

## The Correlation among EFL Students' Self-Efficacy, Vocabulary Mastery, and Reading Ability

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### Info Artikel

Masuk: 27 Juni 2024

Revisi: 20 Juli 2024

Terbit: 28 Juli 2024

**Keywords:** : self-efficacy, vocabulary mastery, reading ability

**Kata kunci:** efikasi diri, penguasaan kosakata, kemampuan membaca.

### Abstract

*The goal of this study was to measure the relationship between reading skills, vocabulary mastery, and self-efficacy among EFL students. There were twenty-four EFL students involved. In this study, students' self-efficacy was measured using a questionnaire, and their vocabulary knowledge and reading skills were measured by tests. The data was obtained via Google forms. To analyze the data, a statistical analysis was conducted using the JASP program. The study found that: (1) there was a low correlation between self-efficacy and vocabulary mastery ( $r=0.29$  and  $p=0.17$ ); (2) there was a low correlation between self-efficacy and reading ability ( $r=0.39$  and  $p=0.06$ ); and (3) there was a correlation between vocabulary mastery and reading ability ( $r=0.49$  and  $p=0.01$ ). Based on the findings, it can be stated that there was no significant correlation between self-efficacy and vocabulary mastery, nor between self-efficacy and reading ability. However, there was a significant correlation between vocabulary and reading ability. It implied that students' reading abilities increase so as their level of vocabulary mastery. In terms of theory, this study clarified how students' reading and vocabulary learning skills and their level of self-efficacy were connected. Students with high self-efficacy have a better chance of learning vocabulary and reading. In terms of practical theory, improving students' skills in mastering vocabulary can help them improve their reading ability.*

### Abstrak

*Tujuan dari penelitian ini adalah untuk mengukur hubungan antara keterampilan membaca, penguasaan kosakata, dan efikasi diri di kalangan siswa EFL (English as a Foreign Language). Sebanyak dua puluh empat siswa EFL terlibat dalam penelitian ini. Dalam penelitian ini, efikasi diri siswa diukur menggunakan kuesioner, sedangkan pengetahuan kosakata dan keterampilan membaca mereka diukur dengan tes. Data diperoleh melalui Google Forms. Untuk menganalisis data, analisis statistik dilakukan menggunakan program JASP. Penelitian ini menemukan bahwa: (1) terdapat korelasi rendah antara efikasi diri dan penguasaan kosakata ( $r=0.29$  dan  $p=0.17$ ); (2) terdapat korelasi rendah antara efikasi diri dan kemampuan membaca ( $r=0.39$  dan*

*p=0.06); dan (3) terdapat korelasi antara penguasaan kosakata dan kemampuan membaca ( $r=0.49$  dan  $p=0.01$ ). Berdasarkan temuan tersebut, dapat dinyatakan bahwa tidak ada korelasi yang signifikan antara efikasi diri dan penguasaan kosakata, maupun antara efikasi diri dan kemampuan membaca. Namun, terdapat korelasi yang signifikan antara penguasaan kosakata dan kemampuan membaca. Hal ini mengimplikasikan bahwa peningkatan kemampuan membaca siswa sejalan dengan tingkat penguasaan kosakata mereka. Secara teoritis, penelitian ini memperjelas bagaimana keterampilan membaca dan belajar kosakata siswa serta tingkat efikasi diri mereka saling berhubungan. Siswa dengan efikasi diri yang tinggi memiliki peluang lebih baik dalam belajar kosakata dan membaca. Secara praktis, meningkatkan keterampilan siswa dalam menguasai kosakata dapat membantu mereka meningkatkan kemampuan membaca mereka.*

## INTRODUCTION

Vocabulary is important in everyday life, especially in community interactions and the learning process. A good vocabulary helps students understand the subject matter better. Learners can express the meaning of their ideas with their vocabulary knowledge (Abozaid & Jalaluddin, 2019). To expand their vocabulary size, students can acquire new words through reading activities. Understanding vocabulary is important for reading since it improves reading comprehension (Cleverisa et al., 2022). Reading is a crucial ability for students in order to master the knowledge and apply it in the learning process (Walidaini, 2020). This ability to read is not only being able to pronounce the word, but also being able to understand the message of the text (Sari, 2017). Studying English as a foreign language certainly presents greater difficulty compared to learning English as a second language. English as Foreign Language (EFL) learners may encounter some difficulties in understanding English material due to language limitations. In order to use English well, students must prepare vocabulary and reading ability to obtain information that can then be used for effective communication. This is supported by the knowledge that vocabulary mastery has a strong correlation with students' reading ability (Cleverisa et al., 2022). This shows that students reading ability is greatly influenced by their vocabulary mastery. Expanding vocabulary mastery will greatly help in understanding the meaning conveyed in the text.

