

THE CORRELATION BETWEEN STUDENTS' VOCABULARY MASTERY AND SPEAKING ABILITY AT A PRIVATE SCHOOL IN JAMBI

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Abstract

English is used in various fields, one of which is education because it opens the way for students to access various educational resources and job opportunities in the future. Therefore, English language proficiency is very important for students. A study is needed on the correlation between vocabulary mastery and students' speaking ability in English. This research aimed to determine the correlation between students' vocabulary mastery and speaking ability of grade 9 of one of private schools in Jambi. This research was quantitative research that used a correlational design. The research sample was 40 students in grade nine, and total sampling was used. The instruments used in the study were a vocabulary test and a speaking test. The vocabulary test consisted of 20 questions in the form of 10 multiple-choice questions, five matches up, 5 five blank, and a speaking test in the form of describing something for 3-5 minutes. The correlation was measured through Pearson's Product-Moment. The results showed a strong relationship between vocabulary mastery and students' speaking ability, meaning that students' vocabulary mastery increased in line with their speaking ability. It can be concluded that students' vocabulary mastery and speaking ability are good, and the correlation between students' vocabulary mastery and speaking ability is at a very strong level.

Keywords: *Correlation, Vocabulary mastery, Speaking ability*

INTRODUCTION

English is a language spoken worldwide, one of the most popular international languages, and is required for communication, research, and more. English proficiency is one of the important aspects of language mastery that must be learned by students. Four skills in English must be mastered by students, namely listening skills, speaking skills, reading skills, and writing skills. Speaking is one of the most important skills of all English language skills. According to Rao (2019), speaking skills are the most important in acquiring foreign or second language learning. Similarly, Scottè (2013) also states that language is speaking. This occurs because it appreciates the importance of speaking in various aspects of life. Speaking is the main means of exposing language and a requirement for communication. Richard (2008) mentions that speaking is an individual's ability to produce and understand oral utterances. It

means a person's ability to produce ideas orally to others, which involves vocabulary and proper grammar. In honing speaking skills, it is necessary to master vocabulary because vocabulary is the key of language to communication in a foreign language (Zanoubia, 2022). In line with Nurgiantoro (2016) states that "vocabulary is a very important component and can even be called as the key in learning a foreign language because, by the richness of vocabulary, someone also determines the quality of the person's language skills" (p,338). This is often emphasized in English language teaching because speaking is more than just making sounds; it also includes the ability to engage, respond, and communicate well in everyday situations. Therefore, speaking ability requires mastering vocabulary skills as well as adapting to various communication situations.

However, there are several problems related to vocabulary mastery experienced by students, such as difficulty in understanding the meaning of words, large number of words, difficulty in pronouncing vocabulary correctly, lack of self-confidence, low learning motivation, and others. This problem is also experienced by students at one of private schools in Jambi city. Based on a preliminary survey conducted by one of the researchers on October 07, 2022, during *PLP* activities at the school, the researcher found that there was a problem, namely that students' English language skills were still at an unsatisfactory level. After interviewing Mrs. Hikmah, an English teacher at one of the private schools in Jambi, she revealed that the average student vocabulary mastery was quite low in grade nine, but several students had good English skills. English becomes difficult for students because they have limited vocabulary, and in the end, speaking becomes not fluent.

The purpose of this research is to determine whether there is a significant correlation between students' vocabulary mastery and speaking ability. The problem in this study was identified in students' mastery of language components, such as vocabulary.

Correlational design is a research design used to test the relationship between two or more variables. According to Sukardi in Afna Mauloeddin (2018), correlational research is research that involves data collection to determine whether or not there is and how much the level of relationship between two or more variables can be measured. A correlation coefficient approaches 1, then there is a strong positive relationship. Therefore, this implies a positive

relationship between the variables. if the correlation coefficient is close to -1, this implies a strong negative relationship. Therefore, this implies a negative relationship between the variables. If the correlation coefficient is 0, then there is no relationship (Lopez et al., 2023).

