CHAPTER IV

FINDINGS AND DISCUSSION

This chapter presents about finding of the research and discussions with some theories related with the finding of the research.

A. Data Description

The data analyzed in this research are the result of the questionnaire and the test. The questionnire used to determine students' learning motivation. While, the test in this research consist of vocabulary test and reading comprehension test. The test used to measure students' vocabulary mastery and reading comprehension.

1. Learning Motivation

In this study, students' learning motivation is as predictor variable (X_1). The data was obtained from the students' learning motivation score through a questionnaire. The questionnaire was given to measure students' learning motivation. It is closed type questionnaire consist of instrinsic motivation and extrinsic motivation. The questionnaire were assessed by Likert scale rating. This scale has five option. They are strongly agree (*sangat setuju*), agree (*setuju*), undecided (*ragu-ragu*), disagree (*tidak setuju*), and strongly disagree (*sangat tidak setuju*).

The researcher collected the data by questionnaire which in ordinal scale were transformed into interval scale using Method of Successive Interval (MSI) by helping Microsoft Excel. Table 4.1 show the score of students learning motivation which transformed into interval scale by

using Method of Successive Interval (MSI). For more detail see on appendix 14 and 15.

Table 4.1. Score of Students' Learning Motivation Questionnaire

No.	Subject	Score	
		Before Transformed by MSI	**After Transformed by MSI**
1	A.R.R	73	83
2	A.S.F	71	81
3	A.R.S	70	80
4	M.K.F	69	79
5	M.K.N	67	76
6	M.A.B	77	89
7	M.A.S	70	80
8	M.F.E	70	80
9	A.A	76	87
10	A.S	69	78
11	D.A.P	64	72
12	E.A	77	89
13	G.A	72	81
14	I.N	74	85
15	L.Z.N	74	85
16	L.S	71	80
17	M	67	75
18	R.A	69	77
19	S.A	71	80
20	Y.A	73	83
21	A.I	72	82
22	A.A.H	73	83
23	A.G	67	74
24	E.S.R	71	82
25	M.N.F	73	85
26	M.N.A	76	88
27	M.A.S	72	82
28	R.A.K	68	76
29	S.O	69	77
30	K.E	67	75
31	L.Q	68	78
32	N.A.A	65	72
33	N.F.Z.B	69	79
34	N.I.S	70	79

35	R.A	72	82
36	T.K	69	77
37	N.A	72	82
38	K.Q.B	67	75
39	T.H	71	81
40	K.N	67	75

Based on table 4.1, we can see the score of students' learning motivation questionnaire. After the researcher uses Method of Successive Interval to transforms ordinal scale into interval scale, it is found that there is differences between ordinal scale score and interval scale score. The score after transformed by MSI is higher than the score before transformed by MSI.

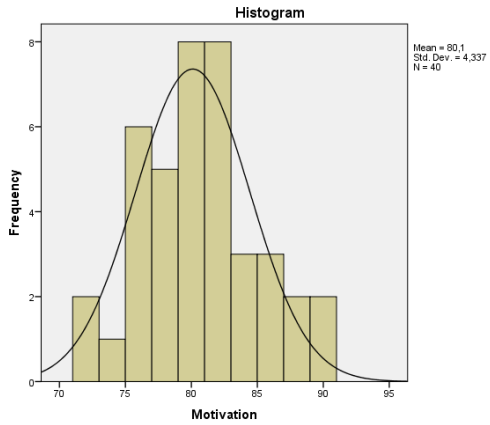
Table 4.2. Descriptive Statistics for Students' Learning Motivation Score

Descriptive Statistics

	N	Range	Minimum	Maximum	Sum	Mean	Std. Deviation
Motivation	40	17	72	89	3204	80,10	4,337
Valid N (listwise)	40						

From the data of students' learning motivation questionnaire, it is found that highest score is 89 and the lowest score is 72. The mean is 80,10 and the standar deviation is 4,337. The histogram can be seen in figure 4.1.

