

## THE CORRELATION BETWEEN VOCABULARY MASTERY AND READING COMPREHENSION OF THE EIGHTH-GRADE STUDENTS OF SMPN 1 BLAHBATUH IN ACADEMIC YEAR 2021/2022

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### ABSTRACT

The present study is an ex-post facto research with correlation design was intended to figure out the significant correlation between vocabulary mastery and reading comprehension of the eighth-grade students of SMPN 1 Blahbatuh in academic year 2021/2022. The samples of the research consisted of 60 students which were chosen by means of random sampling method with lottery system. The data were collected through administering the research instruments which were in the form of structured matching cloze procedure test and short answer test. The obtained data were statistically analyzed by using Pearson product moment correlation and t-test. The results of the data analysis clearly revealed the alternative hypothesis was accepted. In other words, the research findings confirmed that there is significant correlation between vocabulary mastery and reading comprehension of the eighth-grade students of SMPN 1 Blahbatuh in academic year 2021/2022.

**Keywords:** correlation, vocabulary mastery, and reading comprehension.

### ABSTRAK

*Penelitian ini merupakan penelitian ex-post facto dengan desain korelasi yang dimaksudkan untuk mengetahui hubungan yang signifikan antara penguasaan kosakata dan pemahaman bacaan siswa kelas VIII SMPN 1 Blahbatuh tahun ajaran 2021/2022. Sampel penelitian berjumlah 60 siswa yang dipilih dengan metode random sampling dengan sistem undian. Pengumpulan data dilakukan melalui pemberian instrumen penelitian berupa tes prosedur cloze matching terstruktur dan tes jawaban singkat. Data yang diperoleh dianalisis secara statistik dengan menggunakan korelasi product moment Pearson dan uji-t. Hasil analisis data secara jelas mengungkapkan hipotesis alternatif diterima. Dengan kata lain, temuan penelitian menegaskan bahwa ada hubungan yang signifikan antara penguasaan kosakata dan pemahaman bacaan siswa kelas delapan SMPN 1 Blahbatuh tahun ajaran 2021/2022.*

**Kata Kunci:** korelasi, penguasaan kosakata, dan pemahaman bacaan.

### INTRODUCTION

Perceiving the text and getting the meaning in it is called reading activity. Reading is one of the language skills that must be mastered in learning English beside listening, speaking, and writing. Reading comprehension is an important language skill in learning because it is one of the bases in education and one of the factors

that can make the students succeed in their study depending on their greatest part of reading comprehension. Reading is crucial because, through reading, the students can get more benefits and have a big impact in the future because they can learn new things to enrich their knowledge and open their minds. Reading is a way to get information and help interact and respond to others.

Reading is not only for students; it is for everyone who needs information in their daily lives. They can access information other than in books; it can be found in other written texts. Reading comprehension can be started in the early stages of elementary school. It can be initially introduced in advance for junior high school students with various kinds of texts. Then the student applies their knowledge to comprehend the text being read.

According to Blachowicz and Ogle (2008:15), reading comprehension is essential. It is the process by which people gain information and ideas from books, newspapers, manuals, letters, contracts, advertisements, and other materials. Reading is not only for students; it is for everyone who needs information in their daily lives. They can access information other than in books; it can be found in other written texts.

Pang et al. (2003:6) state that reading is about understanding written texts. It is a complex activity that involves both perceptions and thought. Reading consists of two related processes: word recognition and comprehension. Word recognition refers to the process of perceiving how written symbols correspond to one's spoken language. Comprehension is making sense of words, sentences, and connected texts.

According to Boardman (2007:8), reading comprehension involves much more than readers' responses to the text. Reading comprehension is a multi-component, highly complex process involving many interactions between readers and what they bring to the text (previous knowledge, strategy use) and variables related to the text itself (interest in text, understanding of text types). The

students should comprehend the text they read by thinking and getting at the meaning behind it. The more reading students do, the more knowledge they can understand and get from the text which has been read.

