

GRAMMAR MASTERY AND WRITING ACHIEVEMENT OF THE TOEFL: A CORRELATIONAL STUDY AT HIGHER EDUCATION

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ABSTRACT

The research was a kind of correlational study which had objective to determine the association of grammar mastery and writing achievement in making prediction how much the correlation among the variables quantitatively. Population of the study was the fourth semester students of AMIK Mitra Gama registered on 2019/2020 academic year totally 126 students, 30 students was the sample of this research taken by cluster sampling technique. Test of grammar and writing adapted from Cambridge Preparation TOEFL was the instrumentation. Data analyzed by using correlation Pearson Product Moment (r -test). The result of the study found that $r_{observed}$ (0,92) is higher than r_{table} (0,362) on 0,05 significance level. In addition, hypothesis testing resulted that H_1 (there is a correlation between grammar mastery and writing achievement) is accepted, but H_0 (there is no correlation between grammar mastery and writing achievement of the TOEFL) is rejected. In sum, there was a significant correlation between mastery of grammar and writing achievement for the fourth semester students of AMIK Mitra Gama. From the result of the research, grammar and writing should be stated on lesson plans of English 1, 2 and 3 course and taught more intensive since those skills also support student's achievement to administer TOEFL.

Keywords : Correlation study, Grammar mastery, Writing achievement, TOEFL, Higher Education

INTRODUCTION

The function of English as foreign language in Indonesia means English learnt practically for all level of academic. Based on 2013 curriculum, English is taught from level up of junior high school. Some elementary schools only in Indonesia starts to teach English from this level to the students. At level junior and senior high school, English is used as one subject testing for national examination. In addition, teaching English at higher education becomes an important course (Kostikova et al., 2018). The purpose of this subject are required to form the humanist values in the young generation. Cultural awareness is one kind of the humanist values. It remains the national culture and enlarges the respect of world's culture.

In learning process of English, the four language skills, for example, listening, speaking, reading and writing have to be mastered by the students. English learnt to get knowledge because most of the references book written in English. English used to get relationship among the countries in the world as English function is one of the international language to communication. In addition, English is the most functional language which is used by worldwide community. In order to take part in the competition in globalization era, the students have to master English. Mastering English help students to be able to access some amount of information (Negara, 2017).

The students should know how to express language such as English. It is produced by the active skill. One kind of the productive skill is writing. This skill is more complex because it is not only the graphical presentation of speech but also the development of its structural way. Furthermore, in writing process, the students also have to consider some aspects for example content, organization, purpose, audience, vocabulary, punctuation, spelling and mechanics. The students sometimes need much time to find fascinating topic before they write. Christina (2021) states that to assess a good writing, there some principles to be considered. It should be briefly, use known words, more specific , real and to the point.

In addition, to make a good writing, the students need to learn grammar. Grammar includes the primary understanding pattern to make a good sentences. There are also another skills that is important behind the four skill areas, namely vocabulary or mastery of grammar (Horváthová, 2014). The students require to learn and study the new words or structure of grammar to make them be able to hear, speak and write.

Based on English curriculum at AMIK Mitra Gama, the fourth semester students take Applied English II. Requirement of this course is the previous English course namely Applied English I. The students who take the course have to have a good mastery of grammar and their writing is better. In fact, based on research conducted at AMIK Mitra Gama (Melati, 2020), grammatical problems such as using adjective, article and verb still found. It gives the bad effect to the quality of students' writing.

A previous study about correlation between grammar mastery and writing achievement conducted by Betoni & Ulfaika (2020). The title of the reserach is “The Correlation between Students' Grammatical and Students' Writing Achievement at XI Grade Students of SMAN 1 Tarakan Academic Year 2019/2020”. The sample took by using pruposive sampling technique. The result showed that there was a significant correlation between students' mastery and students' writing achievement. The instrumentation was test of grammar and writing.

Since there was no research such above, the writer would be conducted the research in higher education. Purpose of this study is to investigate the correlation between mastery of grammar and writing achievement at higher education. The writer used cluster sampling technique in taking the sample. Then used test of grammar and writing adapted from Cambridge Preparation TOEFL.

METHOD

According to Tavakoli in Sudiyono (2020), research design means the positioning situation to collect and analysis the data that suitable with the research purpose. It is such kind of conceptual form from collecting, measuring and analyzing the data of research. The writer used a quantitative research design. Quantitative research means a study conducted to describe some phenomena in the field by collecting the numerical data and it was analyzed based mathematically method (Betoni & Ulfaika, 2020). Correlational study design was its kind of the implemented research. Purpose of this research was to analyze the relationship between two variables : mastery of grammar and writing achievement. Independent variable was the mastery of grammar (often symbolized by X) and the writing achievement was the dependent one (symbolized by Y).

