The Correlation Between Mastering Vocabulary and The Students' Ability in Speaking

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ABSTRACT

There are four major skills in learning English, they are: listening, reading, speaking and writing. Speaking for many years has occupied a large position of time in teaching and learning activities in the school. Speaking is an activity used by someone to communicate with others. It takes place everywhere and has become part of our daily activities. The aims of this research were: To know the students' ability in mastering vocabulary, to know the students' ability in speaking and to know the significant correlation between mastering vocabulary and the students' ability in speaking. The research was done at MTs Islamiyah Medan. The population of the research was 125 students while the sample was 56 students taken using random sampling. And the instrument of the research test in analyzing data, the writer used the product moment correlation formula. Hath of this research was accepted if rcounter was bigger than stable, Ho of this research was rejected if rcounter was lower than rtable. From the data that was analyzed, it showed that ro is 0.877 and r table with a significant standard of 5% is 0.262. The product moment correlation value was bigger than the "r" table (0.877 > 0.262). There is Ha of the research was accepted, but Ho was rejected. Thus, it can be concluded that there was a positive correlation between mastering vocabulary and the students' ability in speaking.

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1. INTRODUCTION

In mastering English, there are several aspects to be considered: reading, writing, listening and speaking. Speaking is one of the important parts in English; which requires the number aspects to be mastered. It involves the application of grammatical knowledge about mastering vocabulary, fluency, mastering pronunciation and comprehension. These aspects of speaking cannot be separated one another because a certain aspect is influenced by the other aspects. In speaking, for instance, we cannot only master grammatical knowledge or fluency without mastering the other aspects of speaking such as mastering vocabulary.

Vocabulary is a collection of study of words arranged alphabetically for reference and defined or explained the special stock of words employed by an individual in business or author. In dictionary "vocabulary is a total number of words which (with rules for combining them) make up language".

In the explanation above, it shows that vocabulary is the synonym of words. Sometime, words are understood and recognized by people although it is not important to use. So the meaning of vocabulary is all the words in a language. The assembly of words is known and used by people to write, to speak, to read and to listen.

To master vocabulary is not an easy thing, but it requires high work such as attention, comprehension, curiosity. And to master it, it's influenced by many factors: interest, motivation, reading habit, mastering function of words, teacher strategy, etc.

Ideally, the higher the students' ability in mastering vocabulary, the better student has ability in speaking. But based on the primarily study, the researchers found that most of the students still got problems in speaking, it could be seen by the mistakes that they made when they were speaking. There is an indication that the students have low ability in speaking. Vocabulary is one of the important aspects of speaking ability in which focuses on the way of speaking English well. Based on the background above, the researchers are interested in conducting research on the title: The Correlation between Mastering Vocabulary and the Students' Ability in Speaking at MTs Islamiyah Medan.

2. RESEARCH METHODE

This research was conducted at MTs Islamiyah Medan. It is on Jalan Suluh Number 71D, Sidorejo Hilir Village, Medan Tembung District. The design of this research is quantitative research and all the data was taken from the school. The population of the present study was the 2021/2022-first year students of MTs Islamiyah Medan. There are three parallel classes. They are IXA, IXB and IXC which consist of 125 students in three classes. The sample used Torayamane Formula to get the number of sampling. From the formula, it gets 56 students they consist of 19 students are in class IXA and 19 in IXB and 18 students are in class IXC. The sample was taken by using random sampling. The names that are taken will be the sample of the research. This study used two instruments to collect the data. They are interview and test. The researchers interviewed the English teacher to obtain some information related to the teacher's problems in teaching English and students' motivation in learning English. Some questions were given to the students by the researcher and they had to answer directly at that time. In this test, the researchers try to give the test using the vocabulary test and speaking test.
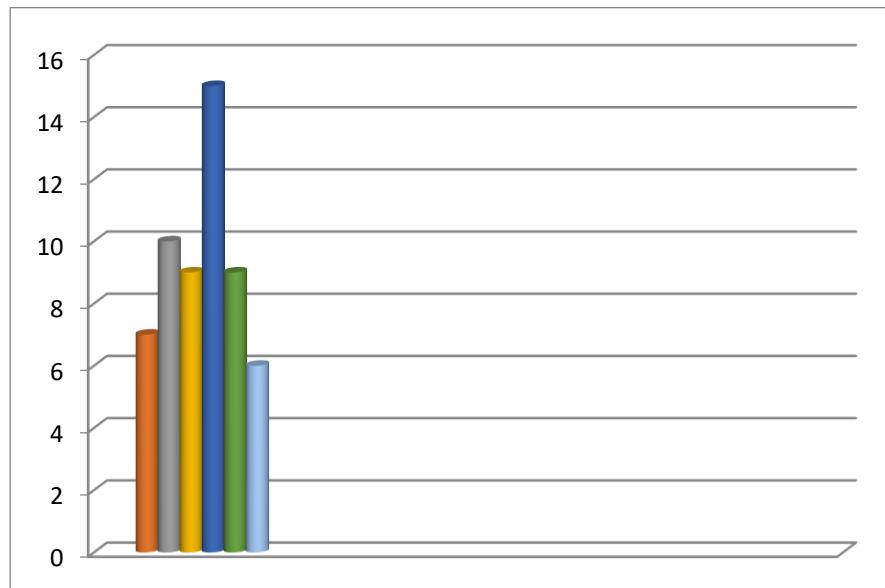
3. RESULT AND ANALYSIS