Figure 4.1. Histogram of Students' Learning Motivation Score



2. Vocabulary Mastery

Vocabulary mastery here is as predictor variable (X_2). The researcher conducted test to know the students' vocabulary mastery score. The type of test is multiple choice test. The test consist of seven indicators. They are noun, verb, adjective, adverb, synonym, antonym, and hiponym. The scoring system for the test is if the students answer the item correctly, they got score 1 whereas if the item incorrectly, they got score 0. The result of students' vocabulary mastery test can be seen on appendix 19.

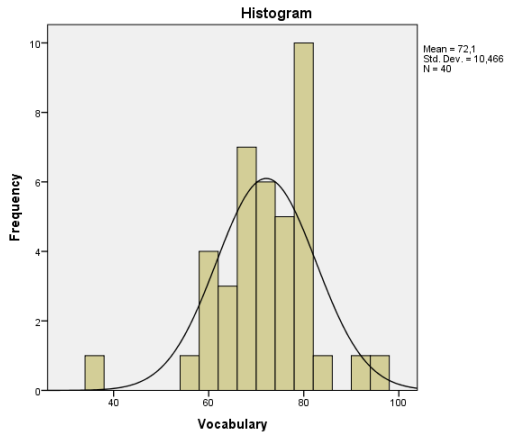
Table 4.3. Descriptive Statistics for Students' Vocabulary Mastery Score

Descriptive Statistics

	N	Range	Minimum	Maximum	Sum	Mean	Std. Deviation
Vocabulary	40	60	36	96	2884	72,10	10,466
Valid N (listwise)	40						

Based on descriptive statistics above, we can see the highest score is 96 and the lowest score is 36. The mean is 72,10, the range is 60, and the standar deviation is 10,466. The histogram can be seen in figure 4.2.

Figure 4.2. The Histogram of Students' Vocabulary Mastery Score



3. Reading Comprehension

Reading comprehension here is as criterion variable (Y). The researcher conducted written test to know the students' reading comprehension score. The type of test is multiple choice test. The test consist of six indicators. They are finding topic, finding main idea, finding detailed information in the text, identifying reference of pronoun, drawing inferences, and guessing word meaning based context. The scoring system for the test is if the students answered the item correctly, they got score 1 whereas if the item was incorrectly, they got score 0. The result of students' reading comprehension test can be seen on appendix 22.

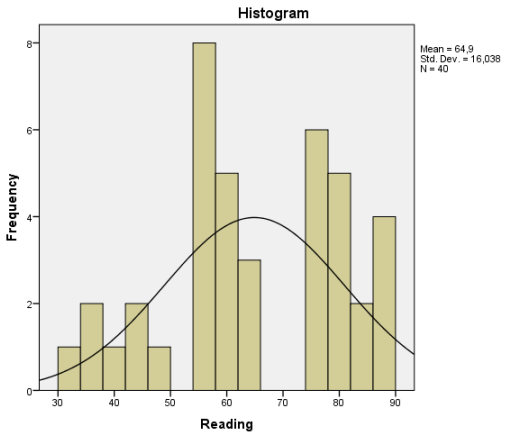
Table 4.4. Descriptive Statistics for Students' Reading Comprehension Score

Descriptive Statistics

	N	Range	Minimum	Maximum	Sum	Mean	Std. Deviation
Reading	40	56	32	88	2596	64,90	16,038
Valid N (listwise)	40						

Based on descriptive statistics above, we can see the higest score is 88 and the lowest score is 32. The mean is 64,90, the range is 56, and the standar deviation is 16,038. The histogram can be seen in figure 4.3.

Figure 4.3. The Histogram of Students' Vocabulary Mastery Score



B. Testing of Pre-Requimen Analysis

The characteristic of the data of the research determines the techniques of analyzing the data. Before analyzing the data, it is necessary to examine the data. The examination covers normality and linearity.

1. Normality Test

Normality test is done to find out whether the population is in normal distribution or not. In this research, Kolmogorov-Smirnov test is used to test normality.

