The Correlation between Students' Vocabulary Mastery and Their English Paragraph Writing Ability

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ABSTRACT

The researcher is interested in finding out if students' vocabulary mastery correlates with their writing skills. The 44 students were selected using a purposive sampling technique, they were selected from the population of all the 10th grade students at State 3 Senior High School Tangerang District. A vocabulary test and a writing test were used to collect the data. The Pearson Product Moment Correlation was used to examine the relationship between the two variables. The result shows that coefficient between variable X and variable Y is 0.682. The criteria of correlation between two variables among 0.600 – 0.800 shows a high or strong correlation. The significant level at 5% is r-table = 0.297, it means r_{xy} > r-table (0.682 > 0.297). The r-table significant level at 1 % is 0.384, it means that the r_{xy} > r-table (0.682 > 0.384). The result of the analyses shows that there is a positive and significant correlation between students' vocabulary mastery and students' writing skill of State 3 Senior High School Tangerang District. The null hypothesis (H_0) is thus rejected, while the alternative hypothesis (H_a) is accepted. In other words, students who perform well on vocabulary examinations tend to be good writers as well.

Keywords: correlation, students' vocabulary mastery, writing skills.

INTRODUCTION

Today, capable on English is considered as an essential requirement for achieving social, academic and economic advance around the world (Fandiño et al., 2019). Mastering English is very important and beneficial for everyone for instance in communicating, taking an English test, getting a job, applying scholarship, applying delegate in Model United Nation (MUN) or volunteer event, even for the sake of business diplomacy. As a consequence, it is not surprising that in Asian countries where English is taught as a foreign language, English has been admitted as part of the essential English education curriculum. (Sulistiyo et al., 2020). Then, we all know that for Indonesian students, English is a foreign language and still rarely students which fluent in English. English has become the compulsory subject on national curriculum starting from the primary school. Learning English language from

primary school should help them begin able in English. Despite that, the fact is many Indonesian students are still not fluent and understand English language. Meanwhile, in the Indonesian education curriculum, the students required to mastering 4 skills in English language, listening, speaking, reading and writing (LSRW).

Writing is one of someone's way in expressing their idea through the stages of thinking then put it in a written form. In line with Putu et al., (2020) which stated that writing plays an important role in learning English because it leads students express their ideas on a paper. Then, according to Harmer (2004) that writing is kind of mode or style in communication to convey thoughts or to elaborate feeling through writing. Message or information to others on particular topic or subject is conveyed by writing (Yusuf et al., 2019). So, writing indicates as one of the 4 English skills that is necessary to learn, because writing becomes a way to convey information to others. Generally, writing is very important that communication is transmitted more through writing than any other type of media.

Writing also becomes the highly needed in some fields such as business and education. As example, in business, when we write letter for job applications, there are so many prosperity professions out there obligate the applicants to be able in writing skill in order to arrange the work planning to exchange information with business colleagues via e-mail, especially during this pandemic era which cannot do the face-to-face meetings as usual. In education, we need a good writing skill for applying fully-funded scholarship or volunteer big event, we also need a good writing skill in school to help us communicate in the written form and completed well all the tasks given, because teacher often give tasks to students which most of them are in written form, start from answer the questions, make a report task, paper, until presentation. Then, now, the English teacher can command the students to start practice writing by a sentence to a paragraph.

Paragraph is a group of sentences that associated with an idea as the definition of it. If in one paragraph there is a discussion of more than one topic or issue, so it is unacceptable and it is not referred to as a paragraph (Wali & Madani, 2020). It is clear from the above definition that only one issue is discussed in a paragraph. So, we can say that the English paragraph writing is a paragraph which consists of one issue or topic in English. The English paragraph writing can be used as a complement to the daily task that can hone the students' writing skill further. It hopes that English paragraph writing is useful to help students meet their academic needs (go beyond the standard minimum criteria) and workplace requirements when they graduate.

