



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

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Abstract The purpose of this study was to find out if there was a positive correlation between students' vocabulary skills and descriptive reading. These was a correlational research methodology by using test of students' vocabulary knowledge and assess descriptive reading skills. The study used SPSS to assess the relation between students' vocabulary knowledge and descriptive reading skills. The significant value was $0.000 \leq 0.005$, indicating that there was a relation among vocabulary competency and descriptive reading ability among the students. According to the data, 0.700 is the value of the correlation coefficient. So, based on ranges of correlation from 0.60 up to 0.799, it is clear that there was a strong degree of relevance relationship which means that the correlation was indicating a high level of correlation.

Keywords: Correlation; Vocabulary Mastery; Reading Comprehension; SPSS; High Level.

Abstrak Penelitian ini bertujuan untuk mengetahui hubungan antara keterampilan perbendaharaan kata yang dimiliki oleh siswa dengan pengetahuan membaca deskriptif. Penelitian ini menggunakan desain penelitian korelasional dengan mengukur keterampilan perbendaharaan kata yang dimiliki oleh siswa dan pengetahuan bacaan deskriptif mereka. Untuk mendapatkan hubungan antara keterampilan kosakata siswa dengan pengetahuan membaca deskriptif. Peneliti menggunakan program SPSS untuk analisis data. Bersumber pada hasil penelitian ditemukan hasil bahwa nilai signifikansinya adalah $0.000 \leq 0.005$ yang berarti ada hubungan antara keterampilan perbendaharaan kata yang dimiliki oleh siswa dengan pengetahuan bacaan deskriptif mereka. Nilai koefisien korelasinya adalah 0.700. Berdasarkan rentang nilai korelasi 0.60-0.799, dapat disimpulkan bahwa derajat hubungan signifikan adalah kuat.

Kata Kunci: Korelasi; Perbendaharaan Kata; Pengetahuan Membaca; SPSS; Level Tinggi

INTRODUCTION

English is a global language that is spoken by practically everyone in the world, especially students. That is why nowadays, many students around the world are learning English. When we learn language, words are one of the most important things. It becomes a main topic for learning the language. Sentences or clauses are formed from a collection of words. Words are very difficult to separate when speaking the language because words are part of the language itself. Spoken language is distinct from written language. So many feature that distinguishes spoken language that are not present in written language (Ekaningsih, 2019a). So, at school, English become a foreign language taught in there and the target of national curriculum.

A vocabulary contains a list of words in a language that can be understood and learned (Bishry, 2018a). The greater vocabulary we have, the larger our opportunity to have an ability to apply the language. When the students have a low vocabulary, they may struggle to understand terminology such as speaking, reading, listening, and writing. We cannot learn language without many words, because words help students to communicate with others clearly.

Using the researcher's Field Experience Practice (PPL) as a reference, it was discovered that 80% students still struggled to comprehend the material without knowing all of the vocabulary. The learning vocabulary is necessary for students. Vocabulary has correlation with literacy ability. Lacking of vocabularies, having low interest in reading and seldom habits of reading face problems on students' reading ability which was written on (Ekaningsih, 2019b). So, without mastering vocabularies and reading habits on students' daily activities, students could have problems in their reading comprehension.

Based on the description, it indicates that vocabulary is a crucial part of language education and learning for students to be great readers. Furthermore, according to the research by Elleman & Oslund (2019), finding keywords is an effective way to help students understand the information even if they don't know all of the vocabulary in the text. Because vocabulary is one of the aspects

that affect reading comprehension, the students might utilize this method to mask their vocabulary weaknesses (Guo & Roehring, 2011)

While vocabulary is the keywords in understanding the reading text, the vocabulary mastery is essential for reading comprehension. On the word of Faliyanti (2015), reading comprehension is a grading system for how well you grasp a text. The way to understand the text is by knowing all the vocabulary but also understand the text by finding keywords (Furqon, 2013). This is the reason why vocabulary is closely related to reading. So, mastery vocabularies and reading comprehension have a high relationship.

According to the aforementioned description, the researcher wishes to know if the students' vocabulary competence has a significant impact on their reading ability, especially in descriptive texts. Accordingly, the researcher takes the title "The correlation between students' vocabulary mastery and their descriptive reading comprehension."

