

The Correlation of Students' Reading Interest, Vocabulary Mastery and Their Reading Comprehension

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Abstract: The study is aimed to find out The Correlation of Students' Reading Interest, Vocabulary Mastery and Their Reading Comprehension at Tenth Grade of SMA Paradigma. The method of the research used quantitative research. The population was 175 students and 40 students as a sample. The result showed that (1) There is no positive significant correlation between students' reading interest and their reading comprehension at SMA Paradigma Kabupaten Tangerang in Academic Year 2020/2021. With the value $t_{count} < t_{table}$ ($1,238 < 1,687$). (2) There is positive significant correlation between students' vocabulary mastery and their reading comprehension at tenth grade of SMA Paradigma Kabupaten Tangerang in academic year 2020/2021. The result of the variable students' vocabulary mastery is 2,473 which means $t_{count} > t_{table}$ ($2,473 > 1,687$). (3) There is a positive simultaneous correlation of students' reading interest, vocabulary mastery and their reading comprehension at tenth grade of SMA Paradigma Kabupaten Tangerang in academic year 2020/2021. The result of students' reading interest and vocabulary mastery on their reading comprehension with a significance value of $0,005 < 0,05$ it can be concluded that the greater the interest in reading, the greater their vocabulary mastery, and automatically students will have a good reading comprehension.



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INTRODUCTION

English is the universal language of communication used by all countries on the planet. According to Patel (2008) "English is a big key on the modern world." In Indonesia, English has been taught in school from kindergarten to senior high school. There are four language skills in teaching English, namely writing, speaking, listening and reading. There are two types of English skills to teach: receptive and productive. Writing and speaking are considered productive skills, while reading and listening are considered receptive skills.

According to Risdianti (2020) reading, as one of the fundamental skills, plays an important role in other subject. For example, when the students do the reading activity, they can also focus on writing summarizing an idea and write it down the base on what they read before about the content. Reading is one of the four essential skills that students can learn. Through reading, the students can increase their knowledge from books, articles, journals, magazines, or newspapers. The students who like reading will have more knowledge or information about the many things they had read. Also, they can

share information from what they have been read to other students. Reading will provide the students with lots of information about the world that will contribute to their success in study and surely come in useful. Reading is important to get information, but it is meaningless if you do not understand what you are reading. Reading necessitates comprehension, or the ability to comprehend what is being conveyed in the text. Students must not only grasp the context of a text, but also what is written in the text while reading.

Reading Comprehension is influenced by several factors. According to Smith (2008) Adept at comprehending a text can be impacted by fluent and accurate word reading skills, oral language skills (vocabulary and linguistic comprehension), level of factual and conceptual knowledge, skills and cognitive strategies that aim to improve comprehension, motivation to understand and interest in assignment and material.

As mentioned above, one of the factors that influence reading comprehension is interest. According to Krapp as cited by Ainley et al., (2002) individual interest has been identified as a relatively lasting predisposition to attend and participate in certain activities with certain objects and events. To put in another way, interest is an intrinsic motivation that motivates students to do what they enjoy in order to pay attention to their needs. They would be inspired to participate in an activity if they are interested in it. As a result, interest is a crucial aspect of reading that will aid students in focusing their attention on the text they are reading.

In addition, vocabulary mastery is also one of the factors that can influence students' reading comprehension. Vocabulary is the only component in speaking and reading Schmitt (1997). It means vocabulary is an important component to improve the use of language in speaking and reading. Vocabulary mastery can help students understand what they are reading because if students have a lot of vocabulary knowledge, it will certainly be easy for students to understand the meaning of the text that they are reading.

Based on the writer's interview with one of the English teachers at SMA Paradigma Kabupaten Tangerang, the writer found several problems in the process of learning English. Most of them still have difficulty to communicate in English. Most of all students feel nervous and afraid when they want to read text in English. Students do not have the ability to read correctly pronounced because students lack vocabulary and do not understand the words in the text. This data is provided by the teacher at SMA Paradigma Kabupaten Tangerang when the writer did interview with the teacher. The students still have lower scores from the minimum completeness minimum Criteria (KKM). The students have difficulty in finding the main idea of the text they read. Most of them find some difficulties in comprehending English reading text. Considering, students' interest in reading and vocabulary mastery leads to Read. Comprehension. It is better if teachers increase students' comprehension in reading and develop students' vocabulary skills. To increase students' interest in reading, teachers can use attractive text. So that students can read well and do not get bored quickly with what they read. As Ariyanti & Qomar (2016) said that if everyone reads a lot, of course, they have a lot of vocabulary and can add to their vocabulary list. When students get interested in reading, students can find new vocabulary in the text they read. Of course, it will improve their vocabulary mastery.

