

The Correlation between Students' Vocabulary Achievement and Their Speaking Ability of the Twelfth Grade at MA Al-Islam Kemuja

Junita Estriyo

IAIN Syaikh Abdurrahman Siddik Bangka Belitung

ABSTRACT

Keywords:

Vocabulary Achievement

Speaking Ability

Correlation

The purposes of this study were to find out: (1) students' vocabulary achievement, (2) students' speaking ability, (3) whether there was any significant correlation between students' vocabulary achievement and students' speaking ability at MA Al-Islam Kemuja. This study applied a Pearson Product Moment formula. The population of this study were all students of the twelfth grade at Ma Al-Islam Kemuja, with the total 142 students. The total of samples were 45 students of twelfth grade at Ma Al-Islam Kemuja. The result of students' vocabulary achievement was in good criteria. It could be seen from the result of the mean score of students' vocabulary achievement namely 76.62. Regarding the students' speaking ability, the findings of the study showed that the result of the mean score was 68.58. Then, the findings for the correlation between students' vocabulary achievement and students' speaking ability was 0.583 and the p-value (Sig. (2-tailed)) was 0.000. Meanwhile, the critical value in the table at significant (2-tailed) level 5% was 0.294. It meant that the alternative hypothesis (H_a) was accepted and the null hypothesis (H_0) was rejected. It could be concluded that there was significant correlation between students' vocabulary achievement and students' speaking ability.



This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. ©2019 by author.

Correspondence:

Junita Estriyo,

Email: junitahcell@gmail.com

Introduction

Language is a tool for interaction used by humans. When humans are childhood, they acquire their first language, called as mother tongue. It provides a basis for communication and understanding of the environment. Furthermore, when people receive an education, they are learning national language. Apart from these two types of languages, international languages are also very important to learn. One of the international language most often used to communicate between countries is English.

English is the most important language in the world. In this era of globalization, English has an important role in many things, such as economics, politics, culture, communication, and education.

In response to this, it is very important for Indonesian people to study English. According to Sundari, learning English is different from Indonesian, because a learner will find many obstacles, includes the difficulties in inconsistency of the word class, in pronouncing a new sound system, in encountering new vocabulary items and in arranging foreign words into sentences because Indonesian language structure is different from English (Sundari, 2018). To have a good English, the students must master four basic language skills. They are including speaking, listening, reading, and writing.

Speaking is a needed skill, especially when someone communicates with each other. Good communication skills are very important so that the other people and the speaker can understand information more accurately and quickly. Thus, it is clear that speaking ability is very important. According to Aidil speaking is more difficult than the other four skills in learning English, because when the speaker is speaking, the sentences spoken by the speaker cannot be edited and corrected (Putra, 2017). It means that speaking happens naturally and there is limited time to organize during the conversation. However, when speaking especially in the context of English, a learner cannot be separated from various problems which include mistakes in pronunciation, not confidence, lack of ideas, grammatical errors, and finally lack of vocabulary.

From the five problems above, lack of vocabulary mastery is a problem that mostly affects the ability to speak. This is in line with Tarigan's statement that the quality of speaking ability depends on the quality and quantity of person's vocabulary (Tarigan, 1993). It means that the more vocabulary we master, the better our speaking ability will be. In honing speaking skills, adequate mastery of vocabulary is needed.

According to Marianne, vocabulary is the most important component languages, because it affects the four language skills, there are listening, speaking, reading, and writing (Marianne, 2001). Furthermore, Averil also stated that vocabulary is central to language and basic building blocks of the language, the unit of meaning from which larger structures such as sentences or paragraphs (Coxhead, 2006). Realizing that, mastery of vocabulary is very important for students in learning English, so that they can communicate effectively or convey ideas in oral and written form.

Meanwhile, the researcher also conducted an interview with an English teacher at MA Al-Islam Kemuja. The teacher said that some of twelfth grade students were lacked of confidence when speaking due to their lack of vocabulary

Furthermore, the researcher conducted the preliminary vocabulary achievement test of the eleventh grade of MA Al-Islam Kemuja. Here are the results:

Table 1 <Score of Preliminary Research of Vocabulary Achievement test>

No.	Class	Number of Students'	Total Average of Student's Score
1.	XI IPA	27	62
2.	XI IPS 1	23	53,9
3.	XI IPS 2	18	52,7
4.	XI MAK 1	25	59
5.	XI MAK 2	26	61,9
6.	XI MAK 3	23	58,2

Source: MA Al-Islam Kemuja

Based on the result test above, it could be seen that the total average score in vocabulary achievement of class XI IPA 62.0 XI IPS 1 53.9, XI IPS 2 52.7, XI Keagamaan 1 59, XI Keagamaan 2 61.9, and XI Keagamaan 3 58.2. In conclusion, class IPS 2 had lowest average score in vocabulary achievement. Most of students had difficulties to answer the questions, because they did not understand the meaning of the question, because of their limited vocabulary achievement.