Teaching writing has some objectives that are to make the students take care of what is on their mind, train them to think creatively and practice to write because they

must be familiar with the writing aspect or components to convey a message and get the valuable writing. Troyka (2010) as cited in Yusuf et al., (2019) added that the objectives of writing are in order that the writers can express what they feel, present information, assure the readers and produce literary work like article, essay, story of history, pamphlet, brochure, et cetera.

However, learning to write is not effortless as it looks because there are complicated rules in it which cannot be ignored. That explanation has supported by Blanchard and Root (1998:1) as cited in (Dwifadjrin & Pamungkas, 2020) that in learning a new language to write is not always easy. It needs to be learned by everyone which is learning a language like students in school. That is why the Indonesian curriculum insert English writing skill on it as the compulsory subject in hope that Indonesian students can capable in writing.

According to Nunan as cited on Rao & Durga, (2018) writing is a highly complex cognitive activity where the author needs to demonstrate spontaneous control over the variables. Then, Hayati et al., (2021) stated that writing is more complicated and challenging than other language skills. So, based on the statements of the experts, it can be concluded that writing is a complex activity. Then, it will be more complicated when it written in a foreign language such as English language. Whereas, when we write on our first-language (L1) we

sometimes still do mistakes in writing.

In English senior high school material, writing is learning several kinds of texts, such as descriptive, procedural, recount, narrative, et cetera. Then, each text learns different things, generic structure and feature of language. According to Dwifadjrin & Pamungkas, (2020) commonly, the difficulties that students face when they want to write are not only found in error translating and developing the ideas through writing, but also the use of proper grammar and vocabulary that must be examined in asserting thoughts in the form of a text so the readers can grasp what has written.

As mentioned before that writing is a complex activity and will become more complicated when it is in a foreign language, writing also cannot be ignore because it needs several components that build up the text. The students must be familiar with the writing aspect or components to convey a message and get the valuable writing. Then, every text concern with many different items such as content of the text, the text organization or mechanism, the grammar or structure of text, and vocabulary.

Vocabulary is one of the most important language aspects that aids students in learning a language. The vocabulary is referred to the body of words that applied in certain language. Building vocabulary becomes the simplest ways in improving the skills ability in a language. Vocabulary is a basic competence that students have to

learn before they learn the other skills in learn a language because without knowing the vocabulary, students will face so many difficulties. As stated by Min (2008) cited on Chen et al., (2019) the acquisition of English vocabulary is the main foundation for students in learning English as a foreign language. Thus, we have to learn the basic skill if we want to be able in English language, because the richer our vocabulary, the more we will be able to conquer English and its 4 fundamental skills. Based on Thornbury (2002) in Asyiah (2017: 294), he told that:

> "Mastering vocabulary means that students have comprehensive knowledge about the vocabularies which include the meanings, the spoken form, the written form, the grammatical behavior, the word derivation, the collocations of the words, the register of the word – spoken and written, the connotation or associations of the word, and word frequency."

Then, Hariati (2020) states that:

> "One learns a language like English to enable him to communicate in that language. He intends to be able to listen, read, speak and write in that language. In order for him to achieve these goals, he must pile up and master a host number of vocabularies, for he cannot communicate his ideas as clearly as he would like to, and he cannot grasp the ideas transmitted to him, or reads newspaper columns or popular magazines or even understands newscast on the radio or television if he does not have the basic vocabulary for particular or general purpose."

This thing indicates for someone to build up and pocket a lot of English vocabulary first to support their ability in mastering English if she or he wants to be able in English. In addition, according to the Nation (1994) as cited in Istifadah (2019) the large of vocabulary makes it easier to successfully complete the four skills in English. To mastery English language, students have to learn about vocabulary then they can understand English what they read or they write (Istifadah, 2019).

According to the English teacher of State 3 Senior High School, there are several students that have good vocabulary and the rest students still have lack vocabulary pocket and even cannot distinguish among the noun, verb, adverb and adjective, as well as write the spelling words well.