According to Harmer (2007:99), reading is crucial because of two main reasons. First, it is beneficial to the students' personal life. Reading English texts may have a positive impact on students' further studies and careers or it may simply play the role of joyful reading. Second, it is beneficial to their language acquisition for spelling and vocabulary knowledge. Through reading, students develop knowledge, information, concepts, and attitudes. Moreover, students get many vocabularies which are needed in other skills if they read a lot. Students also need to comprehend the text during the reading process so that they can get the meaning.

To make successful comprehension in reading text is necessary for the students to have a reading skill. Therefore, to make the students have a good comprehension in reading text, the mastery of vocabulary is needed. Ningsih et al. (2021) states that having a lot of vocabulary will help the students easily understand what are being read and also they are able to know unfamiliar words. Vocabulary is crucial because it is one of the language components. Vocabulary is the key aspect of language learning which consists of words that students use for speaking, listening, reading, and writing. According to Tankersley (2003:52), vocabulary is the meaning and pronunciation of words that are used in communication. It is simply the number of words that the students understand or can actively use to listen, speak, read, or write. Vocabulary is all

about words or the words in a language or a special set of words that should be learned.

To sum up, mastering vocabulary is the key to successful reading comprehension because from that way the students can easily get the meaning or information that they have read, they can also express new ideas and enrich their knowledge by learning so much something new that brings positive effect to their life now and forever. Without mastering vocabulary, the students will be confused in understanding the content of the text that they have read.

Considering of the fact above, the researchers are curious to figure out the significant correlation between the research variables by conducting a piece of research entitled “The Correlation between Vocabulary Mastery and Reading Comprehension of the Eighth-grade Students of SMPN 1 Blahbatuh in Academic Year 2021/2022”.

## RESEARCH METHODS

This study used ex post facto research with correlational research design. The researchers used a random sampling technique with a lottery system to find the samples in the present study. The researchers decided to choose 60 students from the 509 population as the samples of the present correlational research. There were two kinds of instruments used in this study: matching cloze procedure test to test vocabulary mastery by identifying parts of speech (nouns, verbs, adjectives, and adverbs) and short answer task to test reading comprehension by identifying four aspects of reading: general information, specific information, textual reference, and textual meaning.

After the test has administered, the researchers scored the answer from the students. The researchers scored it using the rubric adapted from Brown (2004). Therefore, the present research data were considered the raw scores that indicated the achievement of the samples' reading comprehension and vocabulary mastery.

To gain a conclusion, data analysis is a process where certain information is transformed. The present research data were in the form of the scores that were resulted from the matching cloze procedure test showed the students' vocabulary mastery, and short answer tasks showed their reading comprehension. To sum up, the required data analysis can be explained by some tests in pre-requisite analysis that the researchers did before testing the hypothesis. The statistical analysis were pre-requisite and hypothesis testing.

The first analysis that should be done is pre-requisite analysis. The pre-requisite analysis is a basic analysis requirement before doing hypothesis testing. There are two tests that would be conducted by the researchers. Those two tests are: normality test and homogeneity test.

A normality test is used to know the normality of the data that would be analyzed whether both groups have normal distribution or not. The researchers applied SPSS 26 program using Kolmogorov-Smirnov test because this test is more appropriate for big sample size (>50 samples), that is way the researchers used Kolmogorov-Smirnov test because the sample of this research is 60 (>50 samples). The hypothesis for the testing normality is as follows (Pallant, 2007:62):

- a. If  $\text{Sig.} > 0.05$ , it means the data distribution is normal;

- b. If Sig.<0.05, it means the data distribution is not normal.

Homogeneity test means the same in structure or composition. To calculate the homogeneity test, the researchers applied SPSS 26 version for windows using Levene's test with a significance level (5%). If the significant value that is statistically analyzed is lower than 0.05, it indicates that the data distribution differs significantly from homogeneous data. In other words, the data can be categorized as homogeneous if the significant value is higher than 0.05.

Hypothesis testing is an act in statistics where the researchers' tests population parameter assumptions. It is possible whether the assumption is acceptable or not within this assumption. The researchers assumed that there is a correlation between vocabulary mastery and reading comprehension of SMPN 1 Blahbatuh in academic year 2021/2022. In this study, the hypothesis testing is divided into two, namely, Pearson Product-Moment Correlation and T-test.