Referring to the previous explanation, limited vocabulary achievement might result in students having difficulties when speaking. Therefore, the researcher was interested to know about correlation between students' vocabulary achievement and their speaking ability. In other words, the title of this research was "The Correlation between Students' Vocabulary Achievement and Their Speaking Ability of the Twelfth Grade of MA Al- Islam Kemuja".

Method

Sugiono stated that the research method is defined as a scientific way to obtain data with a specific purpose and usability. This research is quantitative research. In this research, the researcher used correlational research methods. Furthermore, Creswell stated that correlational research designs are procedures in quantitative research in which investigators or researcher use a relation statistical test to measure the degree of association (or relationship) between two variables sets of scores. A correlation is a statically test to determine the tendency or pattern for two (or more) variables or two sets of data to vary consistently (Creswell, 2012).

The purpose of this study was to find out the correlation between two variables, they were students' vocabulary achievement as independent variable (X) and students' speaking ability as dependent variable (Y). In this study, the researcher analyzed the data taken from the students' test. The researcher scored in vocabulary achievement by using writing test and using oral test for their speaking ability. After getting the score, the researcher analyzed the data to know whether there is correlation of the variables. The possible correlation between students' vocabulary achievement (X) and their speaking ability (Y) was portrayed in the following:



The population in a study is very important, because it is a source of information. If there is an error in determining the population, it will result in inaccurate data being collected so that the result of the research will not be representative and does not have good generalization power. In definition, the population is the whole elements or constituents that will be examined and investigated. According to Creswell, population is a group of individuals who have the same characteristic (Creswell, 2012).

Therefore, the population of this study were all of the students at twelfth grade at MA Al-Islam Kemuja, with the total number of students were 142 students.

In this research, the researcher applied cluster random sampling technique. The reason researcher used this technique because the population was very large, there were three majors consists of 6 classes with the total of population was 142 students, while the researcher wants each class to represent the sample. According to Sugiono, cluster random sampling is a sampling technique used to determine the sample if the object to be researched is very large (Sugiyono, 2019). According to Arikunto if the subjects are less than 100 members, it is better to take all of the population, if the subject more than 100 members can be taken 10-15% or 20%-25% or more (Arikunto, 2006). The researcher has decided to take only 32% of the population, so that the total sample in this study were 45 students. In analyzing the data, the researcher used the procedure as follows:

1. The researcher conducted the written test to measure the students' vocabulary achievement. The type of written test was multiple-choice, with items alternative answer labeled a, b, c, d, and e.
2. The researcher conducted the oral test to measure the students' speaking ability. The type of oral test was interview. It focused on 5 aspects of speaking includes pronunciation, grammar, vocabulary, fluency, and comprehension. The researcher used three topics in this interview, which consisted of "The Dangerous of Using Drugs", "Why Entrepreneur is an Important in the Modern World", and "Why Artificial Intelligence is Needed".
3. The researcher used the formula of Pearson Product-Moment in SPSS 23.0 for analyzing the data about whether or not there was a correlation between students' vocabulary achievement and their speaking ability of the twelfth grade at MA Al-Islam Kemuja.

Validity is a measurement made to determine the level of accuracy of an instrument in research (Ridwan, 2014). Before distributing the test to the samples of this research, the researcher validated the test first. In this research, for getting the validity and reliability of instrument, the researcher gave try-out to other students in different school with the same level. The try-out was tested to 30 students in MA Nurul Falah Air Mesu. Afterward, the data was processed by using the Pearson Product Moment formula of SPSS 23.0 with r_{table} for N30 at the level of significance 5% were 0,361. There were two kinds of validity measured in this research, those were validity of vocabulary achievement and speaking ability. The validity of vocabulary achievement test showed that from 40 items there were 30 items valid and the validity of speaking ability showed that all 3 topics of speaking ability were valid.

Then, reliability occurs when a test measures the something more than once and results in the same outcomes (Neil, 2012). From the result of reliability, it was found that the result of Cronbach Alpha for test of students' vocabulary achievement with significance level 5% was 0,827 and the test of speaking ability were: topic 1 was 0,778, topic 2 was 0,765, and topic 3 was 760. The value of r_{table} for N=30 is 0,361. It can be concluded that test of students' vocabulary achievement and their speaking ability were reliable because the result of Cronbach Alpha was higher than r_{table} .

