

INVESTIGATING THE CORRELATION BETWEEN STUDENTS' GRAMMAR MASTERY AND READING COMPREHENSION ACHIEVEMENT

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Abstract: The objectives of the study were to find out whether or not there were a significant correlation between students' grammar mastery and reading comprehension achievement and a significant contribution of the students' grammar mastery to their reading comprehension achievement. There were 120 eighth graders of one junior high school got involved as participants of this study. The data were collected by using grammar and reading comprehension tests and analyzed statistically by applying Pearson product moment correlation analysis and linear regression. The findings showed that there was a strong positive correlation between the students' grammar mastery and their reading comprehension in which r -obtained (0.739) was higher than r -table (0.1793). The regression analysis also showed that there was significant contribution of the students' grammar mastery (54.7%) to their reading comprehension achievement.

Keywords: *grammar mastery, reading comprehension, eighth graders*

Grammar is one of the essential language elements taught to support the mastery of four skills namely listening, reading, speaking and writing. It means that in order to have a good English achievement, the students must have a good grammar mastery. Automatically, the students have to master grammar in order to have a good achievement in reading as well since it is one of the skills in English.

Furthermore, Thornbury (1999) states, "Grammar is the fundamental discourse machine generator in every language in general" (p. 15). So, grammar is a part of the general study of language called linguistic. In addition, Savignon (1997) says, "Person demonstrates grammatical competence not by stating the rules, but by using rules" (p. 9). So grammar mastery can be defined as the understanding of sentence structure, sentence element, and the knowledge

of application of words in a sentence to make the correct and meaningful sentences.

Related to reading, Nunan (2003) states, "Reading is a process of understanding, which readers try to unify the background knowledge of their own by combining the information that they are looking for from a reading text to develop meaning" (p. 68). So, it is easy for students to obtain overall meaning of a text. Reading is very useful for students because the more they read, the better they get at it. Reading is a great source of learning language (Pollard, 2008, p. 45). As one of the important language skills, reading should be taught intensively by the English teacher. Furthermore, reading is a form of understanding a written text and translating the symbols or writing system into students own words (Cline, Johnstone, & King, 2006). The understanding can be seen through the purpose of reading, the context, the nature of the text and the reader strategies and knowledge that students have. The ideas was given to read this context relate to the symbol and the purpose of reading text.

The lack of Reading mastery of Indonesian students can be seen from the result of Programme for International Students Assessment (PISA) (OECD, 2015). The OECD mean score for reading is 493, while the mean score of Indonesia is only 397. Indonesia ranked in eight positions from the bottom or ranked 62 positions out of which 70 countries participate. This means Indonesia country shares the low achievers above the OECD average. Furthermore, as stated by Progress in International Reading Literacy study (PIRLS, 2011) it is indicated that the average scale score in Indonesia only

428, while the conterpoint of the PIRLS scale is 500. It means that Indonesia students have a low reading average (PIRLS, 2011). Meanwhile, based on data survey of English Proficiency Index, rank of Indonesia is on the 32nd place out of 72 countries (EPI, 2016). Yet in 2017, Indonesia rank of English Proficiency Index are 39th of 80 countries (EPI, 2017). It means that English Proficiency Index of Indonesia decrease and become worse. The previous facts indicate that Indonesia has moderate English proficiency. Therefore, mastering reading as one of the important aspect language is needed by the students to overcome their problem in learning English.

Furthermore, in Indonesia students at second year of Diniyyah Puteri Padang Ujung, had difficulty in understanding various text book (Fitrawati, 2013). It was caused by several factors such as lack of vocabulary, lack of ability of recognition of grammar and teacher method of teaching reading. Seeing the fact about students' achievement above, those problems should be improved considering the importance of reading itself for students.

Based on Curriculum 2013, junior high school students in Indonesia should master 5 kinds of text, narrative, descriptive, recount, report and procedure. The second year students of junior high school must learn descriptive text. According to Zumarkhin (2005) descriptive text is used to describe something, such as people, things, and animals (p. 5). Descriptive text is very important for us when the students want to describe about something. The purpose of the descriptive text is to describe objects or people where the authors are interested to do it (Johnstone &

Morrow, 1981). Furthermore, according to Kane (2000), descriptive text is the description and identification of the structure text such as person and thing (p. 352).

One of the factors influencing reading is grammar. According to Multer, Hulme and Snowling (2004) in their research, there are several important rules that affect reading comprehension such as phoneme and letter knowledge to evolve the skills for introduction the early word. They also find that vocabulary knowledge and grammatical skills play significantly in getting the desired result in reading comprehension. Darmono (2013, p. 26) states that grammar has important rules for the students in learning English, so it also has a big influence in reading comprehension ability. People who want to get a text message have to know about how the text is formed or they will not able to have a complete understanding about what the writer means. If people do not master grammar well, they will have difficulty mastering reading comprehension too.