According to Truong and Wang (2019), self-efficacy beliefs correlate positively with English skills. Self-efficacy can influence a person's conduct in either a positive or

a negative way, depending on their perception of their capacity to perform a certain activity (Wang & Sun, 2020). Self-efficacy reportedly has strong relation to EFL students' academic achievement (Ozer & Akçayoğlu, 2021). Students who have high self-efficacy will achieve good results, and vice versa. This can be interpreted as high self-efficacy can enhance students' abilities in academic fields, such as understanding and using English language. This is supported by research from research finding of Gisella, & Mulyadi (2021), that students with higher levels of self-efficacy will master more vocabulary. In addition, it has also found that self-efficacy correlated with students' reading fluency (Peura et al., 2019). Students who have strong self-efficacy are more motivated to finish a certain task, even if it is difficult to do (Bandura, 1995). Self-efficacy enables students to determine their level of effort and perseverance when completing tasks (Apriliyani & Usuludin, 2023).

This study aims to measure the correlation among self-efficacy, vocabulary mastery, and reading ability. However, the existing studies have limitations in providing an understanding of the relationship between self-efficacy, vocabulary mastery, and reading ability, due to the fact that most previous research has focused on reading comprehension. To complement previous studies, this study focuses more on investigating the correlation among the three variables and specifically targets higher level EFL student. This study is expected to provide input related to language and psychology aspects, specifically self-efficacy, vocabulary mastery, and reading ability, in order to enhance students' proficiency in understanding and mastering English.

Bandura (1997) defined self-efficacy as people's opinions or beliefs about their abilities to study or complete activities of varying grades in order to reach learning objectives. Furthermore, Pajares (1996) defined self-efficacy as a person's subjective assessment of their ability to do a task and their own competence. Weiten et al. (2015, p. 47) define self-efficacy as "belief in one's ability to perform behaviors that should lead to expected outcomes." Furthermore, Husna et al. (2021) define self-efficacy as a person's confidence in their capacity to use cognitive resources, motivation, and behaviors to effectively handle tasks. According to Hidayah et al. (2015), vocabulary mastery is the collection of words that a person is proficient in speaking and writing, including word form (pronunciation and spelling), grammar, relationships between words, collocation, word creation, and context-based word use. In addition, Suryanto et al. (2021) defined vocabulary mastery as a person's comprehension of a language's vocabulary as well as his ability to use it in speaking and in writing. Grellet (1983) defines reading as an active talent that requires continuous guessing, predicting,

checking, and questioning. Reading is the process by which people examine a text and interpret the symbols that are written within (Aebersold & Field, 1997). Writing, speaking, and listening exercises are the best strategies to improve reading abilities (Brown, 2001). The word “ability” here refers to “the state of being able to do something”, as defined in Longman dictionary. Based on the explanation above, reading ability can be referred to a person's ability to obtain information from text. In this study, reading ability refers to students' ability to understand the meaning of a book and gather information in order to improve their English skill.

In this study, researcher formulated three hypotheses. First was the higher students have self-efficacy, the higher they achieve in vocabulary mastery. Second, the higher students have self-efficacy, the higher they achieve in reading ability. Third, the higher students have vocabulary mastery, the higher they achieve in reading ability.

## **RESEARCH METHOD**

This was a quantitative research study with a correlational design. According to Latief (2016), correlational research designs are used to examine the relationship between two or more continuous variables. The study was carried out throughout the 2023-2024 academic year, from May to June 2024, in one of the universities in central Kalimantan. The researcher utilized the G\*power sample size calculator to calculate the minimum sample size required for the study. The estimated minimum sample size of 23 individuals was calculated from a total of 38 students.

The researcher adapted Gu's (2018) vocabulary learning questionnaire to measure the students' mastery in vocabulary learning. There were 45 statements in this questionnaire. The analysis (Gu, 2018) revealed that the validity was greater than 0.5 and the reliability was greater than 0.80. Wang et al. (2014)'s reading self-efficacy questionnaire was additionally used by the researcher. There were eight items associated to self-efficacy in reading. The reliability of items related to self-efficacy in reading was found to be 0.88. The researcher adopted McLean and Kramer's (2015) new vocabulary levels test (NVLTL) to assess students' vocabulary mastery. Previous research had provided evidence supporting the NVLTL's validity and reliability (Hsu, 2018; Laufer & Aviad-Levitzky, 2017; Laufer & McLean, 2016). In addition, students' reading comprehension was measured using the Cambridge English: A2 key reading test. The test has a reliability of 0.85.