To support the aim of this research, the writer reviews some previous studies related to the topic of the present of study. The first study was conducted by Lestari (2018) entitled "The Correlation between Students' Vocabulary Mastery and Reading Comprehension of The Eleventh Grade Students of SMAN 5 Palu". This study was conducted in Palu with the goal of determining the objective condition based on the relation among students' vocabulary competence and reading ability as examined and analyzed by SMAN 5 Palu's eleventh-grade classmates. According to the findings, the comparison between r_{counted} and r_{table} showed that r_{counted} was higher than r_{table} . This means that alternative hypothesis (H_a) was accepted. Then, the writer concluded that the degree of freedom was 26 and the level of significance is 0.05. This means that there was a positive correlation between the pupils' vocabulary mastery and reading comprehension.

The second study was conducted by Bahri (2019) in IKIP Siliwangi University entitled "The Correlation between Students' Vocabulary Mastery and Their Reading Comprehension at The Seventh Grade Students' of MTs Daarul Ihsan". The purpose of this study is to see if there is a link between language competence and reading ability in students. The findings demonstrated that there was the correlation coefficient with $r_s=0.724$ between pupils' vocabulary

proficiency and reading comprehension. This coefficient means that there was a positive correlation between the two variables above. While students' knowledge and reading abilities improve in text comprehension, vocabulary has a substantial impact in helping learners understand the topic, according to the current study.

The third study was conducted by Bishry (2018b) in Riau Economics Collage with the title "The Correlation between Vocabulary Mastery and Their Reading Comprehension". The goal of this study is to examine if there is a relation between vocabulary proficiency and reading ability among students in the Riau Economics College Banking and Accounting Financial Department. The findings of this study are the students' vocabulary competence is excellent, and their reading skill is excellent. However, the results of the study reveal that there is no positive relation between vocabulary proficiency and reading ability because there was no indicating significant to 1% or 5%. So, the vocabulary mastery didn't give positive correlation to students' reading comprehension.

From the above four previous studies, the writer showed some points of differences with the currents study such as on the subjects of the studies, on the level of students and on the students' major. The research focuses on the relationship between students' vocabulary mastery and descriptive reading comprehension at Madrasah Aliyah surrounding Demak in the Academic Year 2020/2021 with SPSS analysis.

METHOD

The researcher employed quantitative research as the method of investigation in this study. Furthermore, the researcher employed which was a quantitative research technique in which the researcher employed the statistical procedure of correlational analysis to determine the degree of relationship between two or more variables (Lestari, 2018).

Correlational research is used by the researcher because he or she wants to measure a variable and then analyze the data to see if the variables are connected or not. It focuses on the relationship between students' descriptive reading abilities and their vocabulary competency.

A population is a collection of items or examples that meet certain criteria, whether they be humans, objects, or events, and to which we wish to generalize the research findings (Risma et.al, 2016). In addition, population is a unit of individuals or subjects in a certain area and time to be observed (Supardi, 2015).

. This study was conducted in Madrasah Aliyah at Demak. The subjects in this study were Madrasah Aliyah twelfth-grade students in the school year 2020/2021. The total of the students are 23 students consisting of 10 male students and 13 female students. We can see at the table below:

Table 1. Students' Code and Gender

Students' Code	Sex
Z1	M
Z2	M
Z3	M
Z4	M
Z5	F
Z6	M
Z7	F
Z8	F
Z9	M
Z10	F
Z11	F
Z12	M
Z13	M
Z14	F
Z15	M
Z16	M
Z17	F
Z18	F
Z19	F
Z20	F
Z21	F
Z22	F
Z23	F

Sampling is a statistical procedure for selecting an appropriate sample of people from a target group (Majid, 2018). For research investigations, sampling is a crucial tool. A great sample is measurable and large enough to achieve the study objectives. The research sample was made up of 23 students in the third

year of Madrasah Aliyah in Demak, who were chosen using simple random sampling.

The instrument can be said as a tool that researcher use to gather and measure quantitative data about the variable being studied (Nasution, 2017). Two methods were utilized to gather data for this study, one to assess students' vocabulary competence and the other to assess descriptive reading ability. The students' vocabulary proficiency was measured by using vocabulary test and their descriptive reading competence was measured by using reading comprehension test.