Therefore, the objective of the research can be stated as to find out the correlation of reading interest, vocabulary mastery and their reading comprehension.

METHOD

Time and Place of the research

This research was conducted in SMA Paradigma Kabupaten Tangerang in academic year 2020/2021. It is located on Jl.IR. Sutami, Mauk Timur, Kecamatan Mauk, Kabupaten Tangerang, Banten, Indonesia. The writer chose this school because there were some problems with students' reading comprehension, students' reading interest, students' vocabulary mastery and their scores did not meet the minimum criteria. The writer was conducted the research started from Desember until July 2021.

Method of the research

According to Rush et al (2000) correlational research is also sometimes referred to as from of descriptive research because it describes an existing relationship between two variables, indicating that similar variables or mutually variable thresholds are shared by the variables.

The writer chose the type of quantitative research with the correlational design and for data collection, the instruments used questionnaire and tests and the results of the data that had been collected were analyzed using SPSS. This research consists of three variables, students' reading interest as a independent variable (X1), students' vocabulary mastery as independent (X2), and reading comprehension as a dependent variable (Y).

Population and Sample

The target of population in this research is all of the students in tenth grade of SMA Paradigma Kabupaten Tangerang in academic 2020/2021. The total population of the tenth grade is 175 students of 5 classes. In this research, simple random sampling was used as the sampling method, because according to Sugiyono (2011) the sampling of members of the population is carried out randomly without paying attention to the strata in the population. According to Arikunto (2010) if the subject is large or more than 100 people can be taken 10-15% or 20-25% or more. So the writer was selected 23% of the total population of 40 students as a sample, 8 students from each class. According to Djuhana (1988) sampling by lottery will give impartial or fair results because everyone has the same opportunity to be the sample. The sample has been chosen by lottery, the absent number comes out then they is the sample.

Technique of Collecting Data

The questionnaire technique was used to collect data for the study. The writer administers a reading interest questionnaire to students and evaluates the results, while the writer administers a vocabulary mastery and reading comprehension test and evaluates the result. Finally, the writer determines whether or not there is a correlation between them.

Questionnaire

According to Marczyk (2005) the questionnaire is commonly used and is valuable tool for gathering survey information, providing structured, often numerical data and being reasonably straight forward for research. The writer used the Likert scale, the Likert scale consist of five points, and the points are; strongly happy , happy, indifferent, unhappy, and strongly unhappy. The questionnaire how to rate is as follows:

Table 1. The Scale of Questionnaire of Students' Reading Interest

No.	Positive Statement	Scores
1.	Strongly Happy / Always	5
2.	Happy / Often	4
3.	Indifferent / Seldom	3

4.	Unhappy / Almost Never	2
5.	Strongly Unhappy / Never	1

Test

As Brown (2004) defines test as a method of measuring person ability, performance, or knowledge in a given domain. As a method, a set of technique, procedures, or items requires performance on the part of the test taker. Testing has been used to know the students progress, whether it is suitable for students or not, ect.

The first test is vocabulary mastery is multiple choice. The total items consist of 20 items. There are four alternatives to the answer, consisting of the correct answer and three destructors. For each question, namely; a, b, c, and d. The writer marks 1 for each right answer to decide the student's score and 0 for each incorrect answer.

The second test is a multiple choice type of reading comprehension. There are 25 items in the overall reading comprehensuon test. For each question, there will be 4 optional answer, namely; a, b, c, and d. The writer marks 1 for each correct answer to decide the student's score and 0 for each incorrect answer.