Table 4.5. Normality Test of Learning Motivation, Vocabulary Mastery, and Reading Comprehension

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		40
Normal Parameters[a,b]	Mean	,0000000
	Std. Deviation	11,57894657
Most Extreme Differences	Absolute	,083
	Positive	,072
	Negative	-,083
Test Statistic		,083
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.

Based on the result of normality test using SPSS, it can be concluded that the sample of learning motivation, vocabulary mastery, and reading comprehension is in normal distribution because the significance value (0,200) is greater than 0,05.

2. Linearity Test

   a. Reading Comprehension and Learning Motivation

      Table 4.6. show linearity of reading comprehension and learning motivation.

Table 4.6. Linearity of Reading Comprehension and Learning Motivation.

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Reading * Motivation	Between Groups	(Combined)	4236,933	14	302,638	1,306	,271
		Linearity	3003,603	1	3003,603	12,958	,001
		Deviation from Linearity	1233,330	13	94,872	,409	,952
	Within Groups		5794,667	25	231,787		
	Total		10031,600	39			

Based on the result of linearity test using SPSS, it can be concluded that the data is linear if significance is greater than 0,05. The result of significance computed by ANOVA table is 0,952. The significance is greater than 0,05 so the data is linear.

b. Reading Comprehension and Vocabulary Mastery

Table 4.7 show linearity of reading comprehension and vocabulary mastery.

Table 4.7 Linearity of Reading Comprehension and Vocabulary Mastery

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Reading * Vocabulary	Between Groups	(Combined)	3779,600	10	377,960	1,742	,118
		Linearity	2786,427	1	2786,427	12,846	,001
		Deviation from Linearity	993,173	9	110,353	,509	,856

	Within Groups	6290,400	29	216,910		
	Total	10070,000	39			

Based on the result of linearity test using SPSS, it can be concluded that the data is linear if significance is greater than 0,05. The result of significance computed by ANOVA table is 0,856. The significance is greater than 0,05 so the data is linear.

C. Hypothesis Testing

1. Correlation between learning motivation (X_1) and reading comprehension (Y)

   The researcher uses the null hypothesis (Ho) saying that there is no correlation between learning motivation (X_1) and reading comprehension (Y), against the alternative hypothesis (Ha) saying that there is significant correlation between learning motivation (X_1) and reading comprehension (Y). The researcher follows some assumptions as follow:

   a. If ρ-value (showed in *Sig. (2-tailed)*) > α (level of significance)**,** the null hypothesis (H_o) is accepted, and the alternative hypothesis (Ha) is rejected.

   b. If ρ-value ≤ α, means that the null hypothesis (H_o) is rejected, and the alternative hypothesis (Ha) is accepted.

Table 4.8. Correlation between Learning Motivation (X_1) and Reading Comprehension (Y).

Correlations

		Learning Motivation	Reading Comprehension
Learning Motivation	Pearson Correlation	1	,547**
	Sig. (2-tailed)		,000
	N	40	40
Reading Comprehension	Pearson Correlation	,547**	1
	Sig. (2-tailed)	,000	
	N	40	40

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

The result of the calculation shows that ρ-value is 0,000. To know the strength of correlation, correlation coefficient was compared with **α** (level of significance). The level of significance is 5% (0,05). Then, ρ-value = 0,000 is smaller than 0,05. So, the conclusion is:

1) H_o is rejected
2) Ha is accepted
3) There is significant correlation between learning motivation and reading comprehension of the eighth grade students of SMPN 3 Wonomulyo.

2. Correlation between vocabulary mastery (X_2) and reading comprehension (Y).

The researcher uses the null hypothesis (H_o) saying that there is no correlation between vocabulary mastery (X_2) and reading comprehension (Y), against the alternative hypothesis (Ha) saying that

there is significant correlation between vocabulary mastery (X_2) and reading comprehension (Y). The researcher follows some assumptions as follow:

a. If ρ-value (showed in *Sig. (2-tailed)*) > α (level of significance), the null hypothesis (H_o) is accepted, and the alternative hypothesis (Ha) is rejected.
b. If ρ-value ≤ α, means that the null hypothesis (H_o) is rejected, and the alternative hypothesis (Ha) is accepted.