Data analysis was performed using JASP 0.18.3.0 after collecting the data. The researcher performed Shapiro-Wilk tests to check whether the variables' distribution was normal. After determining that the distribution of the variables was normal and

linear, the researcher used Pearson's correlation coefficient to calculate the correlation between variables.

## RESULT AND DISCUSSION

### A. Penyebaran Bantuan Sosial

To interpret the self-efficacy score, an interpretation table from Galiza et al. (2018) was adapted in this study. In addition, to categorize the students' test scores, the researcher used a table of student score classification from Male (2019).

**Table 1** Students' Self-Efficacy Score Interpretation

Score Range	Interpretation	F	%
1 – 25	Very Low	0	0
26 – 50	Low	0	0
51 – 75	High	14	58,3
76 – 100	Very High	10	41,7
<b>Total</b>		<b>24</b>	<b>100</b>

It is clear from the above table that 41,7% of students had very high self-efficacy and 58,3% of all students had high self-efficacy. None of the students, however, showed extremely low or low self-efficacy.

**Table 2** Students' Vocabulary Test Score

Score Range	Category	F	%
90 – 100	Excellent	4	16,6
70 – 89	Good	19	79,2
50 – 69	Fair	1	4,2
0 – 49	Low	0	0
<b>Total</b>		<b>24</b>	<b>100</b>

According to the table above, 16.6% of students received an excellent score, while 79.2% had a good mark. 4.2% of the pupils received a fair score, while no student received a low score.

**Table 3** Students' Reading Test Score

Score Range	Category	F	%
90 – 100	Excellent	1	4,2
70 – 89	Good	3	12,5

50 – 69	Fair	9	37,5
0 – 49	Low	11	45,8
<b>Total</b>		<b>24</b>	<b>100</b>

As can be seen from the above table, only 4,2% of all students received an excellent score, while 12,5% received a good mark. 37.5% received fair marks, while 45.8% received low marks.

**Table 4** Normality Test

	<b>Self- Efficacy</b>	<b>Vocabulary Test</b>	<b>Reading Test</b>
Valid	24	24	24
Mean	73,7	80,83	55,18
Std. Deviation	6,93	9,43	18,81
Shapiro-Wilk	0,95	0,94	0,95
P-value of Shapiro-Wilk	0,32	0,16	0,26
Minimum	62	56	15,4
Maximum	87,6	96	92,4

The analysis revealed that the reading test had a P-value of 0.26, the vocabulary mastery test had a P-value of 0.16, and the Shapiro-Wilk self-efficacy test had a P-value of 0.32. All of these values were significantly normal and higher than 0.05.

**Table 5** Linearity Test of Self-Efficacy and Vocabulary

ANOVA						
Model		Sum of Squares	df	Mean Square	F	p
H <sub>1</sub>	Regression	167,967	1	167,97	1,96	0,17
	Residual	1879,36	22	85,43		
	Total	2047,33	23			

The results of the vocabulary and self-efficacy tests' linearity analyses revealed  $p=0,17$ . The results of the significant value larger than 0.05 indicate that the relationship between the vocabulary test and self-efficacy was linear.

**Table 6** Linearity Test of Self-Efficacy and Reading

ANOVA						
Model		Sum of Squares	df	Mean Square	F	p
H <sub>1</sub>	Regression	1231,43	1	1231,43	3,92	0,06
	Residual	6911,06	22	314,14		
	Total	8142,49	23			

The results of the reading and self-efficacy tests' linearity analysis revealed  $p=0,06$ . The results of the significant value larger than 0.05 indicate that the relationship between the vocabulary test and self-efficacy was linear.

**Table 7** Pearson Correlation of Self-Efficacy and Vocabulary Mastery

Pearson's Correlations			
Variable		Self-Efficacy	Vocabulary Test
1. Self-Efficacy	Pearson's r	—	
	p-value	—	
2. Vocabulary Test	Pearson's r	0,29	—
	p-value	0,17	—

The results found  $r=0.29$  and  $p=0.17$ . It indicated that there was a weak positive relationship between self-efficacy and vocabulary knowledge. Furthermore, the results do not show that the correlation was statistically significant.