Previous studies were used as references for researchers to complete this research. The first is Putri's (2020) study entitled "The Correlation between Students' Vocabulary Mastery and Speaking Ability in Grade 8 Junior High School". The result of this study shows that students' vocabulary mastery and speaking ability are quite good. This is proven by the average score of 65 for vocabulary mastery and 68 for speaking ability. In addition, there is a strong correlation between students' vocabulary mastery and speaking ability. This is shown by the value of $r = 0.703$. This study is different in the object of research; the researchers used grade nine junior high school students in conducting research. The second study by Rahayu (2021) is entitled "Correlation between Students' Vocabulary Mastery and Speaking Performance at Al-Mawaddah Ponorogo Islamic Boarding School."The results of this study show that there is a significant correlation between students' vocabulary mastery and their speaking performance. Based on the results and discussion of the study, the reviewer found similarities between the research methods and variables. Meanwhile, the difference lies in the object of research. Last, Taslim (2019) entitled "Correlation between Student's Vocabulary Mastery and Speaking Skill". Based on the research results, it is shown that there is a very significant positive correlation between student's mastery of vocabulary and speaking skills in the eleventh grade at SMAN 6 Sidrap. This meant that the students lacked vocabulary. Several studies have been conducted about vocabulary and speaking in the past. Seffar (2015) and Khan (2018) analyzed teachers' and students' perceptions of the role of vocabulary and students' speaking performance. This study is different because it focuses on the research question of whether there is a significant correlation between student vocabulary mastery and speaking ability.

RESEARCH METHOD

This study used a quantitative method. Quantitative research is a research that uses quantitative data to test hypotheses. Sugiyono in Tahir (2023) states that "quantitative research is a research method that is inductive, objective and scientific where the data obtained is in the

form of numbers (scores, values) or statements that are assessed, and analyzed by statistical analysis". This is supported by Creswell (2017) who defines quantitative research design as a research approach that produces data that can be measured and analyzed with statistics to test hypotheses or answer research questions." On the other hand, correlational design is a research design used to test the relationship between two or more variables. According to Sukardi in Afna Mauloeddin (2018), correlational research involves data collection to determine whether or not there is and how much the level of relationship between two or more variables can be measured.

The population of this study was 9th-grade students who were divided into two classes, namely class IX A and B, totaling 40 people with used total sampling. According to Arikunto (2006), if the population is less than 100 people, the entire population should be taken. Still, if the population is more than 100 people, it is better to take 10-15%, 25%, or more. Based on the population description above, the population is less than 100 people. This shows that researchers can use the entire population as volunteers. Therefore, the researchers used the entire population as the research sample.

In this study, the researchers used instruments in the form of a test, namely a vocabulary test and a speaking test. In the vocabulary test, students are given a vocabulary test consisting of 10 questions in the form of multiple-choice, 5 match up, and 5 fill the blank. Meanwhile, the vocabulary test focuses on describing themselves or the classroom for 3-5 minutes in English and is assessed by the researcher and teacher using the inter-rater method. Then, to test the correlation, the data is processed using Pearson's product-moment correlation SPSS. To assess students' speaking ability, the researchers used the following assessment:

Table 1 Oral proficiency scoring categories (Brown, 2004, p. 406-407)

Score	Vocabulary	Pronunciation	Grammar
(I) Very poor	Speaking vocabulary is inadequate to express anything but the most elementary needs.	Errors in pronunciation are frequent but can be understood by a native speaker used to dealing with foreigners attempting to speak his language.	Errors in grammar are frequent, but the speaker can be understood by a native speaker used to dealing with foreigners attempting to speak his language

(II) Poor	Has speaking vocabulary sufficient to express himself simply with some circumlocutions	The accent is intelligible through often quite faulty	Can usually handle elementary constructions quite accurately but does not have thorough or confident control of the grammar
(III) Average	Able to speak the language with sufficient vocabulary to participate effectively in the most formal and informal conversations on practical, social, and professional topics. Vocabulary is broad enough that he rarely has to group for words.	Error never interferes with understanding and rarely disturbs the native speaker. The accent may be foreign.	Control of grammar is good. Able to speak the language with sufficient structural accuracy to participate effectively in most formal and informal conversations on practical, social, and professional topics.
(IV) Good	Can understand and participate in any conversation within the range of his experience with a high degree of precision of vocabulary	Errors in pronunciation are quite rare.	Able to use the language accurately on all levels normally pertinent to professional needs. Errors in grammar are quite rare
(V) Very good	Speech on all levels is fully accepted by educated native speakers in all its features, including breadth of vocabulary and idioms, colloquialisms, and pertinent cultural reference.	Equivalent to and fully accepted by educated native speakers	Equivalent to that of an educated native speaker

In this research, content validity was used to test the validity of vocabulary mastery and speaking ability. Content validity refers to the extent to which the items in an instrument adequately represent the construct being measured Zamanzadeh et al. (2015). The researchers prepared a validity test of the research instrument based on the aspects measured and, consulted with the supervisor and class teacher, and tested on the the sample subject. To test the validity of vocabulary mastery, the researchers also used product-moment correlation which was analyzed in the SPSS program.