Test of Validity and Reliability Instrument

Validity

Arikunto (2014) states, validity is a measure that shows the levels of validity or originality of an instrument. The research had been using questionnaire to measure students' reading interest to know the instrument valid or not, the writer carried out the instrument to 30 respondents using content validity test. The basic for descision making in this validity test is if the value of sig. (2-tailed) < 0,05 and the Pearson correlation is positive, then the item or questionnaire is declared valid. The writer has validated each item using SPSS, for each instrument both questionnaires and tests, the writer make slightly more items than are invalid items, they are discarded.

Reability

According to Arikunto (2014), reliability refer to an instrument there is reliable enough to be used a data collection tool because instrument is correct. After the instrument of research valid, the data of instrument need to test realiability. The writer has calculated the reability test using SPSS 22. All items are declared reliable if *Cronbach Alpha* value is more than 0.60 then the questionnaire or all items are declared reliable or consistent and if *Cronbach Alpha* value is less than 0.60 then the questionnaire or all items are declared unreliable or inconsistent. The writer was used the *Cronbach Alpha* formula to test the reability instrument with the following formula :

$$r_i = \left(\frac{k}{k-1} \right) \left(1 - \frac{\sum si^2}{\sum st^2} \right) \dots \dots \dots \text{Source : (Sugiyono, 2011)}$$

Explanation:

- r_i : Reliability of instrument
- $\sum si^2$: Total score of variable
- si^2 : The total of variant
- k : Amount of item

Testing of Analysis Assumption

The test analysis assumption used to conducted the test of statistical data or analysis data. The writer considers conducting test normality and test linearity as testing of analysis assumption. The following are the testing of analysis assumption that had been using in this research:

Normality

The normality test is a test conducted to determine whether the data to be analyzed is normally distributed or not, and to test the normality of the data used the Kolomogorov-Smirnov formula, the formula is as follows:

Where:

- KD = Total of Kolmogorov-Smirnov
- n1 = The expected frequency
- n2 = The observed frequency

(Sugiyono, 2013:257)

The data can be said to be normal, if the significant value is greater than 0,05 at (P > 0,05), then the data is said to be normal.

Linearity

Linearity test aims to determine whether the two variables significantly have a linear relationship or not. The writer calculated the linearity test using SPSS 22. To find out the linearity regression, the formula is as follow:

$$F_{reg} = \frac{RK_{reg}}{RK_{res}} \dots \dots \dots$$

Source : (Usman, 2015)

Explanation:

- F_{reg} : Value number F regretion
- RK_{reg} : Average quadratic regrestion
- RK_{res} : Average quaddratic residu (Usman, 2015, p.220)

Analysis Multiple Correlation

Multiple correlation used in SPSS 22. A number that represents the direction and strength of the correlation between two or more variables and the dependent variable is known as multiple correlation. If the probability value of 0,05 is less than or equal to the probability value of sig. F change, the correlation between variables X and Y is not significant. In addition, here the formula of multiple correlations:

$$R = \frac{r^2_{xy1} + r^2_{yx2} - 2r_{yx1}.r_{xy2}.r_{x1x2}}{1 - r^2_{x1x2}} \dots \dots \dots$$

Explanation:

- r_{yx1} : Correlation coefficient for y and x^1
- r_{yx2} : Correlation coefficient for y and x^2
- r_{x1x2} : Correlation coefficient for x^1 and x^2
- a : Constant

Here, score interpretation as presented by Sugiono (2007) in the following table:

Table 2. Table of “r” Score Interpretation

No.	The “r” score	Interpretation
1.	0.80-1.00	Very High
2.	0.60-0.799	High
3.	0.40-0.599	Moderate
4.	0.20-0.399	Low
5.	0.00-0.199	Very Low

The Statistical Hypotheses

Partial Hypotheses

a. Students' Reading Interest

Ho : $p = 0$ » There is no positive significant correlation between students' reading interest and students' reading comprehension at tenth grade of SMA Paradigma Kabupaten Tangerang.

Ho : $p \neq 0$ » There is positive significant correlation between students' reading interest and students' reading comprehension at tenth grade of SMA Paradigma Kabupaten Tangerang.

b. Students' Vocabulary Mastery

Ho : $p = 0$ » There is no positive significant correlation between students' vocabulary mastery and students' reading comprehension at tenth grade of SMA Paradigma Kabupaten Tangerang.

Ho : $p \neq 0$ » There is positive significant correlation between students' vocabulary mastery and students' reading comprehension at tenth grade of SMA Paradigma Kabupaten Tangerang.