The diagram table below provides the score of students of 10 MIPA 3 of descriptive text task. 10 MIPA 3 is one of the top-class with some excellent students, but it turned out that there were some students who still got unsatisfied score or not exceeded the minimum criteria value *(KKM)* even though they have done the remedial for the task given.

Table 1. Score of Students State 3 Senior High School

Remedial Descriptive Text Score
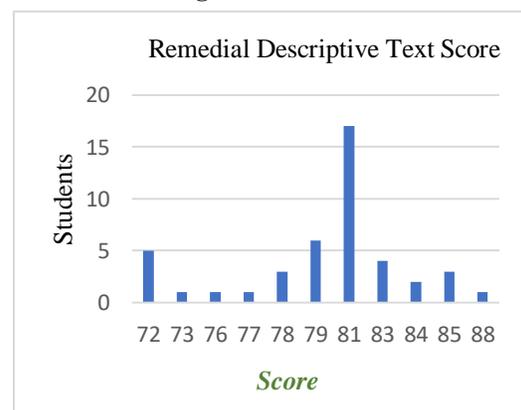
Source: English teacher of State 3 Senior High School Tangerang District, 2021.

These were a number of issues discovered among the 10th grade students on State 3 Senior High School Tangerang District. The researcher attempts to evaluate the students' English vocabulary problem, especially in composing the correct spelling and trying to distinguish among the noun, verb, and adjective. By applying it, the researcher can get to know how is the correlation between students' English vocabulary and their English paragraph writing ability, especially descriptive text.

The concern for the students' English vocabulary in 3 State Senior High School Tangerang District has inspired this research to help students improve and expand their English vocabulary by training them through writing practice. Hopefully, through this concept can affectively motivate the students to learning language, especially to increase their vocabulary comprehension (spelling words and the differences among noun, verb, adverb, and adjective). Besides, also helps students how to write well. So, the researcher would like to conduct research on the title "The Correlation between Students' Vocabulary and Their English Paragraph Writing Ability (Survey of 10th Grade Students of State 3 Senior High School Tangerang District)".

METHOD

This research is kind of quantitative method with survey research design. The research was located in State 3 Senior High School Tangerang District. The population on this research was 307 students, all the 10th Science grade students of State 3 Senior High School Tangerang District in academic year 2021/2022. Then, the 44 students of 10 IPA 3 at State 3 Senior High School Tangerang District in academic year 2021/2022 became the sample of this study.

This research conducted with purposive sampling because the researcher was not allowed by Mr. HDF, as the English teacher to create a new class through simple random sampling, the class cannot be changed and also based on the English teacher's recommendation.

The researcher used test as the research instrument. The test contained of two tests, vocabulary test and writing test. Researcher used a multiple-choice test question consisting of 20 questions with A, B, C, D and E for vocabulary test, and essay or English paragraph writing in descriptive text type for writing test. In addition, the researcher conducted the two tests to find out whether there was correlation between students' vocabulary mastery and their English paragraph writing ability.

The result of vocabulary test and writing test were calculated by using SPSS 22 Version to know the normality and the linearity and also to the hypothesis of the research. The normality test aims to find out whether the data obtained are normally distributed or not. In this study, the researcher calculated the data using One-Sample Kolmogrov-Smirnov. The linearity test is used to

determine if there is a relationship between the variables being studied

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Vocabulary Score	44	68.07	15.597	30	90
Writing Score	44	79.20	5.700	65	90

(Qommusuddin, 2019). And After the researcher got the normality and linearity test result, the researcher conducted a hypothesis test or what is called the t-test. Sudijono Anas (2019) explained the "t" test is a statistical test used to test whether a hypothesis is true or not . In this research, the statistic calculation used non-parametric since the data was not normally distributed. The researcher used non-parametric statistics by Monte Carlo Significance value.

