

IV. RESULT AND DISCUSSION

This chapter discusses the activities after collecting the data. It deals with the results of the data analysis and discussions. The results of the data analysis are divided into four sub sections, that is, the results of the try out, results of grammar test, results of vocabulary test, results of reading comprehension test, normality test, and the correlation between students' grammar and vocabulary mastery and their reading ability.

4.1. Result of The Research

4.1.1. Result of the Correlation between Students' Grammar Mastery and Reading Ability

In order to know the coefficient correlation between students' grammar mastery and reading, the writer organized the data by using *Pearson Product Moment Correlation* (SPSS).

Table 7. Correlation Between Students' Grammar Mastery and Reading Ability

		X1	Y
X1	Pearson Correlation	1	.654(**)
	Sig. (2-tailed)		.000
	N	40	40
Y	Pearson Correlation	.654(**)	1
	Sig. (2-tailed)	.000	
	N	40	40

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

From the calculation of the SPSS, the writer found the correlation between students' grammar mastery and reading ability is .654. The coefficient correlation is higher than the critical value of r_{table} (.654 > .393) at significance level 0.01. The result of this research shows that students' grammar mastery correlates positively with reading ability.

Grammar is one of language components. It refers to pattern of form and arrangements by which the word put together and it must be learnt if the language will be used. And reading is means of language acquisition, of communications and sharing information and ideas. Reading is complex cognitive process of decoding symbols for the intentions of deriving meanings (reading comprehension) and construction meaning.

4.1.2 Result of the Correlation Between Students' Vocabulary Mastery and Reading

To see how far the correlation between students' vocabulary mastery and reading ability, the writer analyzed the data by using *Pearson Product Moment Correlation* (SPSS).

Table 8. Correlation Between Students' Grammar Mastery and Reading Ability

		X2	Y
X2	Pearson Correlation	1	.730(**)
	Sig. (2-tailed)		.000
	N	40	40
Y	Pearson Correlation	.737(**)	1
	Sig. (2-tailed)	.000	
	N	40	40

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

From the table above, N shows the total of the students who took part in the test where the coefficient of correlation between students' vocabulary mastery and reading ability shows .737, it means that the correlation is significant because the coefficient correlation is higher than the value of *r* table ($0.728 > 0.393$) at the significance level 0.01.

4.1.3 The Correlation between Students Grammar Mastery and Vocabulary Mastery and Their Reading Ability

In order to determine whether there is significant correlation between the students' grammar and reading ability, and whether there is correlation between vocabulary mastery and reading ability, the variables were calculated by using Pearson Product Moment Coefficient Correlation. Then, to determine whether there is any significant correlation between students' grammar and vocabulary mastery and their reading ability or not the writer used multiple correlations in order to investigate the third hypotheses.

Here is the formula for *Pearson Product Moment Correlation Coefficient*.

$$r_{xy} = \frac{N \sum xy - (\sum x)(\sum y)}{\sqrt{n(\sum x^2) - (\sum x)^2 n(\sum y^2) - (\sum x)^2}}$$

The correlation of the variables that is, students' grammar (X_1), vocabulary mastery (X_2) and reading ability (Y) can be seen as follow:

Table 9. Correlation Between Students' Grammar Mastery and Vocabulary Mastery and Their Reading Ability

No	rx_1y	rx_2y	ry_{12}
1	0.62	0.728	0.803

From the result of data calculation above, it can be seen that the correlation coefficient ($rx_{1,y}$) of the two variables was 0.62 at the significant level of 0.01. It means that there was high correlation between students' grammar and reading ability. Meanwhile the result of correlation coefficient ($rx_{2,y}$) of the two variables was 0.728

at the significance level of 0.01. It means that there was high correlation between students' vocabulary mastery and reading ability. The result of the multiple correlation between students' grammar and vocabulary mastery and their reading ability showed $r_{y12} = 0.803$ which was categorized as very high correlation. They were higher than critical value taken from the table ($r_{table} = 0.393$) where degree of freedom (df) is 40 at the significance level 0.01. It means that there is positive significant correlation between students' grammar and vocabulary mastery and their reading ability.