However, in fact the students still found many problems with grammar and reading comprehension. The writer of this study has done a mini research to find out the problems faced by the teacher and students in terms of reading and grammar at SMP Negeri 13 Palembang. Through personal interview, it was found that according to the teacher, most students had difficulties in mastering the vocabulary and grammar in reading subject. Specifically for descriptive text, the students were confused by the concept of grammar: (1) the use of the verb; (2) the formula of positive, negative, and interrogative sentences; (3) the use of to be (am, is, are); (4)

the use of subject (singular/plural, e.g. person><people, student><students, etc.).

In addition, the interviews were also done to some randomly selected participants. There were only twenty students chosen from 8.1 to 8.10. The result of the interview shows that the problem that face by the students are: (1) lacked of vocabulary; (2) got difficulty to understand the idea of the text; and (3) constructed a good sentences.

Based on the explanation above, the researcher conducted a research entitled "The Correlation between Grammar Mastery and Reading Comprehension Achievement of The Eighth Graders of SMP Negeri 13 Palembang". In this study, the writer found out whether or not there was any significant correlation between grammar mastery and reading comprehension of descriptive text of the eighth graders students of SMP Negeri 13 Palembang.

Based on the background above, the problems of the study are formed in the following questions: (1). was there any significant correlation between grammar mastery and reading comprehension achievement of the eighth graders of SMP Negeri 13 Palembang ? (2). If there was how much did grammar mastery contribute to the reading comprehension achievement of the eighth graders of SMP Negeri 13 Palembang.

METHODOLOGY

This study was a correlational study. According to Anderson and Arsenault (2005), "correlational research is one way of describing in quantitative terms the degree to which variables are related". In this study, the writer wanted to find out whether or not there was any significant

correlation between Grammar Mastery and Reading Comprehension Achievement of the Eighth Graders of SMP Negeri 13 Palembang.

The writer selected the eighth graders of SMP Negeri 13 Palembang in academic year 2017-2018 as the population. The total population of this study was 120. The total sampling technique was used. There were three criteria in selecting the sample. First, the students were taught by the same English teacher. Second, the writer chose three classes that are similar or closely similar in terms of the total number of the students. Third, the mean scores of students' English test were almost the same. The English teacher taught three classes. They were VIII.1 to VIII.3. Since the population was only 120 students, the writer took all the population as a sample. Therefore, the total number of the sample was 120 students.

The research instruments used in this research were a ready-made. Reading comprehension test of descriptive text based on Curriculum 2013 and a grammar mastery test. Content validity was carried out by asking some validators to see the test

whether or not the test was appropriate. The reliability coefficient was reliable. Because the value cronbach alpha of grammar and reading test was more than 0.77. The result of students' reading level test measured by IRI Jenning reading test showed that the students were at level 3.

In analyzing the data, pearson product moment correlation analysis was conducted to find out whether or not there was a significant correlation between grammar mastery and reading comprehension achievement. Linear regression was also conducted to investigate whether or not there was a significant contribution of the students' grammar mastery to their reading comprehension achievement.

FINDINGS

Result of Students Grammar Mastery Test

The scores of grammar mastery test divided into 5 categories: very good, good, enough, poor and very poor. The result of the students' grammar mastery score is presented in Table 1.

Table 1
Distribution of Score for Students' Grammar Mastery Test

Score interval	Level of Achievement	Grammar		Mean	Std. Dev
		N	%		
80-100	Very good	41	34.16	83.90	4.33
66-79	Good	58	48.33	72.68	3.43
56-65	Enough	17	14.16	60.17	3.24
46-55	Poor	4	3.33	52.25	2.06
0-45	Very poor	-	-		
Mean				74.08	

In terms of grammar mastery test, Table 1 shows that the students who had scored lower than 55 were considered very poor capability, the

students who scored from 46-55 were considered as poor capability, the students who scored from 56-65 were considered as enough capability, the

students who had scored 66-79 were considered as good category and the students who had score from 80-100 were considered as a very good category.

The result of grammar mastery test showed that there was no students who included in the very poor capability (0%), 5 (33%) students were categorized in Poor category, 17 students were in Enough capability (14.16%), 58 students (48.33 %) were Good category and 41 students (34.16%) were Very Good category.

The lowest score was 50, while the highest score in grammar was 96 with the mean score 74.08. It can be concluded that the participants were categorized in Good category.

Result of Students Reading Comprehension Test

The score of grammar mastery test divided into 4 categories: very good, good, enough, poor. The result of the students' reading comprehension score is displayed in Table 2.