The Data of Mastering Vocabulary

The data of mastering vocabulary were found by the test which was given to 56 students of MTs Islamiyah Medan who became the research respondents. The complete data about student's mastering vocabulary can be described clearly, through the table of unorganized scores and frequency distribution as follows:

Table. 1
Distribution of Frequency of Mastering Vocabulary (X1)

Class Interval	F_o	% f_o

83 - 90	6	10.71
75 - 82	9	16.07
67 - 74	15	26.79
59 - 66	9	16.07
51 - 58	7	-
43 - 50	10	12.5
35 – 42	-	17.86
Amount	56	100,0

Figures. 1
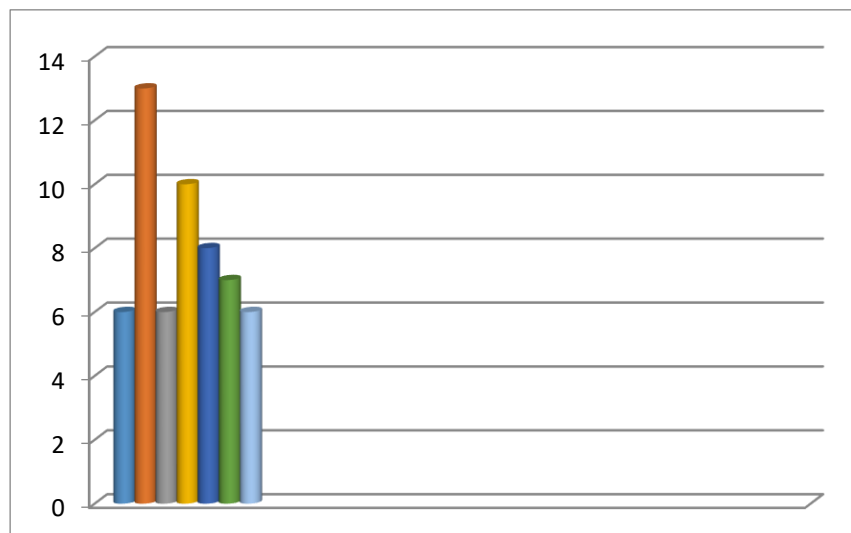VARIABLE HISTOGRAM: Mastering Vocabulary (X1)

Data of the Students' Ability in Speaking

Data of students' abilities in speaking were found from the conversation results which were given to 56 students of MTs Islamiyah Medan who became the research respondents.

Table. 3
Distribution of Frequency of the Student's Ability in Speaking (Y)

Class Interval	F_o	% f_o
80-85	6	10.71
74-79	7	12.5
68-73	8	14.29
62-67	10	17.86
56-61	6	10.71
50-55	13	3.21
45-49	6	10.71
Amount	56	100,0

Figures. 2
VARIABLE HISTOGRAM: The Student's Ability in Speaking (Y)

Normality Test

To make the test of the normality of data in mastering vocabulary on the students of MTs Islamiyah Medan which are represented by 56 students as the research respondents are done by using the Liliefors test.

a. The computation of normality data of mastering vocabulary.

The computation of normality data of mastering vocabulary can be seen in the following worktable

Table. 5
The Data of Mastering Vocabulary

No	Score	F	FK	z_i	$F(z_i)$	$S(z_i)$	$[F(z_i)- S(z_i)]$
1	40	10	10	-1,51	0,0655	0,1786	0,1131
2	50	7	17	-0,89	0,1867	0,3036	0,1169
3	60	9	26	-0,26	0,3974	0,4643	0,0669
4	70	15	41	0,35	0,6368	0,7321	0,0953
5	80	9	50	0,97	0,8340	0,8929	0,0588
6	90	6	56	1,60	1	1	0,0548

From the table above, it can be found that the coefficient of observation Liliefors or Lo=0.1169 while the coefficient of table Liliefors or Lt with N=56 and at real level α=0.05 is found coefficient of Lt=0, 1184. Therefore, the coefficient of Lo (0.1169) < Lt (0.1184) so that it can be concluded that the data distribution of mastering vocabulary is normal.