From the result of this research shows that students' grammar mastery and vocabulary mastery correlate positively to reading ability. It indicates that students' grammar mastery and vocabulary mastery are interrelated and seemed unseparately. In other words, the writer verifies that there is significant correlation between students' grammar mastery and vocabulary mastery and their reading ability at the first year students of SMA I Bandar Lampung.

4.1.4. Normality Test

Before calculating the correlation of the three variables, students' grammar, vocabulary mastery, and reading comprehension, it first must be revealed whether the data was normally distributed or not. Discovered the normality therefore used the SPSS with *Kolmogorov-Smirnov* computation result. Here is the result of the computation of the normality using SPSS.

Table 10. Normality test X1**One-Sample Kolmogorov-Smirnov Test**

		X1
N		40
Normal Parameters(a,b)	Mean	8.2632
	Std. Deviation	.94649
Most Extreme Differences	Absolute	.187
	Positive	.076
	Negative	-.187
Kolmogorov-Smirnov Z		1.155
Asymp. Sig. (2-tailed)		.138

a Test distribution is Normal.

b Calculated from data.

From the table 4.10, it can be seen that the data are normally distributed through *Kolmogorov-Smirnov*, with the level of significance 0.01. According to *Kolmogorov-Smirnov*, the test significance value of the data for students' grammar mastery was 0.138. It means $p > 0.01$ and data X1 have normal distribution.

Table 11. Normality Test X2**One-Sample Kolmogorov-Smirnov Test**

		X2
N		40
Normal Parameters(a,b)	Mean	7.1930
	Std. Deviation	1.20965
Most Extreme Differences	Absolute	.142
	Positive	.103
	Negative	-.142
Kolmogorov-Smirnov Z		.878
Asymp. Sig. (2-tailed)		.424

a Test distribution is Normal.

b Calculated from data.

In the normality test for X2, vocabulary mastery, it could be seen from data on table 4.8 above that the result of vocabulary mastery was 0.424. It means that the variable X2 was bigger than 0.01 and could be stated as normally distributed.

Table 12. Normality Y

One-Sample Kolmogorov-Smirnov Test

		Y
N		40
Normal Parameters(a,b)	Mean	7.5526
	Std. Deviation	1.06339
Most Extreme Differences	Absolute	.181
	Positive	.121
	Negative	-.181
Kolmogorov-Smirnov Z		1.119
Asymp. Sig. (2-tailed)		.164

a Test distribution is Normal.

b Calculated from data.

According to *Kolmogorov-Smirnov*, the test significance value of the data for students' reading comprehension was 0.164. It means that $p > 0.01$ and data Y has normal distribution. Since the data from students' grammar, vocabulary mastery, and their reading ability are normally distributed, this research used *Pearson Product Moment Correlation Coefficient* which found out the correlation between three variables. The first variable was students' grammar, second variable was vocabulary mastery, and the third variable was reading comprehension.

4.1.5. Hypotheses Testing

In this research, result of hypothesis was based on correlation computation. The value of r_{y12} was 0.803 with significance level 0.01. the correlation coefficient (r_{value}) is higher than r_{table} ($0.803 > 0.393$). because of it, the H_0 in this research can be rejected. It means that the hypothesis was H_1 , there were significant correlation between students' grammar and vocabulary mastery and their reading ability of the first grade of SMA Negeri 1 Bandar Lampung.

4.2 Discussion of the Results

This section deals with the discussion of the research's result based on the data that has been presented above.

4.2.1 Discussion of the Correlation between Students' Grammar and Reading

It is obvious that grammar mastery plays an important role for the students to comprehend the text (reading). Based on the data of this research, it was found that there was positive correlation between students' grammar and reading. The coefficient of the correlation between students' grammar mastery and reading is 0.62 at the significance level 0.01. It means that the students' grammar mastery positively correlated with students' reading ability.

From the result, it was revealed that the students who had good mastery in grammar could understand reading well, because the rules of grammar help to determine the

mechanics of reading, which what makes the connection between grammar and reading is important.