Table 2
Distribution of Students' Reading Comprehension Test

Score Interval	Level of Achievement	Reading		Mean	SD
		N	%		
86-100	Very good	44	37	90.76	3.70
76-85	Good	39	32	80.57	3.03
56-75	Enough	37	31	68.75	5.81
<55	Poor	-	-		
Mean				80.67	

As shown in Table 2, the students whose scores were lower than 56 were considered as having poor capability, the students who scored from 56-75 were considered as having enough capability, the students who had scored 76-85 were considered as having good category and the students who had score from 86-100 were considered as having a very good category. The result of reading comprehension test showed that there was no student who included in the poor capability (0%), 37 students (31%) were included in the enough capability, 39 students (32 %) were included in the good category and 44 students (37 %) were included in the very good category. The lowest score was 60, while the highest score in reading was 97 with the mean score 80.67. It can be concluded that the

participants were categorized as good readers.

Statistical Analyses

The data of normality and homogeneity were calculated before the writer analyzed the data to find out the result of correlation and regression analyses.

Normality Test

Kolmogorov-Smirnov was applied to analyze the normality of the data. Khan (2006) state that Kolmogorov – Smirnov test was used to the sample size is larger than 50. Based on the results of Kolmogorov test, the value of students' grammar mastery test was 0.051 and the value of students reading comprehension test was 0.066. It can be concluded that all the data were normal since all the p-values of the normality tests were higher than 0,05.

Homogeneity Test

Levene test was used to assess the homogeneity of students' grammar mastery and reading comprehension test. Based on the finding, the sig value from the test was 0.063. The sig value was higher than 0.05 which indicated that the test was homogeneous.

In this study the writer used correlation and regression analysis. Correlation analysis was used to find out whether or not there is a correlation between grammar mastery and reading comprehension. Furthermore, regression analyses was used to see the contribution between grammar mastery and reading comprehension.

Correlation between Students' Grammar Mastery and Reading Comprehension

To know the correlation between predictor (grammar mastery) and criterion (reading comprehension achievement) variables, Pearson Product Moment correlation analysis was conducted.

Table 3
Result of Correlation between Students' Grammar Mastery and Reading Comprehension

		Reading
Grammar	Pearson Correlation	.739**
	Sig. (2-tailed)	.000
	N	120

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

As presented in Table 3, the pearson coefficient between grammar mastery and reading comprehension was 0.739. In order to conclude that the predictor variable has a correlation with the criterion variable, the value of

r- obtained should be higher than the r-table and also the probability value should be lower than 0.05. If the value of the r-obtained and the probability did not meet the condition, the H_0 is accepted which means there is no significant correlation between two variables. The result showed that the value of r-obtained (0.739) was higher than the r-table (0.1793) and the probability also lower than 0.05. Therefore H_1 was accepted, which means that there was a significant correlation between the students' grammar mastery and their reading comprehension achievement.

The degree correlation is divided into 5 categories. There are very weak, weak, fair, strong and very strong. The detail information was presented in the Table 4.

Tabel 4
Degree of Correlation Coefficient

Correlation Interval	Degree of correlation
0.0 - 0.19	Very weak
0.20 - 0.35	Weak
0.36 - 0.65	Fair
0.66 - 0.85	Strong
0.86 - 1	Very strong

The result in this study showed that the value of r-obtained was 0.739. Based on description in Table 4, it can be concluded that the correlation between grammar mastery and students' reading comprehension test was categorized as a strong correlation.

Result of Regression Analysis

The linear regression analysis was conducted to see the contribution of the students' grammar mastery to their reading comprehension (see Table 5).

Table 5
Results of Linear Regression between Grammar Mastery
and Reading Comprehension

Model	R	R Square	Change Statistics	
			R Square Change	Sig. F Change
1	.739 ^a	.546	.546	.000

a. Predictors: (Constant), grammar

As shown in Table 5, the sig value (0.000) was lower than 0.05 which means that grammar mastery contributed significantly to reading comprehension. Therefore H_{02} was rejected and H_2 was accepted. Moreover, the value of R square pointed out that the contribution of the grammar mastery. The value of R

square was 0.547 which means that the students' reading comprehension was contributed by their grammar mastery.

Regression analysis was also conducted to see contributions of the aspects of grammar to reading comprehension. Table 6 presents the result of the analysis.