Results and Discussion

1. The Result of Students' Vocabulary Achievement

In this section, the researcher would like to explain the result of students' vocabulary achievement. The researcher used a test, namely multiple-choice questions to obtain the data of students' vocabulary achievement.

The multiple-choice questions were distributed to two 45 students. There were 30 items of multiple-choice questions. The descriptive statistics of the data was divided into a sample group and the data was analyzed by SPSS 23.0 program.

The instrument was used to obtain the data of vocabulary achievement was a multiple-choice test, with the test consisted of 30 items. Therefore, the possible maximum score for a student if she or he can give the right answer to all the test items 100 and the possible minimum score is 0. The descriptive statistics of Students' vocabulary achievement could be described in the table below:

Table 2 <Descriptive Statistics of Students' Vocabulary Achievement>

	N	Range	Minimum	Maximum	Mean	Std. Deviation	Variance
Students Vocabulary Achievement	45	30	60	90	76.62	9.649	93.095
Valid N (listwise)	45						

Based on the statistical result above, the mean score was 76.62, the highest score gained by the students was 90 and the lowest score was 60 with the standard deviation was 9.649. To know the description of students' achievement in using adjective, the researcher used the central tendency (mean) which described each of students' vocabulary achievement. The result of mean was compared to the following table below.

Table 3 <The Criteria of Students' Vocabulary Achievement Score>

Score Interval	Criteria	Total	Percentage
0-20	Very Low	0	0%
21-41	Low	0	0%
41-60	Enough	3	7%
61-80	Good	28	62%
81-100	Very Good	14	31%
Total		45	100%

2. The Result of Students' Speaking Ability

The instrument used to obtain the data of students' writing ability was an oral test. The tests consisted of three topics. In this research, an oral test was used to collect data. Therefore, possible maximum score that students got right answer 100 and the minimum score 23. The descriptive statistics of Students' speaking ability could be presented in the following table:

Table 4 <Descriptive Statistic of Students' Speaking Ability>

	N	Range	Minimum	Maximum	Mean	Std. Deviation	Variance
Students' Speaking Ability	45	23	61	84	68.58	6.913	47.795
Valid N (listwise)	45						

The descriptive analysis of data in the table above showed that the maximum gained by the students was 84 and the minimum score was 61. Then, the range was 23, the mean was 68.58 and the standard deviation was 6,913.

Furthermore, to know description of the result students' speaking ability, the researcher used central tendency (mean) which described each of students' speaking ability. The scores were divided into five categories: very good, good, enough, low, and very low as shown in the table below:

Table 5 <The Criteria of Students' Speaking Ability Score>

Score Interval	Criteria	Total	Percentage
0-49	Poor	0	0%
50-59	Poor to Average	0	0%
60-79	Average to Good	40	89%
61-80	Good	2	4%
81-100	Very Good	3	7%
Total		45	100%

Based on the table above, it can be seen that there were 0 students (0%) in the very low and low categories, 40 students (89%) average to good category, 2 students' (4%) in good category, and then 3 students (7%) in very good category.

3. The Result of the Correlation between Students' Achievement in Using Adjective and Their Ability in Writing Descriptive Text

a. The Normality Test

Before calculating the correlation between students' achievement in using adjective and their writing ability using Pearson Product Moment formula, the researcher tried to conduct the testing requirement analysis, namely normality test.

- i. A normal distribution of data if Xo^2 is lower than $X1^2$
- ii. An abnormal distribution of data if Xo^2 is higher than $X1^2$

The data of this research was analyzed by used the Kolmogorov- Smirnov test in SPSS 23.0 program. The result of normality test can be seen in the following table below:

Table 6 <One-Sample Kolmogorov-Smirnov Test>

		Unstandardized Residual
N		45
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	5.61503778
	Most Extreme Differences	
	Absolute	.092
	Positive	.092
	Negative	-.079
Test Statistic		.092
Asymp. Sig. (2-tailed)		.200 ^{c,d}
a. Test distribution is Normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction.		
d. This is a lower bound of the true significance		
d. This is a lower bound of the true significance		

Based on the result of normality test above, it showed that the mean of the data was 0.000., the standard deviation was 5.61, the absolute was 0.092, the positive was 0.92, the negative was 0.79, and the test statistic was 0.092. Then, the Asymp.Sig (2-tailed) or significant output was 0.200. The significant output was higher than 0.05 (>0.05), which was 0.200, it can be concluded that the test distribution was normal.

b. The Correlation between Students' Vocabulary Achievement and their Speaking Ability