FINDING AND DISCUSSION

After conducting the test, the researcher got the test results that had been given to the 10th Science 3 grade students of State 3 Senior High School Tangerang District, and to analyze the data that had been obtained the researcher used IBM Statistics version 22. Based on the students' test results, the lowest score of vocabulary test was 30 and the highest was 90. The mean score of vocabulary test was 68.07. It was meant that the students' vocabulary mastery was in fair category. The lowest score of written testing was 65 and the highest score was 90. Then, the mean score was 79.20, it indicated that the students' writing skill was in good category. It can be

seen in the table of statistical description of research data below.

Table 2. Statistical Description of Research Data
Source: output result from IBM SPSS version 22 (2021)

The researcher has data after did test to students. The lowest vocabulary test score was 30 and the highest was 90. There were 18 of 44 students succeeded in exceeding the minimum completeness criteria (KKM) and the others have yielded unsatisfactory outcomes. In addition, the lowest writing test results are 65 and the highest is 90. The students who can exceed the KKM in the writing test are 42 students and 2 students are still under the KKM. The Minimum Completeness Criteria (KKM) of English lesson at State 3 Senior High School Tangerang District is 75. Based on the explanation above, it shows that the students' vocabulary mastery correlated to their English paragraph writing ability, because the students which can exceed the minimum completeness criteria (KKM) in vocabulary test they also can reach the minimum completeness criteria (KKM) of writing test and even several of them got score higher than 75. In other words, their vocabulary helps them to do the writing test well.

In this research, the sample was less than 50 so the researcher uses Shapiro-Wilk that recommended to determine whether the data were normally distributed or not. Then, it is changed to a residual normality test with one-sample Kolmogorov-Smirnov (Non-parametric) by

Monte Carlo when Shapiro Wilk normality test is already being used but the data is not normally distributed.

In normality test, there are characteristics that make it fall into the category of data that are normally distributed or not. The characteristics are if the results of the normality test > (0.05) or more than 0.05, then the data are normality distributed. The data are not distributed normally when test results are < (0.05) or less than 0.05.

The table below provides the normality test:

Table 1. The Result of the Normality Test

One-Sample Kolmogorov-Smirnov Test

			Unstandardized Residual
N			44
Normal Parameters[a,b]	Mean		.00000
	Std. Deviation		4.1687
Most Extreme Differences	Absolute		.135
	Positive		.135
	Negative		-.091
Test Statistic			.135
Asymp. Sig. (2-tailed)			.042[c]
Monte Carlo Sig. (2-tailed)	Sig.		.295[d]
	99% Confidence Interval	Lower Bound	.118
		Upper Bound	.473

a. Test distribution is Normal.
b. Calculated from data.
c. Liliefors Significance Correction.
d. Based on 44 sampled tables with starting seed 1314643744

Source: output result from IBM SPSS Version 22 (2021)

The Monte Carlo significance value between two variables is 0.295 > 0.05, which is greater than 0.05 at the 5% significance level. So, it can be said that the data was normally distributed.

After got the results of normality test, the researcher continued to calculated the linearity test. Linearity test serves to determine whether or not there is a relationship between variables being studied (variable X and Y). Then, the result of the linearity test can be known if the Sig. Value > 0.05, it indicates that the data were linear.

Table 4. The Result of the Linearity Test

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Writing Score * Vocabulary Score	Between Groups	(Combined)	839.242	12	69.937	3.886	0.001
		Linearity	677.070	1	677.070	37.621	0.000
		Deviation from Linearity	162.172	11	14.743	0.819	0.622
	Within Groups		557.917	31	17.997		
	Total		1397.159	43			

Source: output result from IBM SPSS Version 22 (2021)

Based on the table above shows that the correlation between students' vocabulary mastery and their English paragraph writing ability are linear because the deviation from linearity significance value is 0.622, which is greater than 0.05 (0.622 > 0.05).