Pearson product-moment correlation that the researchers was used SPSS 26 version for windows. Pearson product-moment correlation coefficient or Pearson's  $r$  is used to measure the linear correlation between two variables, and it can have a value between -1 and +1. In other words, using Pearson's  $r$  is a simple way to assess the correlation between two variables. The researchers interpreted the score of  $r$  using the indexes of correlation on the following table adapted from Sugiyono (2017:231).

Table  
The Interpretation of the Correlation Coefficient

Magnitude "r" Product Moment	Interpretations
0.00-0.199	Very low correlation
0.20-0.399	Low correlation
0.40-0.599	Mediocre correlation
0.60-0.799	High correlation
0.80-1.000	Very high correlation

According to Marczyk et al. (2005:220), the t-test is a test of statistically significant differences between two groups. The T-test was performed after the data are normally and homogeneously distributed. There are three kinds of t-test: independent-samples, paired-samples, and one-samples. In this research, the researchers used the paired-samples t-test to test the alternative hypothesis. The results of the paired-sample T-test are determined by the significance value. This value then determines the decisions taken in the study. If the significant value less than 0.05, it means the data can be categorized as significant correlated. Meanwhile, if significant value more than 0.05, it means the data can be categorized as not significantly correlated.

## FINDINGS AND DISCUSSION

In these findings, the researchers would like to explain the requirement for the data used so that the statistical analysis can be further continued to the next analysis. Two requirements that must be fulfilled in Pre-requisite analysis is normal and homogeneous analysis. Therefore, before the data further tested into a hypothesis

testing, the data should pass the normality and homogeneity test. Thus, the result of normality and homogeneity test is explained as follow:

The result from the test of normality, namely Kolmogorov-Smirnov test. Kolmogorov-Smirnov test is more appropriate for big sample sizes (>50 samples); that was why the researchers used Kolmogorov-Smirnov test because the sample of this research was 60 (>50 samples). According to Pallant (2007:62), if Sig. > 0.05, it means the data distribution was normal and if Sig. < 0.05, it means the data was not normal. SPSS 26 output table above showed that the significance value (Sig.) of 0.112 on vocabulary mastery was greater than 0.05, it means normal. Besides, reading comprehension can be noted on the Significance value of 0.079 which was greater than 0.05, it means that the data distribution of the present research was normal.

Furthermore, the homogeneity test was a test that assessed whether there were differences in variance between the two groups or more. The homogeneity test was only used in parametric tests, which test differences between two or several groups with different subjects or data sources. Therefore, a homogeneity test was needed to assume the independent T-test and ANOVA test. In the present study, to calculate homogeneity testing, the researchers used SPSS 26 program using Levene's test with level significance to find out the homogeneity between vocabulary mastery and reading comprehension. The following was the results of the homogeneity test from the present research data:

The significance value of the homogeneity test was a figure of 0.100. This means the significance value of the research variables was higher than 0.05. According to Pallant (2007:246), if Sig. > 0.05, the data variance is homogeneous on the other hand if Sig. < 0.05, the variance of the data is not homogeneous. Based on the results above it was found that the significance value of  $0.100 > 0.05$ . It can be concluded that the data of vocabulary mastery and reading comprehension had already had a degree of homogeneity.

After conducting a normality and a homogeneity test, the researchers proceed the data of the research to the hypothesis testing. Within this hypothesis, there is a possibility of whether it is accepted or not. In this study, the researchers constructed a directional hypothesis that clearly stated a significant correlation between vocabulary mastery and reading comprehension of the eighth-grade students of SMPN 1 Blahbatuh in academic year 2021/2022. After calculating the pre-requisite analysis of the normal distribution of variance in which the data were normally distributed, the researchers then did the hypothesis testing. There are the tests that would be used in this hypothesis testing, namely the Pearson product-moment correlation test and T-test.

