

# **The Correlation Between Vocabulary Mastery And Students' Ability In Arranging Random Words Into Good Sentence of The 2014 / 2015 Ninth Year Students of SMP Negeri 2 Stabat.**

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## **Abstract**

The objective of the study is to find out correlation between vocabulary mastery and students' ability in arranging random word into good sentence of the 2014/2015 ninth year students of SMP Negeri 2 Stabat. The population of the study was the 2014/ 2015 the ninth year students of SMP Negeri 2 Stabat, totaling about 199 students. It was taken 20% from 199 students. It is 40 of them randomly as the sample of the research. This research was conducted by applying the correlational design. The reliability of the test is counted by using Pearson Product Moment formula. The instrument was used to collect the data were multiple choicetest consisting of 20 items and essay test consisting of 20 items. Then the writer checked and gave score for both tests. The scores then were displayed in tables. After the data had been collected and analyzed, the findings showed that the value of  $t_{\text{observed}}$  that is 0.50 is higher than the value of the  $t_{\text{table}}$ . It means that the test substantially high. This finding proves the hypothesis that the vocabulary mastery significantly correlates to students' ability in arranging random word into good sentence of the 2014/2015 ninth years students of SMP Negeri 2 Stabat.

**Key words :** *Correlational Research, Vocabulary Mastery and Arranging Random Words into Good Sentence*

## **1. Background of The Study**

Language is surely the most important tool of communication. People used language to express their ideas, thought, and feeling either in spoken or written mood. It means that language is used as primary means of communication in society.

According Algeo a language is a system of conventional vocal signs by means of which human beings communicate. This definition has several important terms, each of which is examined in some detail. Those terms are system, signs, vocal, conventional, human, communicate. Language plays an important role in human's life. The people cannot survive without speaking a language, because it is mean of communication with one another to fulfill their need. We can also say that language cannot separate from human being.

English is one of languages as a foreign language. It has become an important language in the world and it has been widely used in school, government and businesses. Therefore, it is one of the subjects for junior high school students, senior high school and university. English language is taught in many countries in the world. Some countries take English as their foreign language and the other take it as their second language, but especially for some countries take it as their native language.

From this explanation above the writer understands that grammar is the rules in a language for changing the form words and joining them into sentences. Because of these English cannot separate with grammar. In other word, the learner can communicate with others if they study mastering English vocabulary and grammar. This means, the learner not only able to spell or pronounce it, but also she/he should be able to

differentiate its category and meaning when applying it into grammatically right sentence. In addition to this, the learner is able to express it orally as well.

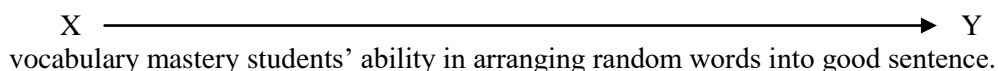
Based on the description above, the writer chooses the title of the research as The Correlation between Vocabulary Mastery and Students' Ability in Arranging Random Words into Good Sentence of the 2014 / 2015 Ninth Year Students of SMP Negeri 2 Stabat.

Teaching of vocabulary is not easy to do because the English teacher should teach vocabulary English first rather than other aspects of language, such as grammar, speaking, reading and writing. If students know more vocabulary, it will be easier for them to learn other aspects of the English language. In this study the writer presents how to teach vocabulary to students so that they can help solve the problem in learning the English language. Students who have enough vocabulary are able to make sentences easily, especially in terms of preparing a random word in to a correct sentence. So that students can communicate or speak in English.

Random word is a form of exercise that is given to the student to determine the ability or mastery of the vocabulary of the students. Students' ability to arrange the words into good sentence that shows the true mastery of the vocabulary of the students. Therefore, mastery vocabulary concerned with setting up random words into a correct sentence. Students who do not have a lot of vocabulary will get into trouble when putting together random words in to a correct sentence. In this study the writer presents also how to learn random words arranged into sentences is true that students are easier to learn and understand this lesson.

## 2. Research Design

This study is a correlational research. The writer applied the correlational research design. In this design, the writer will use the correlational statistical test to describe and measure the degree of relationship between two variables namely vocabulary mastery and students' ability in arranging random words into good sentence of grade IX students at SMP Negeri 2 Stabat in 2014/2015 academic year. The relationship between two variables namely vocabulary mastery and students' ability in arranging random words into good sentence can be drawn as follows:



This figure shows that X variable (vocabulary mastery) has a correlation to Y variable (students' ability in arranging random words into good sentence).

## The Population and Sample

Arikunto said, "populasi adalah seluruh unsur-unsur dari penelitian". The populations of this study are the 2014/2015 Ninth Year Students of SMP Negeri 2 Stabat. There are five classes of the ninth year grade consisting of 199 students which is showed on table 1

**Table 1. The Number of Population**

NO	Class	Students
1	IX.1	40
2	IX.2	38
3	IX.3	42
4	IX.4	39
5	IX.5	40
<b>TOTAL</b>		<b>199</b>

There are five classes of the ninth year grade consisting of 199 students. Because the population of ninth year students is more than 100 students, the writer decided to take 20% from 199 students. It is 40 of them randomly as the sample of the research. The consideration of taking such number of sample is based on what Arikunto states that if the subjects are large or more than 100, the sample can be 10 - 15%, or 20 - 25%, or more depending on the capability of the researcher.

