interventions for difficult students. Based on the fact that vocabulary plays a role in reading, it was demonstrated that they have a close correlation. To obtain empirical data, the researcher will organize the test to demonstrate the impact of students' vocabulary mastery and reading comprehension ability in learning English. Furthermore, the knowledge gained from this research can be applied to curriculum design, instructional methodologies, and assessment techniques, which will ultimately improve academic achievement

and language learning for a variety of student populations.

Laufer (1997:54) states that vocabulary learning is at the heart of language learning and language use. In fact, it is what makes the essence of a language. Without vocabularies, speakers cannot convey the meaning and communicate with each other in a particular language. According to Cameron (2001) described vocabulary as a list of phrases and words with definitions arranged alphabetically. However, Linse (2006) claims that a person's vocabulary is the collection of terms that they are familiar with.

According to Lehr (2004), vocabulary is the understanding of words and their meanings in both written and spoken language, as well as in both productive and receptive forms. For someone learning a language, having a good understanding vocabulary is needed for speaking, writing, listening, and reading. If a foreign language student has a good vocabulary, they will be able to write with ease, speak with accuracy and fluency, and understand what they read or hear. Above all, it is important for them to have the ability for using it correctly. In line with the above opinion, Suyadi (2024) states that without mastering vocabulary speaking ability of the senior high school students can be improved.

## **REVIEW OF RELATED LITERATURE**

### **Definition of Reading**

Reading is one of the important language skills. By reading, people may get a lot of information. Reading makes someone smarter and creative. Reading regularly stimulates the reader's brain cells, according to Laddoo (2007), making them smarter and sharper. While there are ways to learn without reading, such as through listening to lectures, radio, television, and

teacher explanations, reading can provide access to a greater amount of information than listening alone.

In relation to the definitions of reading, Edhita G. Simanjuntak (1989:14) defines that reading are the meaningful interpretation of printed or written verbal symbols. This is so as supported by Willis (2008) who states that by reading, someone can find the specific information he needs specific information. In the case of helping the students to understand the text without understanding all the vocabulary items available in the text is by finding key words.

Apriani (2011), states that comprehension is the process that lets readers create meaning while engaging with texts, or after doing so. This process involves a combination of the reader's relationship with the text, information in the text, past knowledge and experience, and immediate, remembered, or anticipated social interaction and communication.

### **Aims of Reading**

A person may read for many purposes and that purpose helps understand more what is read by people. If students was reading for pleasure or reading for pure recreation and enjoyment, they may read either quickly or slowly based on the way they likes or feels. But if the students was reading for study or information such news, science or some line, which were the part of his study or assignment it does very slowly and carefully and generally the aim of reading is to find some information from the text. Reading's purpose is to help the learner understand the written language. In other words, how does the learner interpret the writer's symbols. The reader's main purpose is to uncover the author's intended message.

### **Kinds of Reading**

According to Hikmawati (2008: 12) that reading is classified into two kinds, they were:

- a. Silent reading, When we read books, newspapers, road signs, etc., we typically read them silently, which required us to pay attention to silence and understand what it means. We could increase our comprehension in silence by starting with short reading passages and asking questions about the next word.
- b. Reading Aloud, it purposes were not only to understand a text, but also to convey the information someone. Reading aloud was very useful. Reading aloud was important thing to do in reading process where the students who know as the reader were required to read.

### **Definition of Vocabulary**

Effective communication, comprehension, and expression all depend on having a large enough vocabulary, which is a fundamental aspect of language ability. According to Alizadeh (2016) states that most of the people define a vocabulary as an knowledge of a phrase and which means of the phrase, or that the vocabulary is a set of words and their meanings organized in alphabetical order. Besides that, Furqon (2013) defined that gaining knowledge of vocabulary is not best spotting the phrases and its which means, but additionally knowledge the phrases' sound and how phrases used in sentence context.

Which is defined by Hornby (2000) as all the words in a particular language or "A list or collection of words and phrases usually alphabetically arranged and explained or define" (Merriam, 2003), is one of most fundamental components of language. Without vocabulary mastery, nobody can communicate through language. To show the essence of vocabulary in a language, Hammer (2002) emphasized that, "without grammar very little can be conveyed, without vocabulary, nothing can be conveyed." In line with this,

Napa (2005) stated that there is no language without using words.

According to Lehr (2004), vocabulary is the understanding of words and their meanings in both written and spoken language, as well as in both productive and receptive forms. For someone learning a language, having a good understanding of vocabulary is needed for speaking, writing, listening, and reading. In line with the above opinion, Suyadi (2024) states that without mastering vocabulary speaking ability of the senior high school students can be improved.

### **Correlation between Vocabulary Mastery and Reading Comprehension**

Many experts have discussed the relationship between reading comprehension and vocabulary mastery. According to Hirsch (2003), that knowing at least 90% of the words in a text allows the reader to get the main idea from the reading and correctly guess what many unfamiliar words mean, which helps them learn new words.

Vocabulary and reading cannot be separated, because both of them relate to each other. As the researcher explain before, by having and mastering vocabulary it will know the meaning of vocabulary in the context. It can also help to avoid making mistake in understanding. Vocabulary was very important to reading comprehension. Readers cannot understand what they were reading without knowing what most of the word mean. As the children learn to read more advanced texts, they must learn the meaning of the new words that are not part of their oral vocabulary.

### **METHODOLOGY**

In this research, the researcher used Correlational design method was procedures in quantitative research in which investigators measure the degree of association (or relationship) between two or more variables using the statistical

procedure of correlational analysis. Quantitative research design is defined by experts as a systematic and objective approach to investigating social phenomena using numerical data and statistical analysis. According to Creswell (2008), Quantitative research is a means for testing objective theories by examining the relationship among variables. These variables, in turn, can be measured, typically on instruments, so that numbered data can be analyzed using statistical procedures.

