

***THE CORRELATION BETWEEN THE VOCABULARY MASTERY  
AND READING COMPREHENSION'S ABILITY OF THE FIFTH  
SEMESTER STUDENTS OF ENGLISH STUDY PROGRAM FKIP  
UNIVERSITAS RIAU***

**Roby Alfahri, Dr. Dahnilsyah, SS.MA, Drs. M. Syarfi, Dipl, IT.,MA**

Email: robyalfahri@gmail.com, danil\_71@yahoo.com, syarfi2016@gmail.com

Phone number: 085819931271

*Student of English Study Program  
Language and Arts Department  
Faculty of Teacher Training And Education  
Universitas Riau*

***Abstract:*** This correlational research is aimed to find out whether there is a correlation between vocabulary mastery and reading comprehension's ability of the fifth semester students of English Study Program FKIP-UR. The sample was 28 students selected through cluster random sampling. The instruments used in this research were the vocabulary and reading TOEFL test items. The research finding revealed that the vocabulary mastery test result of the fifth semester students of English Study Program FKIP-UR was at the good level (75), and their reading comprehension's ability was at good level (69) also. Based on Pearson correlation analysis, it was obtained that the correlation coefficient between the students' vocabulary mastery and reading comprehension's ability was 0.876 with the sig. value=0.00. Hence, it could be concluded that there was a very high correlation between the vocabulary mastery and reading comprehension's ability of the fifth semester students of English Study Program FKIP-UR. As a consequence, the null hypothesis was rejected and alternative hypothesis was accepted.

***Key Words:*** Correlation, Vocabulary Mastery, Reading Comprehension's Ability

# **KORELASI ANTARA PENGUASAAN KOSAKATA DAN KEMAMPUAN PEMAHAMAN MEMBACA MAHASISWA SEMESTER LIMA PROGRAM STUDI BAHASA INGGRIS FKIP-UR**

**Roby Alfahri, Dr. Dahnilsyah, SS.MA, Drs. M. Syarfi, Dipl, IT.,MA**

Email: robyalfahri@gmail.com, danil\_71@yahoo.com, syarfi2016@gmail.com

No. Hp: 085819931271

Mahasiswa Program Studi Bahasa Inggris  
Jurusan Bahasa dan Seni  
Fakultas Pelatihan Guru dan Pendidikan  
Universitas Riau

**Abstrak:** Penelitian ini bertujuan untuk mengetahui apakah ada hubungan diantara penguasaan kosakata dan kemampuan pemahaman membaca dari mahasiswa semester lima Program Studi Bahasa Inggris FKIP-UR. 28 mahasiswa dipilih menggunakan teknik *cluster random sampling*. Instrumen yang digunakan dalam penelitian ini adalah soal-soal vocabulary dan reading dari tes TOEFL. Hasil Penelitian menunjukkan bahwa kemampuan penguasaan kosakata dari mahasiswa semester lima Program Studi Bahasa Inggris FKIP-UR adalah pada tingkatan baik (75), dan hasil dari kemampuan membaca mereka juga berada di tingkatan baik (69). Analisa korelasi Pearson menunjukkan bahwa nilai koefisien korelasi antara penguasaan kosakata dan kemampuan pemahaman membaca mahasiswa semester lima Program Studi Bahasa Inggris FKIP-UR adalah 0.876 dengan nilai signifikansi 0.00. Karenanya, dapat disimpulkan bahwa terdapat korelasi yang sangat tinggi diantara penguasaan kosakata dan kemampuan pemahaman membaca dari mahasiswa semester lima Program Studi Bahasa Inggris FKIP-UR. Dengan demikian H0 ditolak dan H1 diterima.

**Kata Kunci:** Korelasi, Kosa Kata, Kemampuan Pemahaman Membaca

## INTRODUCTION

Roehrig and Guo (2011) explained that vocabulary knowledge is one of the major factors that influence reading comprehension. While Reading in general is assigning meaning and extracting information from written texts. This implies that reading requires some abilities to extract information from a text and to construct new understanding (Grellet). The correlation of vocabulary and reading is cannot be declined, but about the correlation between these two variables with the test result is one of interesting area to be researched.

In the English Study Program of Faculty of Teacher Training and Education Universitas Riau, reading skill is taught in five distinctive levels, it is listed on the curriculum of Universitas Riau, they are Reading Comprehension I, II, III, and also with the Academic Reading and Writing and Extensive Reading. Then, the Vocabulary subject is taught once at the first semester. But vocabulary is also used for the entire of the reading's learning process. The students keep in touch with vocabulary even they do not studying it as a subject lesson. It means that vocabulary is announced to be a part of reading subject. On the contrary, the fact about the lack of the vocabulary mastery of the students often occurs even though they have met the learning process that used vocabulary before. Many of the students feel so hard to answer the questions that are given to them because they do not know the meaning of some words. Furthermore, it can be the strong reason to do a research about the correlation between the vocabulary mastery and the reading comprehension's ability of the fifth semester students of English study program Universitas Riau to know if there is a correlation about them or not. In addition, the TOEFL test also using reading as a test that means the students should have the good comprehending in reading to pass the exam. They need 500 TOEFL test score as one of the requirement that is needed to graduate, but again, the results of their TOEFL are not exactly good. The data from UPT of Universitas Riau shows many of the students's score are under 500. After knowing the fact of the students, it can be concluded that the research about these correlation is needed.