According to Brown (2001: 362) states that grammar is the system of rules governing the conventional arrangement and relationship of words in a sentence. Considering that a correct grammar is important because grammatical mistakes can lead to misunderstanding what one is saying or writing. In addition, Jeffery (1990 : 120) states that grammar is needed in order to gain control of written language for thought has to be organized in order to make meaning clear to readers.

There are also researches done by Donald F. Moores & Catherine Sweet (1990) For both groups there were high correlations between reading and the two measures of English grammar/structure. Based on Richard (1992) reading comprehension refers to the understanding that results from perceiving a written text. Thus, when language is spoken or written, it is well-patterned and follows certain rules otherwise the messages conveyed will not be understood. Further, Hornby (1989:542) says that grammar is the rules for forming words and combining them into sentences.

As a result grammar is the rules that show how words are combined, arranged or changed to show certain kinds of meaning. Grammar is important to students to understand the meaning of the text that they read and to make meaning clear to readers without grammar, words when combined with other words may not have meaning.

4.2.2 Discussion of the Correlation between Students' Vocabulary and Reading

The coefficient correlation between students' vocabulary and reading ability is 0.728 at the significance level 0.01, it means that students' vocabulary mastery positively correlated with their reading ability. Nation (1990 : 22) contends that the main goal of vocabulary is to increase the students' vocabulary mastery in order to master the four language skills : listening speaking, reading, writing. As mentioned previously it can be obviously seen that students' vocabulary mastery takes a big part in acquiring reading ability.

Gleason and Ratner (1998 : 1425) argues that development of vocabulary knowledge represents a continuum in which individual words move from unfamiliar to acquainted, and to established categories. This vocabulary development both pushes and is pushed forward by reading acquisition. The interconnectedness of reading and vocabulary development is shown by the influence of each to the other where advances in each influences the other. The reciprocal causation relationship exists in older impaired readers where these readers developed problems in vocabulary knowledge as the result of delays in reading, which then became further impeded because of increasing vocabulary deficits.

PStanovich (1986, 2000) has also reported on studies that support this relationship, and in his own research, he has reported strong correlations between vocabulary and reading. In fact, Stanovich (1986, 2000) makes a strong argument for a reciprocal causal relation between reading and vocabulary. That is, vocabulary growth leads to improve reading comprehension, and amount of reading leads to vocabulary growth.

4.2.3. The Correlation between Students' Grammar and Vocabulary Mastery and their Reading Ability

As writer mentioned before, each student had different rate of grammar mastery and vocabulary mastery to reading ability, whether it was high, moderate or even low and those results of students' grammar mastery and vocabulary were correlated with their reading ability. Based on the data of the research, it was found that there was positive correlation between students' grammar mastery and vocabulary and their reading ability. The coefficient correlation between students' grammar mastery and vocabulary mastery and their reading ability is .803.

As a result, grammar, vocabulary, and reading have correlation one to the other. For understanding reading comprehension students must know the vocabulary first because it is a basis of language. It is impossible for the students to read a foreign language without having enough knowledge of vocabulary. Besides that, grammar has important role in learning English, so it also has a big influence to reading comprehension. Students who want to get a text message, have to know about how the text is form or they will not able to have complete understanding about the text was mean. So, when their score of grammar and vocabulary is high, their score in reading comprehension is also high.

As mentioned in the frame of theories done by Widiono (2007) found that students had difficulty in comprehending reading text. Some aspects that caused the students had difficulty in comprehending the text which he found in his research were: students' lack of vocabulary and grammar, students' interest in the reading text,

teachers' ability in guiding and managing their class and inappropriate reading strategy. This statement is also supported by Finnochiaro (1983) who defines that reading comprehension is the ability which depends on the accuracy and speed of graphic perception, that are perception of writer symbol, control of language relationship and structure, knowledge of vocabulary items and lexical combination, awareness of redundancy, the ability to use contextual clues and recognition control illusion.

Based on the statement above it is revealed vocabulary and grammar which are the important in learning language especially in reading. Vocabulary is the first stage to learn and to know the text itself. Because, if the student have a little vocabulary they found difficult to understanding about grammar in text reading. Especially for regular and irregular verb in vocabulary to express their text in reading. So, the student must master grammar formations if they want to improve their skill in reading.