### The Variables of the Study

Theoretically, any two quantitative variables can be correlated as long as we have scores on these variables from the same participants. Correlational research seeks to determine the degree of relationship between two or more variables.

In this study, there are two variables which are correlated, namely vocabulary mastery and students' ability in arranging random words into good sentence of grade ninth students at SMP Negeri 2 Stabat in 2014/2015 academic year. The vocabulary mastery refers to the students' competence in understanding and using English words appropriately. Students' ability in arranging random words into good sentence means the ability of students to make the right sentence based on the structure in arranging random words into good sentence.

### The Instrument of the Study

Any study needs data to support the finding of the study. The data of this study were gained through the instrument of collecting data. The instrument was by giving to the students. There are two tests which were distributed to the students based on the data needed. The data on vocabulary mastery were obtained from multiple choices test consisting of 20 items, while the data on the students' ability in arranging random words into good sentence was achieved from the essay test consisting of 20 sentences.

In scoring the students' answer for both test, the writer used the following formula:

$$\frac{\text{Correct Answer}}{\text{Total number of question}} \times 100$$

### The Techniques of Data Analysis

After the students' answer sheet had been collected, then the writer checked and gave score for both tests. The scores then were displayed in tables. Since the objective of the study is to find out correlation between vocabulary mastery and students' ability in arranging random word into good sentence, therefore the data found were used to seek for the correlation between two variables. In this case, the Pearson Product Moment was applied to calculate the correlation coefficient.

The formula used in finding the correlation coefficient is as follow:

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

In which: N = the number of samples

$\sum X$  = sum of X scores of Vocabulary Mastery

$\sum Y$  = sum of Y scores of Students' Ability in Arranging Random Word into Good Sentence.

$\sum X^2$  = sum of the squared X scores of Vocabulary Mastery

$\sum Y^2$  = sum of the squared Y scores of Students' Ability in Arranging Random Word into Good Sentence.

$\sum XY$  = sum of the products of paired X and Y scores.

### 3. Data Analysis

The data on vocabulary mastery and students' ability in arranging random words into good sentence were obtained through multiple choices test and essay test were given to the students. After the giving the score on both variables, then the writer put the scores in tables.

#### The Score of Vocabulary Mastery

In order to get the data on Vocabulary Mastery, the writer applied Multiple Choice test. Based on the table, it was found that the Mean was 73.75. The highest score of students' ability in arranging random words into good sentence was 80 while the lowest was 65. The Correlation between Vocabulary Mastery and Students' Ability in Arranging Random Words into Good Sentence Score. To see the correlation between two

variables, namely the Vocabulary Mastery and Students' Ability in Arranging Random Word into Good Sentence, the writer needed the following data on table 2.

**Table 2. The Students' Scores on Vocabulary Mastery(X) and Students' Ability in Arranging Random Word into Good Sentence(Y)**

No.	Name	X	Y	X <sup>2</sup>	Y <sup>2</sup>	XY
1	AP	50	70	2500	4900	3500
2	AA	65	80	4225	6400	5200
3	AS	55	70	3025	4900	3850
4	AR	65	75	4225	5625	4875
5	BL	70	75	4900	5625	5250
6	CIS	60	70	3600	4900	4200
7	DM	65	65	4225	4225	4225
8	DA	75	80	5625	6400	6000
9	ED	65	80	4225	6400	5200
10	EK	60	80	3600	6400	4800
11	EN	55	65	3025	4225	3575
12	ET	65	70	4225	4900	4550
13	FA	65	65	4225	4225	4225
14	FR	70	75	4900	5625	5250
15	FA	65	80	4225	6400	5200
16	FR	65	75	4225	5625	4875
17	FK	65	75	4225	5625	4875
18	HF	65	80	4225	6400	5200
19	HM	65	75	4225	5625	4875
20	HI	60	80	3600	6400	4800
21	ID	60	75	3600	5625	4500
22	IP	55	80	3025	6400	4400
23	KH	60	75	3600	5625	4500
24	MA	65	80	4225	6400	5200
25	MA	65	75	4225	5625	4875
26	MF	70	80	4900	6400	5600
27	MH	45	70	2025	4900	3150
28	MK	50	65	2500	4225	3250
28	MKF	40	75	1600	5625	3000
30	PA	50	65	2500	4225	3250
31	RA	65	75	4225	5625	4875
32	RR	65	80	4225	6400	5200
33	RA	70	75	4900	5625	5250
34	RAK	70	80	4900	6400	5600
35	RA	65	80	4225	6400	5200
36	SA	60	65	3600	4225	3900
37	WH	55	70	3025	4900	3850
38	YN	40	65	1600	4225	2600
39	ZF	50	70	2500	4900	3500
40	ZA	60	65	3600	4225	3900
<b>Total</b>		<b>2430</b>	<b>2950</b>	<b>150250</b>	<b>218800</b>	<b>180125</b>

From table 2 above it is found that:

$$N = 40$$

$$\begin{aligned}
\Sigma XY &= 180125 \\
\Sigma X &= 2430 \\
\Sigma Y &= 2950 \\
\Sigma X^2 &= 150250 \\
\Sigma Y^2 &= 218800
\end{aligned}$$

### Research Finding

The data which were found from the test and tabulated in tables then were analyzed. This analysis of data was needed as the objective of the study is to find out correlation between vocabulary mastery and students' ability in arranging random word into good sentence. The writer used the scores of both test to analyze the correlation between them.