After the instrument is tested for validity, the vocabulary test and speaking test are tested for reliability. Reliability refers to the consistency of the score results on the items contained in the test or instrument to be used, so the reliability test tests the accuracy of the measurement scale of the research instrument. In this study, the researchers used Cronbach's Alpha formula to determine the reliability of the vocabulary test to be calculated in the SPSS program. Furthermore, to test the reliability of speaking ability, the researchers used interrater reliability. The interrater reliability test is a type of test used to equalize perceptions, in this case, between researchers and other raters. The IRR coefficient used is the Cohen Kappa (K) agreement coefficient. Cohen Kappa (K) is a measure of reliability that states the consistency of measurement by two raters and can also be used to measure the consistency of two measurement tools.

In this study, the researchers used correlational analysis to test the hypothesis, namely Pearson's Product Moment correlation. The purpose of this analysis is to determine the correlation between students' vocabulary mastery and students' speaking ability in learning English at one of private schools in Jambi City. Pearson's Product Moment correlation is one of the techniques commonly used to determine the correlation between two variables.

RESULTS AND DISCUSSION

In this section, the results from written and spoken test are presented. This will provide insights into the correlation between students' vocabulary mastery and speaking ability of 9th grade at one of private schools in Jambi.

Results

A. Pilot test

A pilot test was conducted to analyze and refine the instrument items, which would then be implemented in the following phases of the research. The pilot test was conducted on 30 ninth-grade respondents from one of private schools in Jambi on October 07, 2024. The pilot test instrument consisted of 20 vocabulary mastery items, comprising 10 multiple-choice questions, 5 matching exercises, and five fill-in-the-blank items.

1. Distractor Analysis

The distractor relates to the ability of test items to differentiate between students who have mastered the material and those who have not. The distractor analysis, conducted using Microsoft Excel, yielded results as presented in Appendix 4. Based on this analysis, it was found that two options in items 1 and 2 were rejected, one option each in items 2, 8, and 9 required revision, and one option in item 3 was rejected.

Table 2 Number of students who chose the answer

Options	q1	q2	q3	q4	q5	q6	q7	q8	q9	q10
A	2	0	23	16	2	3	4	24	23	4
B	0	0	4	9	2	5	2	3	1	16
C	0	29	0	3	24	13	17	2	2	8
D	28	1	3	2	2	9	7	1	4	2

2. Difficulty level analysis

The analysis of item difficulty levels, conducted using Microsoft Excel, determined that 1 item fell into the difficult category, five items were classified as moderate, and 14 items were categorized as easy. The distribution of items based on their difficulty level classification is as follows:

Table 3 Distribution of items based on classification difficulty analysis

Classification	Number of items	Total
Difficult	18	1
Medium	4, 6, 7, 10, 16	5
Easy	1, 2, 3, 5, 8, 9, 11, 12, 13, 14, 15, 17, 19,20	14

Based on the results of this analysis, the researchers implemented the following follow-up measures:

- 1) Test items are categorized as good, meaning that they have a medium level of difficulty, are included in the research instrument, and can be reused. These include items number 4, 6, 7, 10, and 16.
- 2) Item number 18, which falls into the difficult category, is revised by re-examining factors that may have made it challenging for students to answer correctly. This

revision focuses on sentence clarity and the potential presence of difficult-to-understand terminology.

- 3) For the items that were found to be too easy, several follow-up actions were taken:
 - a) Items 1 and 2 were discarded and replaced with new items because they were too easy and had weak distractor power.
 - b) Item numbers 11, 12, 13, 14, 15, 17, 19, and 20 were revised by re-examining the factors that made these items too easy for students to answer correctly, with particular attention to sentence structure and terminology that might be too simple.
 - c) Item numbers 3, 5, 8, and 9 will be revised due to an ineffective distractor index, which allows students to easily identify the correct answer among the options. Therefore, revisions were made by changing the answer choices for multiple-choice questions.

B. Validity

The validity test is carried out with the help of SPSS version 30. The validity test is carried out to determine whether or not a variable is valid for each variable. This validity test uses the Pearson Product-Moment correlation, the commonly used significance level is $(\alpha) = 0.05$ with a sample size $(n) = 40$ respondents, then the r table is 0.312. The results show that all vocabulary mastery questions have a valid status because the r -count value of each question item has a value greater than the r -table value.

C. Reliability

A variable is said to be valid if the answer to the question is always consistent. To measure the reliability of vocabulary mastery, the statistical test used is Cronbach Alpha (α). A variable is said to be reliable if it has a Cronbach Alpha value greater than 0.6. The analysis was conducted using SPSS version 30 software to test the instrument's reliability. The results of the vocabulary mastery reliability test can be seen below.