To obtain the correlation between two variables, the researcher used Pearson Product Moment formula from SPSS 23.0. To know the correlation between two variables, the researcher was analyzed by applying the formula of correlation (r_{xy}) between students' Vocabulary achievement as independent variable (X) and students' speaking ability as dependent variable (Y). The result of calculation was compared with the critical value in a table of significant (2-tailed) level 5% (0.05). If r_{xy} is greater than r_{table} , it means there is correlation between those two variables and if r_{xy} is smaller than r_{table} , it means there is no correlation between both variables. The writer described the calculation result in the table below:

Table 7 <Correlations Analysis between Students' Vocabulary Achievement as Independent Variable (X) and Students' Speaking Ability as Dependent Variable (Y)>

	Vocabulary	Speaking
Vocabulary	Pearson Correlation	1
	Sig. (2-tailed)	.860**
	N	45
Speaking	Pearson Correlation	.583**
	Sig. (2-tailed)	.000
	N	45

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

From the table above it can be seen that the correlation coefficient calculation result was 0.583 and the p-value (Sig. (2-tailed)) was 0.000, while the critical value in the table was at a significant level (2-tailed) 5% was 0.294. Thus, the r_{xy} was higher than the r_{tabel} and the critical value was lower than 0.05. In other words, it can be concluded that there was a significant positive correlation between students' vocabulary achievement and their speaking ability.

After that, the correlation between students' vocabulary achievements and students' speaking ability was also classified into the correlation coefficient r value of interpretation. For more details, it was described in the table below:

Table 8 <Interpretation of Coefficient Correlation r Value>

Interval Coefficient	Correlation Degree
0.00-0.199	Very Low
0.20-0.399	Low
0.40-0.599	Strong Enough
0.60-0.799	Strong
0.80-1.000	Very Strong

From the table above it can be seen that the result of the r_{xy} was 0.294, with the interval 0.40-0.599. It means that the correlation between two variables was in strong enough criteria.

In this part, the researcher defined about the interpretation of the study, consists of three primary parts:

1. The Interpretations of Students' Vocabulary Achievement

Based on the result of analysis on the answer of the multiple-choice questions, the researcher found that the students' vocabulary achievement MA Al-Islam Kemuja mostly was in good criteria. The questions used in testing the students' understanding of 12th grade at MA Al-Islam Kemuja were multiple-choice questions with 30 items. It could be seen from the total of mean scores from the multiple-choice questions that were answered by the students. Some factors probably influenced the result of students' vocabulary achievement. Those are:

- The teacher used the various teaching and learning technique. There were many ways of teaching vocabulary used by the teacher, which include the teacher give a rule that if a student was late for the class, must mention 5 vocabularies and the meanings. The teacher also instructed the students to memorize at least five vocabularies and understand the meaning also translation in Indonesia. Sometimes, the teacher also instructed them to read a text and find out new vocabularies that they have never heard of, after that, write it in their notebook, and translate it by using dictionary. Therefore, in these ways, the students' vocabulary achievement was increased.
- The students, enthusiasm for learning, motivation and encouragement from people around them, as well as good communication. This type of school is a boarding school, where students live in dormitories. This made it easier for them to interact with other students' so they can learn English together like having English conversation. Therefore, this motivates students to study harder to improve their vocabulary achievement. Moreover, at MA Al-Islam Kemuja, quite a few students often take part in English language competitions. If there is an English language competition event held this school always send its students to take part in the competition.
- The school, this school provides facilities in the form of English language courses, so apart from study in the class, students' also do additional lessons by take courses.

2. The Interpretations of Students' Speaking Ability

From the result of analysis on the students' speaking ability, there were 89% of students with average to good ability criteria. It could be concluded most of them in average to good criteria. This happens because when teaching speaking, the teacher instructed students to carry out conversational dialogue, using text. Before students have a conversation, the teacher also explained to the students first how to pronounce it correctly. So that, in these way students become trained and confident in speaking English. Moreover, this type of school is a boarding school, where students live in dormitories. This made it easier for them to interact with other students' so they can learn English together. So that their vocabulary increases, this also affects their speaking ability, because the many vocabularies they achieve make it easier for them to practice conversation in English language. The statement above was supported from the theory in the literature review section, which stated by Hornby that vocabulary is one of the five aspects of speaking (Hornby, 1995). The second supporting statement was from Endang and Indrawati that vocabulary is one of the factors affecting speaking ability (Endang & Indrawati, 2019).