Table 6
Result of Contribution of the aspects of Grammar
to Reading Comprehension

Model	R	R Square	Change Statistics	
			R Square Change	F Change
1	.463 ^a	.215	.215	32,282
2	.531 ^b	.282	.067	10,915
3	.584 ^c	.341	.341	60,975
4	.584 ^d	.341	.000	.067
5	.589 ^e	.347	.006	.988
6	.595 ^f	.354	.008	1,340
7	.640 ^g	.410	.055	10,699
8	.671 ^h	.450	.041	8,378
9	.672 ⁱ	.452	.001	.287
10	.695 ^j	.483	.031	6,761

a. Predictors: (Constant), imperative

b. Predictors: (Constant), imperative, continuous

c. Predictors: (Constant), imperative, continuous, pronoun

d. Predictors: (Constant), imperative, continuous, pronoun, quantifiers

e. Predictors: (Constant), imperative, continuous, pronoun, quantifiers, conjunction

f. Predictors: (Constant), imperative, continuous, pronoun, quantifiers, conjunction, present

g. Predictors: (Constant), imperative, continuous, pronoun, quantifiers, conjunction, present, comparison

As shown in Table 6, the contribution of *pronoun* to reading comprehension was 34.1%, *quantifiers* was 34.1%, *conjunction* was 34.7%, *simple present tense* was 35.4%, *comparison* was 41.0%, *singular* was 4.50%, *modal* was 4.52%, *past tense* was 4.83%, *imperative* was 21.5%,

continuous was 28.2%. It can be concluded that six aspects of grammar mastery gave the significant contributions because the sig F values were lower than 0.05.

DISCUSSION

The students' grammar test mean score which was 74 suggested that their grammar mastery was considered good. The reading comprehension mean score which was 80 suggested that the students demonstrated a good reading performance. There were more than 50 % of the students were included in the good category. Detail which was one of the aspects of reading reached the highest score. Detail gives specific information for the students about the text. According to Stepson and Harold (2009), reading for detail is skill that can be used by a reader to get all of the information of the text thoroughly. Readers need to be more careful and slower assuring that they have correctly understood the message. The lowest score was in main idea. The writer assumed that the students got difficulties to get the idea of the text was probably because they had no interest in reading. As Dwiarti (2005) reported, the students got difficulties in finding the main idea of the text because some factors such as lack of interest toward reading, background knowledge, lack of vocabulary, and unaware on the parts of the paragraph.

The result of the statistical analysis showed a significant correlation between two variables, suggesting that the better the students' understanding of the grammar, the better their reading comprehension performance would be. This was also supported by the result of the regression analysis which showed that the students' grammar mastery gave significant contribution to their reading comprehension. According to Baldwin (1995), "Reading text is an interactive process of the grammar competence owned by the reader. It is also to say that grammar gives high

contribution to students reading comprehension as well". In addition, Multer, Hulme and Snowling (2004) found that there are several important rules that affect reading comprehension such as phoneme and letter knowledge to evolve the skills for introduction the early word. They also find that vocabulary knowledge and grammatical skills play significantly in getting the desired result in reading comprehension. This is in line with some previous studies. For example, Negara (2016) found that there was a very high correlation between students of grammar mastery and reading comprehension. Karyadi (2016) also found that there is a correlation between students' mastery of grammar and their reading comprehension achievement.

The regression analysis which was conducted to see the contributions of the aspects of grammar to reading comprehension were *quantifiers*, *conjunction*, *present tense* and *modal*. It was assumed that conjunction gave low contribution to reading comprehension was because the students were still confused about the use of conjunction since they had to know the meaning of the sentence before deciding what conjunction they would use. As stated by Aloba (2015), lack of knowledge about coordinating and subordinating conjunction in terms of meaning and functions is the most difficult area of English language, the correct usage of connectors is one of the problems that students face. Present tense gave a low contribution to reading comprehension was probably because it was quite complicated for them to understand it. Third, quantifiers gave a low contribution might be because the students got difficulties to differentiate kinds of quantifiers, for example how

to use *much*, *many* and *a lot of*. The students also got a difficulty in using countable and uncountable nouns. It is supported by Mahabbah (2013) who reported that the problems often occur in students' daily life; they are confused to distinguish the using of quantifiers for countable and uncountable noun. The low contribution of the grammar aspect *modal* was assumed because the students still did not understand what modal is and how to use it. This is in line with what Ling (2016) reported that modal auxiliary verbs are among the most problematic grammatical item in the teaching and learning of English as a second language.

CONCLUSION AND SUGGESTIONS

Based on the findings of this study, it can be concluded that the students who had good grammar mastery in English also demonstrated a good reading comprehension performance. In other words, the students' grammar mastery could influence their reading comprehension achievement.

Two suggestions are offered based on the findings of this study. First, the students need to improve their reading skill in finding main ideas. Second, the form of grammar such as *S+ V agreement* should be given more attention. English teachers are expected to also focus on grammar when they teach reading. For example, if the text was a recount text, the teacher can also discuss about past tense.

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