Population refers to group of research subject discovering by the writer to be analyzed and made the conclusion. Population of this research was the fourth semester students of AMIK Mitra Gama registered on 2019/2020 academic year, totally 116 students from two study programmes : Informatics Managament and Computer Engineering. The representation of the population called sample taken from cluster sampling technique by lottery system. Then 1 MMI 1 students were chosen as the sample, totally 30 students.

In collecting the data, the writer used some instruments as the tool. Instrumentation in this research were test of grammar mastery and the writing test which adapted from TOEFL question's sheet. Multiple choice questions used for grammar mastery test that consisted of 40 items and each item scored two point five (2,5 point per item). In addition, for writing test, the writer adapted the topic chosen from Cambridge Preparation TOEFL. The students asked to choose one of the five topics given. Then scoring of writing by using three items measuring, namely topic sentence, supporting idea and conclusion. This item scored maximal 33 points. The time given only 60 minutes to finish each tests. After collecting the data finished, the data analyzed by using Microsoft Excel. The formula used correlation Product Moment by Pearson (r-test) to measure the relationship between mastery of grammar and writing achievement.

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

where :

r_{xy} : Coefficient correlation between x and y variables

N : Numbers of students

$\sum x$: Sum of x

$\sum y$: Sum of y

$\sum x^2$: Square of x

$\sum y^2$: Square of y

$\sum xy$: Total scores of cross product x and y

With criterion of Correlation Coefficient can be seen below:

0 : There is no correlation between variable X and Y

>0 - 0,25 : Weak Corellation

>0,25 – 0,5 : Sufficient Correlation

>0,5 – 0,75 : Strong Correlation

1 : Perfect Correlation

If r_{observed} is greater than r_{table} , significant correlation within two variables are indicated. The correlation coefficient is a decimal number between 0,00 and +1,00 and -1,00. When the value of r_{observed} is between 0,00 until +1,00, it means the two variables (X and Y) are positive correlated in which the students who get high score in grammar test could be also obtain the higher score in writing. The research hypothesis (H_a) is accepted and the null hypothesis (H_0) is rejected. In contrast, if the coefficient correlations near with ,00, the two variables (independent and dependent variables) are inversely correlation. The research hypothesis (H_a) is rejected and the null hypothesis (H_0) is accepted.

FINDINGS AND DISCUSSION

Findings

Students' Grammar Mastery

Independent variable or called X variable of this research is grammar mastery. The grammar test used to get the data about the sudents' mastery in grammar. The test was multiple choice which was totally 40 items. Each items included four possible answer namely

a, b, c, and d, and only one was the correct answer. The right answer got 2,5 point. Time allocation of the test was only 60 minutes.

The result of the grammar mastery which has 30 students found that the range score was 50 with the total amount of score was 1772. The average score was 59,06. The lowest score was 37 and the highest test score was 77. The explanation could be seen as below:

Table 1. Grammar Mastery Statistically Result

	N	Range	Sum	Mean	Minimum	Maximum
Grammar Mastery	30	50	1772	59,06	37	77

In addition, further information about statistically result above can be detailed by Figure 1. From information of Figure 1, it can observe that 7 students obtain 0-49 score of grammar test. 50-59 score of grammar test is obtained by 5 students. Then 18 students obtain 60-79 score of grammar.