Before testing these variables, the problems that are always happen in reading make the clue for the test that should be tested for the students. Snow (2002, 11) stated that the text, the reader and the activity affect the reading comprehension. The text affects the reading comprehension in the matter of how the text is built by the writer. The readers affect their reading comprehension through information they have in their background knowledge. Every reader has different interpretation of meaning depending on their background knowledge. The activity of reading will affect reading comprehension in the way of how it leads readers to construct the meaning. It involves the purpose of reading and the reading techniques.

According to Klingner, Vaughn and Broadman (2007, 6), there are some factors from readers' basic skills which cause difficulties in reading comprehension. Those factors are word reading, fluency, vocabulary mastery, and world knowledge. When the readers have difficulties in decoding or reading words, they feel hard to understand the meaning of the text. If they read slowly and inaccurately, it also becomes interference for their reading comprehension. The knowledge of the words in varied contexts and background knowledge of the topic discussed also affect reading comprehension. Although, the readers have high fluency, it will be difficult to comprehend the text without sufficient knowledge of the words in the context. It can be concluded that there are some factors affecting reading comprehension. Those factors

are the word knowledge, the world knowledge, and the readers' ability. Those aspects are varied among the readers so every reader has various stages of comprehension. So the instruments of the test must in line with the subjects tested. If the tests are reliable and valid, we can take the result of the question if there is a correlation between vocabulary mastery and reading comprehension's ability of the fifth semester students of English Study Program FKIP-UR.

## **METHODOLOGY**

This research belongs to correlational research with determines the relationship between students' vocabulary mastery as the variable X, and their listening comprehension as variable Y. this research was conducted at the English Study Program FKIP-UR with 28 students of the fifth semester as the samples of the research. The instruments that used in this research are vocabulary and reading test for TOEFL. The collected data were analyzed by using IBM SPSS and Ms. Excel.

The data used in this research is in the form of quantitative data. According to Woodbury (2002), quantitative data is the data that are comprised of numerical values. There are two kinds of data that were included in this research, they are the primary data which were taken from the respondents' vocabulary test scores and the secondary data which were obtained from the TOEFL reading comprehension scores.

The data processing operations that is used is from Kothari (2004);

1. Editing- a process of examining the collected raw data to detect errors and omissions and to correct these when possible. It is needed to assure that the data are accurate and complete.
2. Coding  
Coding is to change the information into symbol either in a sentence. This intended to make the data easier to be analyzed. For this research, the researcher used numerical symbols (1=Correct answer, and 0=Wrong answer), it was used to describe the point that each students get from the questions.
3. Classification  
a process of arranging data in groups or classes on the basis of common characteristics. For example, the score of students' vocabulary test and reading will be divided into different table of score.

After the data of the test tests is taken, the individual Scoring is needed to know the score of each person in the sample, the scores will be converted to 100 point score due to the fact that the provided data is still in the form of raw score which only consists of the number of correct answer of the reading comprehension test and vocabulary test. To know the transformed score of individuals' reading comprehension in 100 point score, the following formula that will be used is:

$$M = \frac{X}{N} \times 100$$

Where:

- M = Individual Score  
 X = Number of correct answer  
 N = Number of items

**Heaton (1974)**

#### 4. Tabulation

Tabulation is the process of summarizing raw data and displaying the same in compact form for further analysis. It is an orderly arrangement of data in columns and rows. Tabulation is essential because:

- It conserves space and reduces explanatory and descriptive statement to a minimum.
- It facilitates the process of comparison.
- It facilitates the summation of items and the detection of errors and omissions.
- It provides the basis for various statistical computations.

Tabulation may also be classified as simple and complex tabulation. Simple tabulation generally results in one-way tables which supply answers to questions about one characteristic of data only. Complex tabulation usually results on two-way tables (which give information about two inter-related characteristics of data), three –way tables or still higher order tables, also known as manifold tables. In this research, the data were tabulated in some tables by using IBM SPSS and Microsoft Excel.

The blueprint of vocabulary test consists of four types (Odd one out, Complete the Gaps, Choose the Correct Words, and Matching), 25 test items are put in the test and taken from the vocabulary test for TOEFL. The blueprint of reading comprehension's ability have five topics in with 50 questions, they are about textbooks on Biology, Physics, Geography, American History, Biography, Economics, Social Sciences, and Art. All of the test is in the 1-100 point score. Then the score of these test classified into fifth classes; they are very poor, poor, mediocre, good, and excellent. The classification table is adapted from Harris (1974).