3. The Interpretation of the statistical Analysis of the Correlation between Students' Vocabulary Achievement and their Speaking Ability

In this part of the study, the writer explained the correlations between students' vocabulary achievement and their speaking ability at MA Al-Islam Kemuja based on statistical analysis. It could be seen in the table above showed the information about the result of correlation coefficient computation was 0.583 and the critical value in a table at significant level was 5% was 0.000. Therefore, r_{xy} was higher than r_{table} and the critical value was lower than 0.05. It can be said that there was a significant positive correlation between students' vocabulary achievement and students' speaking ability.

This happens because referring to the theory from Hornby, explained that the aspects of speaking is not only in terms of person's vocabulary, but also pronunciation, grammar, fluency, and comprehension (Hornby, 1995). However, compared to other aspects, vocabulary influence a person's speaking ability quite a lot, because vocabulary is the building block of a language. Cook also stated that speaking in real communication is the result of learning adequate vocabulary rather than just learning about grammar rules (Cook, 2013). Thus, it can be concluded that vocabulary is the one of item that has to be mastered in learning English, because mastery vocabulary affects a person's speaking ability.

From the explanation above, it could be concluded that vocabulary and speaking have a significant correlation, based on the result shown in this study, 58% of students' vocabulary achievements influenced their speaking ability, meanwhile 42% were influenced by other factors. So that, the higher vocabulary achievement students have, also influences their speaking ability.

Conclusions

From analyzing the data during research of the eighth grade of MA Al-Islam Kemuja about the correlation between students' vocabulary achievement and their speaking ability, the researcher concluded that there were three conclusions.

The first, the result of students' vocabulary achievement of the twelfth grade at MA Al-Islam Kemuja was in good criteria. It shown that, from 45 students there were 0 students in very low, low and enough criteria, 3 students or 7% in enough criteria, 28 students or 62% criteria, then 14 students' 31% in very good criteria. Thus, the students' vocabulary achievement in the twelfth grade at MA Al-Islam Kemuja mostly was in good criteria. Some factors probably influenced the result of students' vocabulary achievement. Those are: a) the teacher used the various teaching and learning technique, (b) the students' enthusiasm for learning, motivation and encouragement from people around them, as well as good communication, and (c) the school, this school provides facilities in the form of English language courses, so apart from study in the class, students' also do additional lessons by take courses.

The second result about students' speaking ability at MA Al-Islam Kemuja from the 45 students there were 89% students include average to good category, 7% students include very good category, 4% students include good category. However, there were no students for the criteria of poor to average and poor. Therefore, the most students speaking abilities of twelfth grade at MA Al-Islam Kemuja was average to good criteria.

The last result about the correlation between students' vocabulary achievement (X) and students speaking ability at MA Al-Islam Kemuja had positive correlation with coefficient correlation between two variables r_{xy} was 0.583. It was in the interval 0.40 – 0.599 was categorized strong enough criteria. The alternative hypothesis (H_a) accepted, thus, students' vocabulary achievement correlated with students speaking ability of the twelfth-grade students at MA Al-Islam Kemuja.

References

- Arikunto, S. (2006). *Prosedur Penelitian Suatu Pendekatan Praktik*. Jakarta: Rineka Cipta.
- Cook, V. (2013). *Second Language Learning and Language Teaching* (5th ed.). Oxford: Routledge.
- Coxhead, A. (2006). *Essentials of Teaching Academic Vocabulary*. New York: Houghton Mifflin Company.
- Creswell, J. W. (2012). *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research*. USA: Pearson.

- Endang, & Indrawati. (2019). Faktor-faktor yang Mempengaruhi Speaking Performance Mahasiswa Jurusan Pendidikan Bahasa Inggris. *Jurnal Filsafat, Sains, Teknologi, Dan Seni Budaya*, 25(2).
- Hornby. (1995). *Oxford Advanced Learner Dictionary of Current English*. Oxford: Oxford University Press.
- Marianne, M. C. (2001). *Teaching English a Second Language*. USA: Heinle and Heinle Thomson Learning. .
- Neil, J. S. (2012). Exploring Research. https://Repostory.Dinus.Ac.Id/Docs/Ajar/Neil_J._Salkind_2012_-_Exploring_Research_.Pdf. University of Kansas: Pearson.
- Putra, A. S. (2017). The Correlation Between Motivation and Speaking Ability. *Channing: Journal of English Language Education and Literature*, 2(1).
- Sugiyono. (2019). *Metode Penelitian Pendidikan Pendekatan Kuantitatif, Kualitatif, dan R&D*. Bandung: CV Alfabeta.
- Sundari, W. (2018). The Difficulties of Learning for the Basic English Learners. *Culturalistics: Journal of Cultural, Leterary, and Linguistic Studies*, 2 (1), 2(1).
- Tarigan. (1993). *Metodologi Pengajaran Vocabulary*. Bandung: Angkasa.