To find Z score by using this formula:

Z_i =

1) $Z_i = \dfrac{40 - 64,29}{16,05}$ = -1,51

2) $Z_i = \dfrac{50 - 64,29}{16,05}$ = - 0,89

3) $Z_i = \dfrac{60 - 64,29}{16,05}$ = -0,26

4) $Z_i = \dfrac{70 - 64,29}{16,05} = 0,35$

5) $Z_i = \dfrac{80 - 64,29}{16,05} = 0,97$

6) $Z_i = \dfrac{90 - 64,29}{16,05} = 1,60$

Next, to find out S (Z_i) by using this formula:

$$S(z_i) = \dfrac{Fkum}{n}$$

1) $S(z_i) = \dfrac{10}{56} = 0,1786$

2) $S(z_i) = \dfrac{17}{56} = 0,3036$

3) $S(z_i) = \dfrac{26}{56} = 0,1786$

4) $S(z_i) = \dfrac{41}{56} = 0,2321$

5) $S(z_i) = \dfrac{50}{56} = 0,8928$

6) $S(z_i) = \dfrac{56}{56} = 1$

    Sample (n)   = 56
    Mean   = 64,29
    Standard Deviation   = 16,05
    $L_{observation}$ = 0,1169
    L_{tabel} (L) of > 30   = 0,1184

Conclusion: L_o (0,1169) < L_t (0,1184, because L_o is smaller than L_t, so the data distribution of Mastering vocabulary is normal.

b. The computation of normality data of students' ability in speaking.

Table.6

Normality Test of Data of the Student's Ability in Speaking

No	Score	F	FK	z_i	$F(z_i)$	$S(z_i)$	$[F(z_i)- S(z_i)]$
1	45	5	5	-1,65	0,0495	0,0892	0,0892
2	50	6	11	-1,20	0,1151	0,1964	0,0813
3	55	8	19	-0,75	0,2266	0,3392	0,1126
4	60	6	25	-0,30	0,3820	0,4464	0,0644
5	65	10	35	O,14	0,5557	0,6250	0,0693
6	70	8	43	0,59	0,7224	0,7678	0,0454
7	75	7	50	0,04	0,8508	0,8928	0,042
8	80	4	54	1,50	0,9332	0,9642	0,031

9	85	2	56	1,95	0,9744	1	0,0256

From the table above, it can be found that the coefficient of Liliefors observation or L_o=0,1126 whereas the coefficient of table Liliefors or L_t with N=56 and at real level $\alpha_{=0,05}$ is found coefficient of L=0,1184. Therefore, the coefficient of L_o (0,1126) < L_t (0,1184) so that it can be concluded that the data distribution of the student's ability in speaking is normal.

To find Z_{score} by using this formula:

$$Z_i = \frac{X_i - X}{S}$$

1) $Z_i = \dfrac{45 - 63,39}{11,08} = -1,65$

2) $Z_i = \dfrac{50 - 63,39}{11,08} = -1,20$

3) $Z_i = \dfrac{55 - 63,39}{11,08} = -0,75$

4) $Z_i = \dfrac{60 - 63,39}{11,08} = -0,30$

5) $Z_i = \dfrac{65 - 63,39}{11,08} = 0,14$

6) $Z_i = \dfrac{70 - 63,39}{11,08} = 0,59$

7) $Z_i = \dfrac{75 - 63,39}{11,08} = 1,04$

8) $Z_i = \dfrac{80 - 63,39}{11,08} = 1,50$

9) $Z_i = \dfrac{85 - 63,39}{11,08} = 1,95$

Next, to find out S (S_i) by using this formula:

$$S(z_i) = = \frac{Fkum}{n}$$

1) $S(z_i) = \dfrac{5}{56} = 0,0892$

2) $S(z_i) = \dfrac{11}{56} = 0,1964$

3) $S(z_i) = \dfrac{19}{56} = 0,3392$

4) $4.S(z_i) = \dfrac{25}{56} = 0,4464$

5) $S(z_i) = \dfrac{35}{56} = 0,6250$

6) $S(z_i) = \dfrac{43}{56} = 0{,}7678$

7) $S(z_i) = \dfrac{50}{56} = 0{,}8928$

8) $S(z_i) = \dfrac{54}{56} = 0{,}9642$

9) $S(z_i) = \dfrac{56}{56} = 1$

Sample (n)   = 56
Mean   = 63,39
Std. Deviation   = 11,084
$L_{observation}$ =0,1126
L_{table} (L) of n > 30   = 0,1184

Conclusion: L_o (0,1126) < L (0,1184), because L_o is smaller than L, so the data distribution of students ability in speaking is normal.