Table 1. Classification of the Students' Vocabulary and Reading Score

Score	Ability Level
81 - 100	Excellent
61 - 80	Good
41 - 60	Mediocre
21 - 40	Poor
0 - 20	Very Poor

After the data of both variables were collected, the normality and the linearity of the data were also tested before conducting correlation statistical analysis. To discover the correlation between two variables, Pearson correlation coefficient analysis were

used to analyze the data. Then, the correlation coefficient was interpreted by using interpretation table developed by Muijs (2004).

Table 2. The Interpretations of Correlation

$r_{xy}$	Interpretation
<b>0.00 – 0.20</b>	There is a very low correlation between the two variables
<b>0.21 – 0.40</b>	There is a low correlation between the two variables
<b>0.41 – 0.60</b>	There is a moderate correlation between the two variables
<b>0.61 – 0.80</b>	There is a high correlation between the two variables
<b>0.81 – 1.00</b>	There is a very high correlation between the two variables

## RESULT AND DISCUSSION

### The Result of Descriptive Analysis

The students' vocabulary mastery was measured by the 25 items and 50 items for the reading comprehension's ability test.

Table 3. Descriptive Statistics Analysis of Vocabulary and Reading

	N	Minimum	Maximum	Mean	Std. Deviation
Vocabulary	28	52	92	74.71	11.421
Reading	28	48	92	69.00	11.744
Valid N (listwise)	28				

Based on the table 3, the result of vocabulary shows that the minimum score that the respondents is 52, and the maximum score is 92 with the mean score of 28 respondents is 75. Meanwhile, the reading result shows the minimum score of the respondents is 48, and the maximum is 92 with the mean score of 28 respondents is 69. The score shows that the mean score of vocabulary is higher than the reading.

To summarize the data, the researcher classified the data into five group, they are Excellent, Good, Mediocre, Poor, and Very Poor. (Harris 1974).

Table 4 The Percentage of the Students' Vocabulary Score

NO	Range Score	Frequency	Percentage	Level	Average Score
1	81-100	10	35%	Excellent	75
2	61-80	15	54%	Good	
3	41-60	3	11%	Mediocre	
4	21-40	0	0%	Poor	
5	0-20	0	0%	Very Poor	
Total		28	100%		

Based on the table 8.0, it can be reported that the biggest percentage of the students' vocabulary test result belongs to the good group with 54% of the overall percentages, and the lowest belongs to mediocre with 11%. There is no students getting under or equal 40. It means that the poor and very poor is not exist. Meanwhile the percentage of reading score is as follow,

Table 5 The Percentage of the Students' Reading Score

NO	Range Score	Frequency	Percentage	Level	Average Score
1	81-100	4	14%	Excellent	69
2	61-80	15	54%	Good	
3	41-60	9	32%	Mediocre	
4	21-40	0	0%	Poor	
5	0-20	0	0%	Very Poor	
Total		23	100%		

The Table 8.2 explain that the percentage of the students who get the score above 61 to 80 is 54% and being the largest, but the mediocre statistics are greater in reading score than the vocabulary score, it means that there are many people getting 41-60, the average score of reading of the students is 69.

### The Result of Normality and Linearity Test

To determine if the data distribution is normal or not, the researcher conducted normality and linearity test to decide what kind of correlation statistical analysis that can be used to the subject research. The result of the test is presented below

Table 6 Tests of Normality

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Vocabulary	.150	28	.106	.940	28	.111
Reading	.105	28	.200*	.970	28	.582

\*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

According to Kolmogorov-Smirnov normality test, the Sig. values of vocabulary and reading are 0.106 and 0.200, while Shapiro-Wilk showed the sig. values at 0.111 and 0.582 for vocabulary and reading. Based on the criteria of normality test, the data distribution considered normal if the sig. value is higher than 0.05. It can be inferred that the data is normal, because both of the test showed sig. values bigger than the minimum requirement.

After that, the linearity test is needed to test both of the data have linear relationship each other. The result of this test is presented below.

Table 7. ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2857.013	1	2857.013	85.679	.000 <sup>b</sup>
	Residual	866.987	26	33.346		
	Total	3724.000	27			

a. Dependent Variable: Reading

b. Predictors: (Constant), Vocabulary

Based on the ANOVA table above, the sig. value = 0.000 is less than  $\alpha=0.05$ . as a result, it can be concluded that there is a linear relationship between vocabulary mastery and reading comprehension's ability. Because the data is normal and linear, the Pearson Product Moment Correlation Coefficient Analysis can be used.