Table 4.9. Correlation between Vocabulary Mastery (X_1) and Reading Comprehension (Y).

Correlations

		Vocabulary Mastery	Reading Comprehension
Vocabulary Mastery	Pearson Correlation	1	,526**
	Sig. (2-tailed)		,000
	N	40	40
Reading Comprehension	Pearson Correlation	,526**	1
	Sig. (2-tailed)	,000	
	N	40	40

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

The result of the calculation shows that ρ-value is 0,000. To know the strength of correlation, correlation coefficient was compared with **α** (level of significance). It is 5% (0,05). Based on the result, ρ-value ,(0.000) is lower than **α** (0,05). So, the conclusion is:

1) Ho is rejected
2) Ha is accepted

3) There is significant correlation between vocabulary mastery and reading comprehension of the eighth grade students of SMPN 3 Wonomulyo

3. Correlation between learning motivation (X_1) and vocabulary mastery (X_2) toward reading comprehension (Y)

The first hypothesis that will be tested is null hypothesis (H_o) saying that there is no significant correlation between learning motivation (X_1), vocabulary mastery (X_2), and reading comprehension (Y) against the alternative hypothesis (Ha) saying that there is significant correlation between learning motivation (X_1), vocabulary mastery (X_2), and reading comprehension (Y). The technique used is regression.

Table 4.10. Model Summary of Learning Motivation, Vocabulary Mastery, and Reading Comprehension

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	,692[a]	,479	,451	11,88777	,479	16,993	2	37	,000

a. Predictors: (Constant), Vocabulary Mastery, Laerning Motivation

After being calculated by regression helping by SPSS 24.00 for windows, it is found that significant Fchange is 0,000 < 0,05. It can be concluded that the variables had correlation. To know the correlation between all variables by computing R_{table}. The value of r_{table} can be seen

R= 0,692 > r_{table} 0.312, so it can be concluded that the correlation between the variables had strong correlation.

Table 4.11. Correlation between Learning Motivation (X_1) and Vocabulary Mastery (X_2) toward Reading Comprehension (Y)

Correlations

		Laerning Motivation	Vocabulary Mastery	Reading Comprehension
Laerning Motivation	Pearson Correlation	1	,144	,547**
	Sig. (2-tailed)		,374	,000
	N	40	40	40
Vocabulary Mastery	Pearson Correlation	,144	1	,498**
	Sig. (2-tailed)	,374		,001
	N	40	40	40
Reading Comprehension	Pearson Correlation	,547**	,498**	1
	Sig. (2-tailed)	,000	,001	
	N	40	40	40

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

From the table 4.11 above, the significant between learning motivation and reading comprehension is 0,000 and the significant between vocabulary mastery and reading comprehension is 0,001. If ,significant < 0.05, it can be concluded that the correlation between vocabulary mastery, learning motivation and reading comprehension is significant correlation. The result of this hypothesis as follows:

1) Ho is rejected
2) Ha is accepted
3) There is significant correlation between learning motivation, vocabulary mastery, and reading comprehension of the eighth grade students of SMPN 3 Wonomulyo

D. Discussion

In this sub chapter, the researcher would fully review the result of this research dealing with the findings up to the hypothesis testing. On the basis of the statement in chapter I, the objective of this research is to find out the correlation between students' learning motivation and vocabulary mastery toward their reading comprehension.

In conducting this research, the researcher computed and analyzed the data by using SPSS 24.0 to find out the correlation. The computation shows that there is correlation learning motivation and vocabulary mastery toward reading comprehension that results in strong correlation. The result is 0,692. This value is categorized into strong correlation based on Riduwan (2014:61). Thus, from the computation, it can be concluded that there is correlation between learning motivation and vocabulary mastery toward reading comprehension.