Homogeneity Test

Data of homogeneity test of mastering vocabulary and the data of the students' ability in speaking are done by using F-test (two variants homogeneity test) with the following formula:

$$F = \dfrac{the\ biggest\ variant}{the\ smallest\ variant}$$

According of the normality data of both tests above, it is known that:
1. Variant of mastering vocabulary of MTs Islamiyah Medan is 10,44
2. Variant of the students' ability in speaking of MTs Islamiyah Medan is 11,25

So, the coefficient of F count is:

$$F = \dfrac{16{,}05}{11{,}08}$$
$$= 1{,}44$$

From the computation above, it is found the coefficient of variant from data of mastering vocabulary and the data of the students' ability in speaking at real level A = 0,05 and the same numerator dk = n-1 =56 – 1 =55 and denominator dk n-1 = 55. So, by using the list of critical value of F distribution is found $F_{0,05\ (55,55)}$ =1,58.

Because of the F count (1,44) is smaller than F table (1,58), so it can be concluded that both of data were homogeneity

Hypothesis Test

The data was collected from the data of students' scores in mastering vocabulary and the data of the students' abilities in speaking. Based on the data, the writer gets $\sum 59x = 3600$, $\sum y = 3550$, $\sum xy = 236800$, $\sum x2 = 245600$, and $\sum y2 = 231800$. To know the correlation between mastering vocabulary and the students' ability in speaking, the writer will do hypothesis examination based on the results of research that has been done before.

Then the data analyzed to count the correlation between X variable and Y variable by using the following formula:

$$r_{xy} = \frac{N\Sigma XY - (\Sigma X)(\Sigma Y)}{\sqrt{\{N\Sigma X^2 - (\Sigma X)^2\}\{N\Sigma Y^2 - (\Sigma Y)^2\}}}$$

$$= \frac{56 x 236800 - (3600 x 3550)}{\sqrt{\{56 x 245600 - (3600)^2\}\{56 x 231800 - (3550)^2\}}}$$

$$= \frac{13260800 - 12780000}{\sqrt{\{13753600 - 12960000\}\{12980800 - 12602500\}}}$$

$$= \frac{480800}{\sqrt{(793600)(378300)}}$$

$$= \frac{480800}{547922,33}$$

$$= 0,877$$

Based on the calculation above, it can be shown that ro is 0.877 and r table with a significant standard of 5% is 0.262. The product moment correlation value is bigger than "r" table (0.877 > 0.262). There is an alternative hypothesis (Ha) of the research is accepted, but Ho is rejected. It means that there is a positive correlation between mastering vocabulary and the students' ability in speaking.

With the accepted alternative hypothesis (Ha) shown that there is a correlation of mastering vocabulary and students' ability in speaking at MTs Islamiyah Medan. The correlation between mastering vocabulary and students' ability in speaking is significant.

According to Anas Sudjono in interpreting the coefficient influence in the following table:

<div align="center">

Table. 8

Interpretation of "R" SCORE

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Coefficient Correlation (r)	Interpretation
0,00-0,20	The correlation of both variable are very low
0,20-0,40	The correlation of both variable are low
0,40-0,70	The correlation of both variable are medium
0,70-0,90	The correlation of both variable are high
0,90-1,00	The correlation of both variable are very high

Based on the statement above, it is known that the researchers found a positive correlation in this study, which is 0.877. Positive correlation means that students can get a high score in one variable if they get a high score in another variable that is correlated.

4. CONCLUSION

Based on the results of the research, the researchers gave some conclusions as follows:
1. The analyzing of collecting data used product moment formula because this study correlated between two variables and the analysis of requirements test used normality and homogeneity test.
2. The students' ability in mastering vocabulary can be seen in the mean of it. That is 64.29 with the Standard Deviation being 16.05.
3. The students' ability in speaking can be seen in the meaning of it. That is 63.39 with the Standard Deviation being 11.08.

4. The product moment correlation value is 0.877. There is a positive correlation between mastering vocabulary and students' ability in speaking

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