### The Result of Correlation Analysis

The hypothesis that needs to be tested in this research is that if there is a correlation between the fifth semester students of English Study Program FKIP-UR. To get the real hypothesis, the Pearson correlation is used to measure the relationship between these two variables. The result of the correlation is presented below.

Table 8. Correlations

		Vocabulary	Reading
Vocabulary	Pearson Correlation	1	.876 <sup>**</sup>
	Sig. (2-tailed)		.000
	N	28	28
Reading	Pearson Correlation	.876 <sup>**</sup>	1
	Sig. (2-tailed)	.000	
	N	28	28
**. Correlation is significant at the 0.01 level (2-tailed).			

Based on the table 10, it can be seen that the output of the correlation analysis show that there is a positive correlation between these two variables, the coefficient of correlation is 0.876 ( $r=0.876$ ). it can be inferred that if the students vocabulary mastery is increased, the level of their reading comprehension's ability will be increased too. From the table interpretation of correlation, 0.876 indicates that there is very high correlation between these variables. According to the hypothesis:



If Sig. value  $< \alpha$ , so  $H_0$  is rejected,  $H_1$  is accepted

If Sig. value  $> \alpha$ , so  $H_0$  is rejected,  $H_1$  is accepted

From the table, the sig value is 0,00, and  $\alpha=0.05$ ,  $H_0$  is rejected and  $H_1$  is accepted. It can be concluded that there is a relationship between vocabulary mastery and reading comprehension's ability.

## Discussion

Based on the result of descriptive statistical analysis of the students' vocabulary mastery and reading comprehension's ability data, it was found that the vocabulary score of the students was classified in "good" level (54%) which is the most score that the students get from the test with the average score "75", then 10 students get "excellent" with the 35% percentage, as we know that the excellent group is consist of the score from 81-100, and the rest of students get "mediocre" group. A little different from that, the score "excellent" from the students in reading is only 14% with only 4 students get it. A line with the score of vocabulary, the students who get score from the range 61-80 are consist of 15 students with 15% percentage, and mediocre for the rest of it. But the fact come with the average score which is 69, it means that the scores of the students for overall is still at "good" level. It can be concluded that both of these variables have the similarity in the range score.

The analyzing of the correlation between these two variables using Pearson, it was found that there is a very high correlation between vocabulary mastery and reading comprehension's ability of the students. The result shows that the correlation of these variables is at 0.876, the fact that the Null hypotheses is rejected and  $H_1$  is accepted because of the sig. value of this correlation is in 0.00 which is lesser than 0.05. In this case, we find the result from the question, is there any correlation between the students vocabulary mastery and reading comprehension's ability with the answer, there is a strong correlation between the students vocabulary mastery and reading comprehension of the fifth semester student of English Study Program FKIP-UR.

## CONCLUSIONS AND RECOMMENDATIONS

### Conclusion

After conduction a research entitled "The Correlation between Vocabulary Mastery and Reading Comprehension's Ability of the Fifth Semester Students of English Study Program FKIP-UR", the researcher generates some conclusion based on the findings. First, it can be concluded that the vocabulary mastery of the fifth semester students of English Study Program FKIP-UR is on the good level with the average score 75, while their reading comprehension give the average score 69 which is still in the good level. The fact that the reading scores of the students put many students in mediocre level, but the scores are almost hitting the good range scores, it is the answer why the students still getting the good range scores. Second, due the data of the Pearson,

it can be concluded that there is a very high correlation between the vocabulary mastery and reading comprehension's ability of the students, it stated with 0.876 for the correlation coefficient.

### **Recommendation**

Based on the result of all statistical analysis above, it is recommended for the students to increase their vocabulary mastery to make their reading comprehension's ability better. The fact that vocabulary is used in all aspect of English as a part that cannot be divided makes vocabulary should be considered as an important aspect if the students want to learn English. They can try to read as much as they can and try another new words and find the meaning of it.

As a subject that has very popular place in curriculum, reading takes about more than three semester to learned, it might be good for the teacher to put more vocabulary in the reading class process, giving the games with using a lot of new vocabularies or challenge the students to use new words can give a positive impact in the reading class.

### **BIBLIOGRAPHY**

- Guo, Y., & Roehrig, A. D. (2011). Roles of General versus Second Language (L2) Knowledge in L2 Reading Comprehension. *Reading in a Foreign Language*, 23(1), 42–64
- Grellet, Frangoise. 1981. *Developing Reading Skill*. New York: Cambridge University Press.
- Mujis, Daniel. 2004. *Doing Quantitative Research in Education: with SPSS*. London: SAGE Publication Inc.
- Klingner, J. K., Vaughn, S., & Boardman, A. (2007). *Teaching Reading Comprehension to Students with Learning Difficulties*. New York, NY: The Guilford Press.
- Snow, Catherine.2002. *Reading for Understanding*. Pittsburgh: RAND Reading Study Group