Based on the statistical computation assisted by SPSS 26 using a test of Pearson product-moment correlation. From the 60 samples, the obtained  $r$  of correlation was 0.998. According to table that was interpreted from Sugiyono (2017:231), the correlation between variable X and Y variable was considered as very high correlation if it was in the range of 0.80-1.000. The researcher can conclude the

correlation between vocabulary mastery and reading comprehension of the eighth-grade students of SMPN 1 Blahbatuh in academic year 2021/2022 was a very high correlation because the value is 0.998. Furthermore, the next hypothesis testing can be continued by using T-test

According to Marczyk et al. (2005:220), the T-test was a test of a statistically significant difference between two groups. There are three kinds of t-tests: one-sample t-test, paired-sample t-test, and independent-sample t-test. In this study, the researchers used the paired sample t-test to determine whether there was probably a significant correlation between the two variables. The paired-sample t-test result that was formulated and determined by the significance value.

Based on the results, it can be found that the level significance of all groups of data which were analyzed by paired samples t-test showed that the significance value was accepted because sig. 0.000 less than 0.05. In addition, based on the table, the result of the t-test counted was 3.900, and the result of degree of freedom was 59. Moreover, based on the table result of t-table 0.05 from  $df = n - 2 = 58$  samples were 2.0017. It can be concluded that the t-test counted  $>$  t-table, it was  $3.900 > 2.0017$  there was a significant correlation. It meant a significant correlation between vocabulary mastery and reading comprehension of the eighth-grade students of SMPN 1 Blahbatuh in academic year 2021/2022. The next session after the findings is continued in discussion.

In this section, the researchers presented the research findings that had been carefully collected, and the data were intended to figure out the significant

correlation between vocabulary mastery and reading comprehension of the eighth-grade students of SMPN 1 Blahbatuh in academic year 2021/2022.

To answer the research problem of the present study, the researchers conducted the research on 28<sup>th</sup> October 2021. The population was the eighth-grade students of SMPN 1 Blahbatuh which consisted of eleven classes and there were 509 students altogether. There were 60 students who were chosen as the samples in the present research. They were chosen by applying random sampling technique with lottery system. The researchers also used a directional hypothesis that stated that there is a significant correlation between vocabulary mastery and reading comprehension of the eighth-grade students of SMPN 1 Blahbatuh in academic year 2021/2022. Later, this alternative hypothesis would be used as a reference to whether there is a significant correlation between the two variables.

The purpose of data analysis in this study was to measure the correlation between vocabulary mastery and reading comprehension of the eighth-grade students of SMPN 1 Blahbatuh in academic year 2021/2022. Based on the correlation above about the normality test and hypothesis test of the present study. The researchers had conducted the data. The data was collected by using two instruments. The first instrument was the matching cloze procedure test used to know the student's vocabulary mastery by identifying parts of speech (nouns, verbs, adjectives, and adverbs). The second instrument was a short answer task used to know their reading comprehension by identifying four aspects of reading: general information,

specific information, textual reference, and textual meaning.

Based on the findings and analysis above, it has been revealed that there is a significant correlation between vocabulary mastery and reading comprehension of the eighth-grade students. In addition, the t-test results showed the hypothesis was accepted because the significance value was lower than 0.05. After finding out the calculation and the t-test result, it could be considered that knowing a lot of vocabulary makes the students easily catch the meaning of the text to improve their reading comprehension. In other words, the present research finally confirmed the directional hypothesis that has been previously stated; there was a significant correlation between vocabulary mastery and reading comprehension of the eighth-grade students of SMPN 1 Blahbatuh in academic year 2021/2022.

## CONCLUSION

The present study used an ex-post facto research design focused on the correlational design. The researchers could only report the study results without giving treatment to the present study samples. The purpose of the study was to figure out whether there was a significant correlation between vocabulary mastery and reading comprehension. Based on the findings, it can be concluded that there was a significant correlation between vocabulary mastery and reading comprehension of the eighth-grade students of SMPN 1 Blahbatuh in academic year 2021/2022. The results of the present study should be carefully generalized.

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