**Table 8** Pearson Correlation of Self-Efficacy and Reading Test

<b>Pearson's Correlations</b>			
<b>Variable</b>		<b>Self-Efficacy</b>	<b>Reading Test</b>
1. Self-Efficacy	Pearson's r	—	
	p-value	—	
2. Reading Test	Pearson's r	0,39	—
	p-value	0,06	—

The results showed  $r = 0.39$  and  $p = 0.06$ . It indicated that there was a positive relationship between self-efficacy and reading ability. The findings also revealed that the significance value was greater than the standard requirement of 0.05 ( $p > 0.05$ ), indicating that there was no significant correlation between self-efficacy and reading ability.

**Table 9** Pearson Correlation of Vocabulary and Reading Test

<b>Pearson's Correlations</b>			
<b>Variable</b>		<b>Vocabulary Test</b>	<b>Reading Test</b>
1. Vocabulary Test	Pearson's r	—	
	p-value	—	
2. Reading Test	Pearson's r	0,49	—
	p-value	0,01	—

The results were  $r=0.49$  and  $p=0.01$ . Between the variables, the result indicated a positive correlation. The correlation was considered as moderate. The significant value was below the standard requirement of 0.05 ( $p > 0.05$ ) shows a significant correlation between the variables. Based on the findings, we may conclude that vocabulary mastery and reading ability were significantly correlated.

The findings of this study could only prove the third hypothesis, which is that the higher students have vocabulary mastery, the higher they achieve in reading ability. This study supported the previous research (Cleverisa et al., 2022), which was a correlational study to assess the correlation between vocabulary mastery and reading ability. This study included 34 students. The participants were given vocabulary and reading tests to assess their comprehending of learning English. The results indicated  $r=0.8769$  and  $p > 0.05$ . It showed a strong correlation between the variables.

The results of the analysis for the first hypothesis were  $r = 0.29$  and  $p=0,17$ . Even though the results showed a correlation between self-efficacy and vocabulary knowledge, the correlation was deemed low. The relationship between the variables was also not significant, as the p-value was more than 0.05. The analysis for the second hypothesis showed  $r = 0.39$  and  $p = 0.06$ . Even though the results indicated a correlation between self-efficacy and reading ability, the association was considered as moderate. The relationship between the variables was also not significant, as the p-value was more than 0.05.

These findings differ from what the researcher predicted. Because of these findings, the researcher investigated why there were no significant connections between the factors. Based on the analysis performed by the researcher, the researcher believes that this insignificance could be caused by a variety of variables.

## CONCLUSIONS

The researcher had some difficulty collecting reference sources for this research because there are few studies on the relationship between self-efficacy, vocabulary mastery, and reading ability, particularly those that focus on English as a foreign language student. As a result, this research might contribute to improving our understanding of self-efficacy, vocabulary mastery, and reading ability.

According to the findings of the analysis, the researcher made conclusions of this study. First, there was a weak positive correlation between students' self-efficacy and their vocabulary mastery but the correlation was not significant. Second, there was a positive correlation between students' self-efficacy and their reading ability but the correlation also not significant. Third, there was a positive and significant correlation between students' vocabulary mastery and their reading ability.

There are numerous factors that could explain the nonsignificant result. First, the instruments utilized by the researcher may lack validity and reliability, resulting in incorrect data. Second, the researcher reasoned that an insufficient sample size could limit the statistical power of the analysis. Third, the researcher may have used an incorrect design. At last, incorrect data collection and interpretation may result in a non-significant association.

In conducting this study, there were some limitations that the researcher faced when collecting data. The instrument used in this study had large number of items that might burden the participants which could be causing the inaccurate result. However, there could have been some inaccuracies in the data collection procedure. Due to online data collection, researcher had limitations in monitoring the participants

condition while taking the questionnaire and test. It was hard to made sure whether the participants understand and focus at the time.

Based on previous experience, it is suggested that in order to maximize time efficiency and provide clear instructions to participants for completing the test and questionnaire, data collection should ideally be done in person. Furthermore, future study should also seriously consider the number of participants and the instruments that will be used, as these factors have significant impacts on the accuracy of statistical measures, especially in finding correlations between variables. It is also recommended that teachers must be very attentive to students' learning processes and must design a suitable learning environment to enhance students' self-efficacy. If students' self-efficacy increases, their vocabulary mastery and reading abilities will also improve. Although this research is not yet perfect, the researcher hopes that it will be beneficial for future researchers who wish to study related subjects and use it as a reference.

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