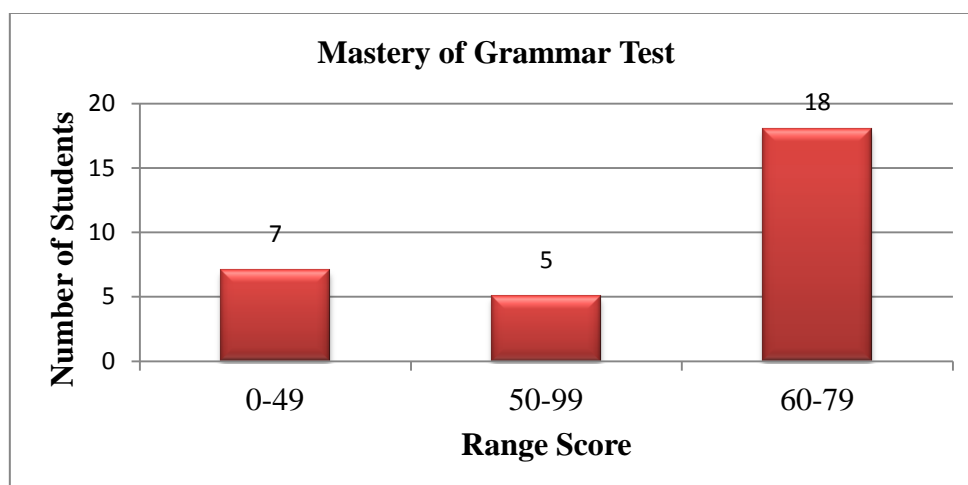


Figure 1. Score of Mastery of Grammar

Students' Writing Achievement

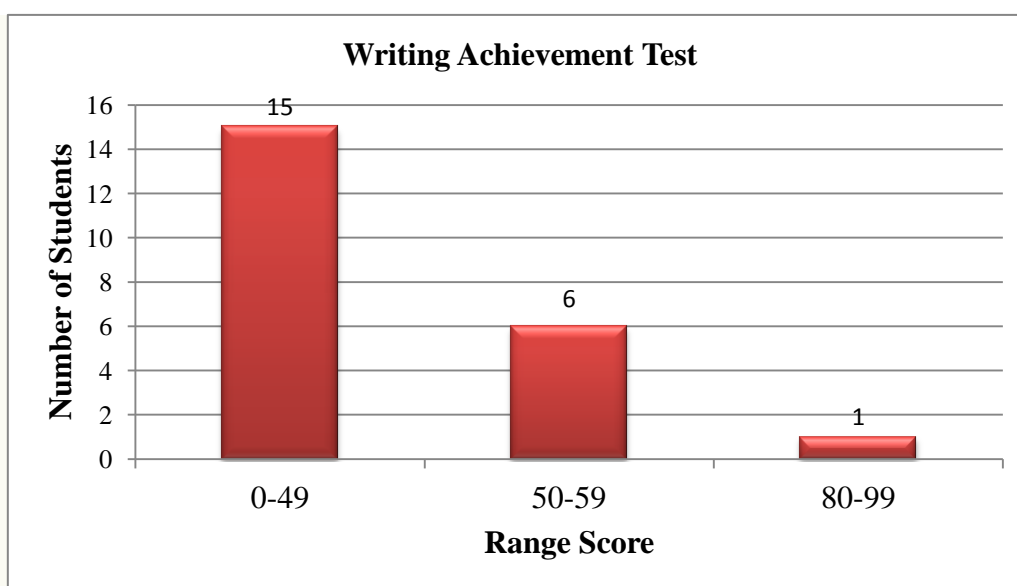
In this study, witing achievement is the dependent variable or called Y variable. The writer obtains the data from writing test. The test was a kind of essay in which the students can choose one of the five topics given. The topics adapted from Cambridge Preparation TOEFL. The rubrics of evaluation focus on student's ability in writing topic sentence, supporting idea and conclusion. Time allocation for this test was only 60 minutes.

The result of the student's test of writing achievement can be seen on the Table 2. From the table, the average score of 30 students with range 49 was 52,2. Total score of all students 1556. The minimum score was 33. In contrast, 82 was the maximum score.

Table 2. Writing Achievement Statistically Result

	N	Range	Sum	Mean	Minimum	Maximum
Mastery of Grammar	30	49	1556	52,2	33	82

Furthermore, information about statistically result of writing achievement above can be detailed by Figure 2. From Figure 2, it can be seen that 15 students obtain 0-49 score of writing (poor). 50-59 score of writing test (poor to average) is obtained by 6 students. Then only 1 students obtain 60-79 score of writing (average to good).

**Figure 2. Score of Writing Achievement**

Correlation between Mastery of Grammar and Achievement of Writing

After the writer gets result from the test of mastery of grammar and writing achievement, the writer comes to calculate the correlation by using Pearson Product Moment formula (called r-test). Since the source of the test used the legal reference (Cambridge Preparation TOEFL), the tests' validity and reliability did not evaluate. The input data for r-test are described by Table 3 below:

Table 3. Data of Score List Variable X and Y for Calculating r-test

No	Sample	Mastery of Grammar (X)	Writing Achievement (Y)	X ²	Y ²	XY
1	MH	77	82	5929	6724	6314
2	MRS	57	48	3249	2304	2736
3	MFR	50	45	2500	2025	2250

4	FFP	47	45	2209	2025	2115
5	TA	52	48	2704	2304	2496
6	RSW	72	66	5184	4356	4752
7	YMA	42	33	1764	1089	1386
8	ARF	55	48	3025	2304	2640
9	FF	70	66	4900	4356	4620
10	ACN	65	53	4225	2809	3445
11	AA	72	72	5184	5184	5184
12	GYPH	37	33	1369	1089	1221
13	RV	62	53	3844	2809	3286
14	RRN	65	53	4225	2809	3445
15	DFS	42	45	1764	2025	1890
16	JRA	60	48	3600	2304	2880
17	RY	67	66	4489	4356	4422
18	ETG	75	66	5625	4356	4950
19	CPD	62	53	3844	2809	3286
20	AAS	40	33	1600	1089	1320
21	ERP	70	66	4900	4356	4620
22	EAM	47	45	2209	2025	2115
23	RS	60	48	3600	2304	2880
24	PBB	62	53	3844	2809	3286
25	IW	70	65	4900	4225	4550
26	WA	47	33	2209	1089	1551
27	SH	60	53	3600	2809	3180
28	F	52	33	2704	1089	1716
29	BHW	75	66	5625	4356	4950
30	CAS	60	48	3600	2304	2880
Σ		1772	1566	108424	86492	96366