The population refers to the entire group of individuals, objects, or events that share a common characteristic and are the focus of the study. It represents the complete set of elements that the researcher aims to study and draw conclusions about (Jilcha Sileyew, 2020; Garg, 2016). The population of this research, is 295 students eleventh grade of SMA N 11 Jambi. According to Taherdoost (2018), The sample represents a smaller, manageable group that researchers use to make inferences and draw conclusions about the entire population. The researcher took the XI F9 class as the subject of this research. The subject of the research were 35 students in class XI F9 of SMA N 11 Jambi.

The instrument of collecting data is used by the researcher to get the data by using test. Researcher collect the data by giving students a test. The researcher explained to the students about the test and The researcher gave two hour for students to answer the entire question.

These test focus on the vocabulary test and reading comprehension. Since the researcher wanted to find out the correlation between two variables, so the researcher used test method. The test consist 40 questions, 20 items of multiple choices to find out their reading comprehension, and 20 items for fill the blank to find out their vocabulary mastery. The test aimed to find out students' vocabulary mastery and their reading

comprehension and to obtain data to be processed by researcher.

The correlation coefficient is a value that indicates the strength or weakness of the linear relationship between two variables. This correlation is usually symbolized by the letter *r*, whose value is in the range of -1 to +1. An *r* value approaching -1 or +1 indicates a strong relationship between the two variables, while an *r* value approaching 0 indicates a weak relationship. If the correlation coefficient shows a positive result, then the two variables have a unidirectional relationship. This means that when variable X is high, the value of variable Y will also be high. To know there was significant correlation between the students' vocabulary mastery and their reading comprehension ability, the researcher applied the following formula:

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

Where:

- N = Number of data pairs X and Y
- $\sum x$  = Total Sum of Variable X
- $\sum y$  = Total Sum of Variable Y
- $\sum xy$  = Multiplication Result of the Total Number of Variable X and Variable Y
- $\sum x^2$  = Square of Total Number of Variables X
- $\sum y^2$  = Square of Total Number of Variable Y

According to Sudijono (2012 : 193), If the lies between 0. 40 - 1.00 is accepted, and is rejected. Whereas if the lies between 0.00 - 0. 40, is accepted To see whether the correlation between the students' vocabulary mastery and their reading comprehension ability was significant or not, the writer concludes the result by applying the following comparison between the *r* analysis and the *r* table.

“r” Score of Product Moment	Interpretation
0.00-0.20	Very poor
0.20-0.40	Low
0.40-0.70	Moderate
0.70-0.90	High
0.90-1.00	Very high

Sudijono (2012 : 193)

## FINDINGS AND DISCUSSIONS

The data was collected from the data of the students' score on the questioner about correlation between Vocabulary mastery (X) and their Reading comprehension (Y). The researcher decided to take 20 questions for vocabulary and 20 questions for reading and add up the results of what the students found. Based on the data, the researcher gets  $\sum X=2945$ ,  $\sum Y=2895$ ,  $\sum XY=268175$ ,  $\sum X^2=277825$ ,  $\sum Y^2=264725$ . To find out the correlation between vocabulary mastery and their reading ability, the researcher done hypothesis examination based on the result of research that have done before. Then the data analyzed to count the result of correlation between X variable and Y variable by using correlation coefficient formula.

After calculating the data using the formula above, the researcher find out that  $r = 1.2$ . So, the null hypothesis ( $H_0$ ) stating that there is no significant correlation between students' vocabulary mastery and their reading comprehension is rejected, and the alternative hypothesis ( $H_1$ ) is accepted. Which means, there is a correlation between students' vocabulary mastery and their reading ability. With the correlation category is perfect positive correlation which has been quoted from Sarwono: 2006. After the researcher found that value of  $r_{xy}(1,2)$  and look in to the table of indexes corelation, it can be concluded that the level of this correlation

is 0,90 – 1,00, based on the table of criteria r Product Moment was in the very high Correlation. It means that the vocabulary was very important in their reading comprehension it because when the students was low knowledge about vocabulary automatically their reading comprehension it was more low.

Based on the result of the analysis there was a significant correlation between students' vocabulary mastery and their reading ability in learning English of the eleventh grade students of SMAN 11 Jambi City, especially in XI F9 class. The results obtained from the tests administered on vocabulary and reading comprehension suggest that students with a stronger grasp of vocabulary tend to perform better in reading comprehension tasks. The statistical analysis further reinforced this relationship, with the calculated correlation coefficient ( $r$ ) of 1.2 indicating a perfect positive correlation. According to Sarwono (2006), a correlation coefficient in this range suggests a strong interdependence between the two variables. This means that as students' vocabulary knowledge increases, their reading comprehension skills also improve significantly.

## **CONCLUSION**

Based on the findings and analysis, it can be concluded that vocabulary mastery plays a crucial role in students' reading comprehension abilities. The study revealed a strong positive correlation between these two variables, demonstrating that students who have a higher vocabulary mastery tend to perform better in reading comprehension assessments. the researcher came into conclusion that Vocabulary Mastery and Reading Comprehension of the Eleventh Class in SMAN 11 Jambi City is related to each other. This study investigated the correlation between students' vocabulary mastery and their reading comprehension abilities among XI F9 students at SMA N 11 Jambi City with

the correlation coefficient ( $r$ ) of 1.2 indicating a perfect positive correlation.

Finally, researcher has some suggestions for the students to encourage learning new words through tools, like flashcard, vocabulary apps, etc. Some of teacher have to Implement explicit vocabulary instruction strategies and integrate them into regular reading activities. Use individualized and group-based interventions to support students with lower vocabulary and comprehension skills.

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