The writer applied Pearson's Product Moment formula to find out correlation between vocabulary mastery and students' ability in arranging random word into good sentence. The formula was shown below:

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

By using the formula, correlation coefficient of both variables can be calculated as in the following:

$$\begin{aligned}
r_{xy} &= \frac{(40(180125)) - ((2430)(2950))}{\sqrt{((40 \times 150250) - (2430)^2) ((40 \times 218800) - (2950)^2)}} \\
r_{xy} &= \frac{(7205000) - (7168500)}{\sqrt{((6010000) - (5904900)) ((8752000) - (8702500))}} \\
r_{xy} &= \frac{36500}{\sqrt{(105100)(49500)}} \\
r_{xy} &= \frac{36500}{\sqrt{5202450000}} \\
r_{xy} &= \frac{36500}{72128.011202} \\
r_{xy} &= 0.50
\end{aligned}$$

From the calculation by using Pearson Product moment formula above, it was got that the correlation coefficient between two variables was 0.50. Then, to interpret the strength of the correlation coefficient, the writer used David's interpretation strength of correlation coefficient which is explained on table 3

**Table 3 Interpreting strength of Correlation Coefficients**

Correlation coefficient	Strength
0.01 – 0.09	Very small
0.10 – 0.29	Small, low to moderate
0.30 – 0.49	Moderate, medium
0.50 – 0.69	Substantially high
0.70 – 0.89	High, strong
0.90 – 1.00	Very high to perfect

From the table 4.4, it could be seen that the correlation coefficient of 0.50 was located between 0.50 – 0.69. it means that the degree of the correlation was considered as a substantially high correlation.

### The Hypothesis testing

The hypothesis of the study is that there is significant correlation between vocabulary mastery and students' ability in arranging random word into good sentence of the 2014/2015 ninth years students of SMP

Negeri 2 Stabat. This hypothesis is still a tentative answer to the problem and needs to be proved or tested. To test the hypothesis, correlation coefficient of 0.50 is consulted with the critical value of the correlation with degree of freedom ( $df$ ) =  $40-2 = 38$ . The critical value with this  $df$  is 0.304 for the 0.05 level of significance. The result shows that  $r$  value or the correlation coefficient got from the data analysis is higher than the critical value ( $0.50 > 0.304$ ) and the hypothesis of this study is accepted. Thus, the study proved that the vocabulary mastery significantly correlates to students' ability in arranging random word into good sentence of the 2014/2015 ninth years students of SMP Negeri 2 Stabat.

The data was shown on table 4 below:

**Table 4 Critical values for Pearson correlation**

df = N-2 (N= number of pairs)	Level of significance for one-tailed test			
	.05	.025	.01	.005
	Level of significance for two-tailed test			
	.10	.05	.02	.01
1	.988	.997	.9995	.9999
2	.900	.950	.980	.990
3	.805	.878	.934	.959
4	.729	.811	.882	.917
5	.669	.754	.833	.874
6	.622	.707	.789	.834
7	.582	.666	.750	.798
8	.549	.632	.716	.765
9	.521	.602	.685	.735
10	.497	.576	.658	.708
11	.476	.553	.634	.684
12	.458	.532	.612	.661
13	.441	.514	.592	.641
14	.426	.497	.574	.628
15	.412	.482	.558	.606
16	.400	.468	.542	.590
17	.389	.456	.528	.575
18	.378	.444	.516	.561
19	.369	.433	.503	.549
20	.360	.423	.492	.537
21	.352	.413	.482	.526
22	.344	.404	.472	.515
23	.337	.396	.462	.505
24	.330	.388	.453	.495
25	.323	.381	.445	.487
26	.317	.374	.437	.479
27	.311	.367	.430	.471
28	.306	.361	.423	.463
29	.301	.355	.416	.456
30	.296	.349	.409	.449
35	.275	.325	.381	.418
40	.257	<b>.304</b>	.358	.393
45	.243	.288	.338	.372
50	.231	.273	.322	.354
60	.211	.250	.295	.325
70	.195	.232	.274	.302
80	.183	.217	.256	.284
90	.173	.205	.242	.267

#### 4. The Conclusion

Having the result of data analysis and hypothesis testing, that the correlation coefficient got in this study is 0.50 higher than the critical value of correlation with  $df$  38 ( $0.50 > 0.304$ ), the writer can make a conclusion that the hypothesis of this study is accepted. It means that There is significant correlation between vocabulary mastery and students' ability in arranging random word into good sentence of the 2014/2015 ninth year students of SMP Negeri 2 Stabat.

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