\bar{X}	59,066	52,2	
Minimum	37	33	
Maximum	77	82	

Then, the data of Table 3 input to the r-test below:

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

$$r_{xy} = \frac{30.96366 - (1772)(1566)}{\sqrt{\{30.108424 - (1772)^2\} \{30.86492 - (1566)^2\}}}$$

$$r_{xy} = \frac{2890980 - 2774952}{\sqrt{\{3252720 - 3139984\} \{2594760 - 2452356\}}}$$

$$r_{xy} = \frac{116028}{\sqrt{\{112736\} \{142404\}}}$$

$$r_{xy} = \frac{116028}{\sqrt{160540057344}} = \frac{116028}{126704,6} = 0,9157$$

Based on calculation of r-test above, it was found that $r_{\text{observed}} = 0,92$ and $r_{\text{table}} = 0,362$ with the degree of significant $\alpha = 0,05$. The value of correlation Product Moment (r_{observed}) is higher than r_{table} ($0,92 > 0,362$). The correlation categorized on very strong correlation. For hypothesis testing, the alternative hypothesis (H_a) of this research is accepted, but the null hypothesis (H_0) is rejected. It means there is positive correlation between students' mastery of grammar and their writing achievement.

Discussion

Primary data of this research was the score list of grammar and writing test of the fourth semester students of AMIK Mitra Gama. The writer used the test of grammar to represent student's mastery of grammar and test of writing represented students' ability in writing. After the writer gets the score list of these tests, the writer calculated the correlation between the two variables (X and Y) by using Pearson Product Moment formula (r-test) via Microsoft Excel. From the data analysis statistically, it is obtained that the value of r_{observed} is 0,92. In contrast, r_{table} with 0,05 degree of significant for $N = 30$ is 0,362. In addition, the value of

r_{observed} (coefficient correlation) is higher than the value of r_{table} (the value of coefficient table), statistically it symbolizes $0,92 > 0,362$.

Based on this statistic analysis, the writer interpreted that there is significant correlation between the students' grammar mastery and their writing achievement. It is indicated that there is a positive correlation between independent and dependent variable. It means that the better student's mastery of grammar, their writing achievement will be better. It is supported by Diarani & Syamsi (2019), she states that grammar is the basic foundation to write correctly. Having a good grammar mastery, the students are able to produce good writing.

This study is relevant with result of research done by Betoni & Ulfaika (2020). Their research also did to analyze the correlation between mastery of grammar and writing achievement. The writing focus on writing the descriptive text. Sample of her study was the eleventh grade students of SMAN 1 Tarakan. The result of her study was a positive correlation between students' mastery of grammar and their writing achievement.

Some research also conducted at university that proved the writer's research. Previously, Widya & Wahyuni (2018) conducted the research to investigate the correlation between mastery of grammar and writing the thesis proposal. Population of her research was sixth semester students at STKIP YDB Lubuk Alung. She concluded that there was a significant relationship between grammar mastery and writing achievement of students' thesis proposal writing.

Then, Jamaludin & Nurdiawati (2021) finished the research in investigating the correlation between grammatical mastery, writing and listening comprehension. The research conducted at Pancasakti University in Tegal which 30 students of English Education students became the sample. One of her hypothesis proved that there was strong positive correlation between students' mastery of grammar and their writing achievement.

In contrast, this research was irrelevant with Wyse & Torgerson (2017) research. They conducted the case to examine the national curriculum policy by using teaching grammar to help students' writing in England. They found that the mismatch between national curriculum policy with teaching writing. They concluded that writing does not depend on mastery of grammar.

CONCLUSION AND SUGGESTION

In conclusion, from the result of research analysis statistically, there is a positive correlation between mastery of grammar and writing achievement of fourth semester students of AMIK Mitra Gama registered on 2019/2020 academic year. Since there is a positive

correlation between between mastery of grammar and writing achievement, it is important for the English lecturer to pay attention much to these aspects in arranged the English curriculum at the higher education such as AMIK Mitra Gama. Grammar and writing should be focused on its curriculum. It should be stated and teach more intensive and stated on lesson plans of English course. For further researchers, it is suggested that deeper study about the qualitative aspects why does mastery of grammar and writing achievement really relates each other.

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