In addition, the correlation coefficient between learning motivation and reading comprehension indicates positive correlation. The result is 0,547 with ρ-value (0,000) < $\boldsymbol{\alpha}$ (0,05). So, it can be concluded that learning motivation and reading comprehension has positive correlation. Nunan (2003: 22) says that motivation and learning attitude are important predictors of achievement. In relation with that statement, Slavin (2011:100) said that students who are highly motivated to learn something are more likely to be active than others to consciously plan their learning, to carry out a learning plan, and to retain the information they obtain.

Based on explanation above, learning motivation has contribution on the result of reading comprehension. The low of learning motivation will result in the low of reading comprehension while the high of learning motivation will result in the high of reading comprehension. It means students' learning motivation support in students' reading comprehension. Increasing of learning motivation will followed by improving reading comprehension. The motivated students are easier to understand the content of the text.

Based on hypothesis testing, there is positive correlation between vocabulary mastery and reading comprehension. The result is 0,526 with ρ-value (0,000) < $\boldsymbol{\alpha}$ (0,05). It means that the hypothesis is accepted. It also means that vocabulary mastery and reading comprehension has positive correlation. The level of correlation had strong correlation. A positive correlation indicates that vocabulary mastery give contribution to reading comprehension, it means that every improvement of vocabulary mastery will be followed by the improvement of reading comprehension.

David Wilkins in Thornbury (2002: 13) states that without vocabulary nothing can be conveyed. Students need vocabulary mastery to understand the text that they read. If the students have low skill of vocabulary mastery, they will get difficulty in understanding the text and do not get the important information of the text. On the contrary, if the students have high skill or vocabulary mastery will, they will easily to

undertand the text. Therefore, increasing vocabulary mastery will be followed by improving students' reading comprehension.

Furthermore, there is positive correlation between learning motivation and vocabulary mastery toward reading comprehension. It is supported by the result of the hypothesis testing of this study, it is found that $r_{\chi\gamma}$ = 0,692 with ρ-value (0,000) is lower than $\boldsymbol{\alpha}$ (0,05). It means that the correlation coefficient between learning motivation and vocabulary mastery toward reading comprehension indicates positive correlation.

Regarding the previous studies, this research was similar to Sari (IAIN Surakarta: 2017) entitled "The Correlation Study between Students' Motivation and Reading Comprehension". The objectives of her research are to determine the correlation between students' motivation and reading comprehension. The result shows that there is significant correlation between students' motivation and reading comprehension with correlation coefficient (0,879) is higher than r-table (0,334). The differences between her and this research are the sample and data analysis. In the research of Sari, she took university-level students, while the sample of this reaserch is junior high school-level. For the data analysis, she is not transforms the ordinal scale into interval scale beside she used Pearson Product Moment as the formula.

The other study was written by Rahman and Deviyanti (2012) entitled "The Correlation between Students' Motivation and their English Speaking Ability". Their research is aimed at investigating the correlation

between students' motivation and English speaking ability. Their research resulted in that there is a correlation between students' motivation and Englsh Speaking Ability with correlation coefficient (0,764) is higher than the value of r-table (0,176). The differences between them and this research are the sample and data analysis. In the research of Rahman and Deviyanti, they took senior high school level, while this reaserch is junior high school level. For the data analysis, they are not transforms the ordinal scale into interval scale beside they used Pearson Product Moment as the formula

According to Listiyanti (2015), motivation makes student focus to do something continuously. Motivation also affects learning strategies and cognitive process as an individual employ. It means that students' motivation has contribution to students' reading ability. Therefore, it is important to increase the students' motivation to increase the students' reading comprehension.

It was supported by Elliot (2000) states that motivation is an internal state that makes us do something, push us in particular direction, and keep us involved in particular activities. Motivation becomes a factor that creates a desire for students to learn. If the students choose to comprehend the text deeply, then the students love to reading more text. Then, it means that the increase of students' motivation will be followed by the increase of students' reading ability. Motivation can make the students do something and push the students to get the knowledge and

solve the problem. So students' motivation can be a factor that decides the success or failure of reading comprehension. In conclusion, the increase of students' motivation will be followed by the increase of students' reading comprehension.