The students' vocabulary skills were analyzed quantitatively by asking them to memorize vocabulary and reading comprehension was analyzed by multiple choices as a test. According to Dian Ayunita N.N. Dewi (2018), validity is the accuracy of a tool in measurement. Validity is an important thing in any test of the study. A test can be considered valid if it provides accurate results for the goal of using the quiz. The writer utilized SPSS to observe the items for the vocabulary assessment in this study. The writer also selected the actual English teacher to be the expert judgment and asks her to observe the test items in reading comprehension test and this is a process to clearly identify what suitability will be measured.

The reliability test determines the consistency of the measurement device. The reliability test examines the consistency of the measuring equipment by determining if it is used consistently and stays consistent when measurements are repeated (Dewi, 2018). There are many methods to determine reliability. They are; stability, equivalence, equivalence and stability, rater reliability, and internal reliability. The reliability of this study was assessed using SPSS software and the Cronbach's Alpha formula.

The researcher employed an achievement exam as a data collection approach in this study. An achievement test is a limited test of material and discussed in the curriculum for a certain period of time and usually offered after the course has focused on the intended goal (Aisyah, 2015). It is intended that information about students' vocabulary competence and descriptive reading ability will be gathered using this technique.

The vocabulary quiz was used to find out the meaning or usage of a list of words used as part of an ingenuity test (Merriam, 2010). The test has 10 questions and 20 vocabularies, the 20 vocabularies being used to evaluate students' vocabulary mastery and the 10 questions being used to evaluate students' descriptive reading ability. Multiple choice questions and ten vocabularies to memorize were utilized in the test. In this analysis, the researcher applied quantitative research. Quantitative research is defined as a method for solving problems through data collection in numerical form (Apuke, 2017).

To solve the research topic, the researcher utilized the following technique:

1. The data was calculated using SPSS to determine vocabulary mastery and reading comprehension..
2. The researcher employed the Pearson product moment correlation coefficient (r) in the SPSS 21.0 program for Windows to examine the relationship between students' vocabulary proficiency and descriptive reading comprehension. The degree of freedom (df) = $N - nr$ (N = number of samples, nr = number of variables) was used to get the product moment correlation coefficient. Statistically, the hypotheses are:

H_a : There is a positive correlation between students' vocabulary mastery and descriptive reading comprehension.

H_0 : There is no positive correlation between students' vocabulary mastery and descriptive reading comprehension.

Then, using this table below, the strength of the correlation is determined:

Table 2. The Correlation Coefficient Interpretation

Interval of Coefficient	Interpretation
0.80-1.000	Very strong
0.60-0.799	Strong
0.40-0.599	Less strong
0.20-0.399	Weak
0.00-0.199	Very weak

Source : (Riduwan; Warsiman, 2008)

RESULT AND DISCUSSION

Following is the collection of data for this study; the researcher examined the instrument's validity, including both the validity of the vocabulary test and the validity of the reading comprehension test.

An expert's judgment has verified the reading comprehension tool. In addition, the validity of the vocabulary test instrument was assessed using SPSS software. The validation results are shown in the table below:

Table 3. Validation Result

Item	R hitung	R tabel	Keterangan
X1	0.449	0.4132	<i>Valid</i>
X2	0.431	0.4132	<i>Valid</i>
X3	0.469	0.4132	<i>Valid</i>
X4	0.481	0.4132	<i>Valid</i>
X5	0.481	0.4132	<i>Valid</i>
X6	0.552	0.4132	<i>Valid</i>
X7	0.693	0.4132	<i>Valid</i>
X8	0.673	0.4132	<i>Valid</i>
X9	0.754	0.4132	<i>Valid</i>
X10	0.462	0.4132	<i>Valid</i>
X11	0.629	0.4132	<i>Valid</i>
X12	0.647	0.4132	<i>Valid</i>
X13	0.770	0.4132	<i>Valid</i>
X14	0.728	0.4132	<i>Valid</i>
X15	0.507	0.4132	<i>Valid</i>
X16	0.605	0.4132	<i>Valid</i>
X17	0.540	0.4132	<i>Valid</i>
X18	0.465	0.4132	<i>Valid</i>
X19	0.465	0.4132	<i>Valid</i>
X20	0.465	0.4132	<i>Valid</i>

The test called reliable where it shows the consistency of the score result. The researcher used SPSS software to calculate the reliability with the Cronbach's Alpha formula in this research.