In accordance with the problems aforementioned, the researcher wanted to know the correlation

between students' vocabulary mastery and their English paragraph writing ability. Then, to investigate whether there was any positive and significant correlation between students' vocabulary mastery (X) and their English paragraph writing ability (Y) of 10th grade students at State 3 Senior High School Tangerang District in Academic Year 2021/2022, the researcher used the Pearson Product Moment in SPSS to calculate the correlation. Here is the result of the test:

Table 5. Table of Correlation Test

Correlations

		Vocabulary	Writing
Vocabulary	Pearson Correlation	1	.682**
	Sig. (2-tailed)		.000
	N	44	44
Writing	Pearson Correlation	.682**	1
	Sig. (2-tailed)	.000	
	N	44	44

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

Source: output result from IBM SPSS Version 22 (2021)

According to the table of correlation test above, the Pearson correlation score of 0.682 indicates that there was a strong or high correlation between the variables X and Y. The correlation coefficient for the aforementioned outcomes was positive. The r-count 0.682 was located on 0.60 – 0.80 range, then it can be concluded that the correlation is strong or high correlation between the variables X and Y. It refers to the *r-* table adapted form Arikunto (2010) as cited on Rahmati (2018).

The researcher then proceed to calculate the statistical hypothesis in order to answer the hypothesis formulation. The statistical hypothesis must be tested since it must be expressed as a number that can be accepted or rejected. The statistical hypothesis will be accepted if the test findings confirm the statement and rejected if the statement is denied.

Different types of hypothesis testing exist based on the criteria used. The criteria for this test are if the t-count $>$ t-table, then H_o is rejected and if the t-count $<$ t-table, then H_o is accepted. Then, if the p-value sig. < 0.05, then H_o is rejected and if the p-value is sig. > 0.05, then H_o is accepted.

Table 6. The Result of Hypothetical Test

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	62.238	2.878		21.623	.000
Vocabulary Score	.249	.041	.682	6.044	.000

a. Dependent Variable: Writing_Score

Source: output result from IBM SPSS Version 22 (2021)

Based on the output table above, it shows that the value of t-cont = 6.044 $>$ 1.68385 (t-table) and the significance value is 0.000 < 0.05.

So, it can be concluded that H_a is accepted and H_o is rejected. It means that there is a positive and significant correlation between students' vocabulary mastery on the students' paragraph writing ability (skill) of State 3 Senior High School Tangerang District.

CONCLUSION

Based on the formulation of problem, the research objective, the hypothesis testing and analysis result, it can be concluded that:

a. After calculating the vocabulary test scores of the students, it was discovered that the total mean score was 68.07 points. Thus, it can be categorized that the students' vocabulary mastery of the 10th grade students of State 3 Senior High School Tangerang District was in fair category.

b. After calculating the written test scores of the students, it was found that the total mean score was 79.20 points. Thus, it can be categorized that the students' writing skill of the 10th grade students of State 3 Senior High School Tangerang District was in good category. It can be seen on the chapter 3 table 3.6.

c. Based on the results of the correlation analysis or research

analysis showed that coefficient correlation of the Pearson Product Moment Correlation was 0.682. Because the coefficient correlation was ranged on 0.600 – 0.800, it can be interpreted that there is a strong or high correlation between the variable X and Y. In other words, the result show that there is a positive correlation between the two variables.

Then, the significance between the X and Y variables can also be determined based on the research hypothesis. The significance value for the hypothesis test (partial test) in table 4.7 is 0.000 as a result of the sig. value was $0.000 < 0.005$, it was meant that the alternative hypothesis (H_a) is accepted and the null hypothesis (H_o) is rejected. As a result, it can be concluded that students' vocabulary mastery correlates with their writing skills (ability). On the other hand, there is a positive correlation between students' vocabulary mastery on their English paragraph writing ability (skills) of the 10th grade students at State 3 Senior High School Tangerang District 2021/2022 academic year.

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