Figure 1. Reliability results from SPSS

Reliability Statistics	
Cronbach's Alpha	N of Items
.736	21

Based on the reliability test results in Table 4.4, the value is 0.736. The results were declared reliable as they > 0.6 . So it can be concluded that the results of this reliability test prove that all statements in the questionnaire are reliable. At the same moment to measure the reliability of speaking ability, researchers used interrater reliability with the Cohen Kappa (K) agreement coefficient. The results of the interrater reliability test can be seen in the following table.

Table 4 Interrater Reliability Result

Symmetric Measures					
		Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance
Measure of Agreement	Kappa	.823	.065	13.153	<.001
N of Valid Cases		40			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

Based on the interrater reliability in Table 4.5, the reliability value is 0.823, which means the reliability level is strong.

D. Correlation Analysis

The Pearson Product-Moment correlation test was used to analyze the correlation. The researchers obtained the results of the x and y values, namely students' vocabulary mastery and students' speaking ability, which were then calculated to determine the correlation between the two.

The results of the Product-Moment correlation test are shown in Table 4.7 below.

Table 4.7 Pearson Product Moment Correlation Test Results

Correlations			
		Vocabulary Mastery	Speaking Ability
Vocabulary Mastery	Pearson Correlation	1	.939**
	Sig. (2-tailed)		<.001
	N	40	40
Speaking Ability	Pearson Correlation	.939**	1
	Sig. (2-tailed)	<.001	
	N	40	40

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

Based on Table 4.7, the resulting correlation coefficient is 0.939, which means there is a very high positive correlation between vocabulary mastery and speaking ability.

DISCUSSION

Based on the earlier data, this research aims to determine the correlation between students' vocabulary mastery and speaking ability. The results of the written and spoken tests were correlated using Pearson's product-moment analysis. Based on the correlation test results using Pearson Product-Moment analysis, the correlation coefficient value is 0.939. Using the SPSS version 30 application program, the analysis results show a very high correlation between vocabulary mastery and speaking ability in 9th-grade students of one of private schools in Jambi. The correlation coefficient of 0.939 recorded in the table is in the range of 0.81 - 1.00, indicating a very high correlation level. Therefore, it can be concluded that students' vocabulary mastery has a very strong relationship with students' speaking ability. The results of the correlation between vocabulary mastery and speaking ability prove the statement Suryanto 2021 states that "speaking ability can be improved by having a strong vocabulary". It meant that the students with large vocabulary performed comparably with the students with much smaller vocabulary in speaking activities. In line with a previous study by Rahayu 2021 in her research entitled "The correlation between students' vocabulary mastery and "speaking performance at Al Mawaddah

Ponogoro Islamic boarding school" states that there is a significant correlation between vocabulary mastery and speaking performance. On the other hand, when the vocabulary increased, the speaking ability increased simultaneously. Students with little or

underdeveloped vocabulary will not be proficient or fluent in performing a foreign language. It can be assumed that students' vocabulary stock contributes a lot to the acquisition of other aspects of learning language skills. Vocabulary plays an important role in improving the four skills in English, especially for communication purposes. Students with a large vocabulary perform better than those with a smaller vocabulary in speaking activities. In line with Putri (2020), Taslim (2019), Seffar (2015), and Khan (2018), both teachers and students indicated vocabulary deficiency as a major factor in students' inability to speak English.

CONCLUSION

Some conclusions that can be drawn from this research are as follows; first, the vocabulary mastery of grade 9 students of one of private schools in Jambi was good. Second, the speaking ability of grade 9 students of one of private schools in Jambi was good. And finally, there was a very significant correlation between vocabulary mastery and speaking ability. It can be concluded that students' good speaking ability is influenced by their good vocabulary mastery. Based on the description of the correlation test results using Pearson Product Moment analysis, it can be concluded that the correlation coefficient value is 0.939. This result shows that the correlation coefficient is 0.81 - 1.00, with a very high correlation interpretation. In other words, the relationship between vocabulary mastery and the speaking ability of 9th-grade students of one of private schools in Jambi City is very high. A high correlation indicates that there is a strong causal relationship between vocabulary mastery and speaking ability. Good speaking skills are caused by good vocabulary mastery, good vocabulary mastery allows students to choose the right words to convey messages and understand the context of the conversation, so that students can speak fluently and confidently.

SUGGESTION

Based on the results of this research, the researchers would like to give some suggestions.

1. To the English teachers

It is proved in this research that vocabulary and speaking ability have a significant correlation, thus, teachers should not focus only on one language skill or components in teaching, because the achievement in certain skills or component it may influence the other one.

2. To the school policy-makers

To improve students' vocabulary and speaking skills, many parties are involved in it. One of them is the school policy makers. They need to try to create new ways to support achievement in speaking, such as creating an English Club or even asking students to use English in their communication during the school day, or even creating an English Zone (a common place used is the teacher's room) etc.

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