The writer begins by calculating the questions' reliability test from the Vocabulary exam. Cronbach's Alpha was 0.924 when the questions from the Vocabulary exam were answered. It implies that the questions from the

vocabulary quiz were also trustworthy and ready to use. The result is shown in at the table 4. below:

Table 4. Reliability statistic of Vocabulary Test

Reliability Statistics	
Cronbach's Alpha	N of Items
0.924	20

While the Cronbach's Alpha for the questions from the reading comprehensive test was 0.161, this indicates that the questions from reading comprehension were dependable and ready to use. The following table shows the outcome:

Table 5. Reliability Statistic of Reading Comprehension Test

Reliability Statistics	
Cronbach's Alpha	N of Items
0.161	10

The data normality was determined by the researcher. This corresponds to the statistical correctness of the selection test. The data normality was analyzed by Kolmogorov-Smirnov test from SPSS program. The result was shown as follow:

Table 6. Result of Normality Test

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		23
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	16.96050894
Most Extreme Differences	Absolute	.151
	Positive	.127
	Negative	-.151
Test Statistic		.151
Asymp. Sig. (2-tailed)		.189 ^c

- a. Test distribution is Normal.
- b. Calculated from data.
- c. Lilliefors Significance Correction.

As we can see on the table above, the distribution of the data was normal because the sign (2-tailed) in 0.189 was higher than 0.05. It could also be said that the Null Hypothesis was accepted.

The researcher looked into the data and the relationship between students' vocabulary competency and descriptive reading ability after collecting data from the Reading and Vocabulary test. To assess the association between students' vocabulary ability and descriptive reading comprehension, the researcher used the coefficient of Pearson product moment computation in the SPSS program. The table below shows the results of the correlation analysis:

Table 7. Result of Correlation Analysis

		Reading	Vocabulary
Reading	Pearson Correlation	1	.700**
	Sig. (2-tailed)		.000
	N	23	23
Vocabulary	Pearson Correlation	.700**	1
	Sig. (2-tailed)	.000	
	N	23	23

** . Correlation is significant at the 0.01 level (2-tailed).

According to the data, there was a relationship between students' vocabulary ability and descriptive reading comprehension, as shown in the tables above with a significant value of 0.000 0.005.

Table 8. The interpretation of Correlation Coefficient

The Interval of Coefficient	Interpretation
0.80-1.000	Very strong
0.60-0.799	Strong
0.40-0.599	Less strong
0.20-0.399	Weak
0.00-0.199	Very weak

(Riduwan; Warsiman, 2008)

The correlation coefficient is strong, with a score of 0.700. It's somewhere between 0.60-0.799. There is a significant degree of meaningful link. Based on data, there was a significant association between students' vocabulary and descriptive reading skills. After completing the investigation, the researcher discussed the findings and compared them to the findings from other studies. In this research, the positive correlation happens between the students' vocabulary

mastery and descriptive reading comprehension in Pearson correlation 0.700. This result of this research was supported by previous studies from Lestari (2018) and Bahri (2019). The writer can say that the Alternative Hypothesis can be accepted because of the result of Pearson Correlation.

From the correlation result and supporting study as proposed above, the null hypothesis which stated that “ there is no positive correlation between students’ vocabulary mastery and their descriptive reading comprehension of the twelfth grades in private madrasah Aliyah near Demak” is *rejected*, and the alternative hypothesis which stated that “there is positive correlation between students’ vocabulary mastery and their descriptive reading comprehension of the twelfth grades in private madrasah Aliyah around in Demak” is *accepted*.

CONCLUSION

Based on the result of this study, the researcher identified a positive association between students' vocabulary competence and descriptive reading skills in the twelfth grade at Madrasah Aliyah near Demak. The correlation analysis yielded a 0.700 score, indicating a high degree of correlation. In the academic year 2020/2021, there was a positive correlation between students' vocabulary mastery and descriptive reading comprehension in twelfth grades in madrasah Aliyah surrounding Demak. As a result, this study showed the Null Hypothesis and Alternative Hypothesis in the method of the study, and then the researcher can conclude that the Alternative Hypothesis (Ha) is accepted in which there a positive correlation between students’ vocabulary mastery and their descriptive is reading comprehension.

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