To test the partial hypotheses it can be tested using the t-test with the following formula:

$$t = \frac{\hat{p}}{\text{Standar Error } \hat{p}} \dots \dots \dots (3. 1)$$

Where :

\hat{p} = Coefficient of Regression

Determining of Statistical Hypotheses

Based on the formulation of the writer problems and research hypotheses, the statistical hypotheses was tested in this research as follow:

a. Ho : $p = 0$ » There is no positive correlation of students' reading interest, vocabulary mastery and their reading comprehension at tenth grade of SMA Paradigma Kabupaten Tangerang in Academic Year 2020/2021.

b. Ho : $p \neq 0$ » There is positive correlation of students' reading interest, vocabulary mastery and their reading comprehension at tenth grade of SMA Paradigma Kabupaten Tangerang in Academic Year 2020/2021.

RESULT AND DISCUSSION

To find out the correlation between students' reading interest, vocabulary mastery and their reading comprehension, the writer used SPSS 22 to process the data. The writer presents the maximum score, minimum score, mean score, standard deviation, and variance score. The data is as follows:

Table 3. Descriptive Statistics

	N	Range	Min	Max	Sum	Mean	Std. Derivation	Variance
Reading Interest	40	93	70	163	4197	104,93	18,063	326,276
Vocabulary Mastery	40	75	15	90	2096	52,40	25,194	634,759
Reading Comprehension	40	68	8	76	1456	36,40	16,500	272,246
Valid N (listwise)	40							

Based on the table, it shows the answers from students' reading interest with the highest score of 163 and the lowest score of 70 with an average of 18,063. For students'

vocabulary mastery the higher score is 90 and the lowest score is 15 with the average 25,194. For students' reading comprehension, the higher score is 76 and the lowest score is 8 with the average 16,500.

To analyze the data about normality, the writer used SPSS 22. In this research in order to know whether the students' reading interest, vocabulary mastery and their reading comprehension came from the distributed normal population with the significant value is higher than 0,05. The result of the test normality can be seen at the table below:

Table 4. Test of Normality

	Kolmogorov-Smirnov ^a		
	Statistic	Df	Sig.
Students' reading interest	,126	40	,112
Students' vocabulary mastery	,167	40	,007
Students' reading comprehension	,235	40	,007

Based on the result of data normality test above, it was obtained the significance value of students' reading interest is 0,112. The significance value of students' reading interest is $> 0,05$ ($0,112 > 0,05$). The value of students' vocabulary mastery is higher than 0,05 ($0,07 > 0,05$), and the significance value of students' reading comprehension is also higher than 0,05 ($0,07 > 0,05$). It can be concluded that H_0 is accepted, so the data is normally distributed. In other word, the process of statistical calculation can be continued.

Table 5. Result of Students' Reading Interest on Students' Reading Comprehension

			ANOVA Table				
			Sum of Squares	Df	Mean Square	F	Sig.
Students' Reading Comprehension* from Students' Reading Interest	Between Groups	(Combined)	8710,933	28	311,105	1,795	,154
		Linearity	268,731	1	268,731	1,550	,239
		Deviation from Linearity	8442,202	27	312,674	1,804	,152
	Within Groups		1906,667	11	173,333		
	Total		10617,600	39			

From the table above, it can be seen that students' reading interest and their reading comprehension test has linear regression because the table above shows that the significant of derivation from linearity is higher than 0,05 ($0,152 > 0,05$).

Table 6. Result of Linearity Students' Vocabulary Matery on Students' Reading Comprehension

			ANOVA Table				
			Sum of Squares	Df	Mean Square	F	Sig.
Students' Reading Comprehension* from Students' Vocabulary Mastery	Between Groups	(Combined)	3924,267	14	280,305	1,047	,444
		Linearity	1369,025	1	1369,025	5,113	,033
		Deviation from	2555,242	13	196,557	,734	,715

Linearity				
Within Groups	6693,333	25	267,733	
Total	10617,60	39		
	0			

From the table above, the significant of deviation from linearity is higher than 0,05 ($0,715 > 0,05$). It can be concluded between students' vocabulary mastery and their reading comprehension is linear.

Table 7. Result of Multiple Correlation

Model Summary ^b									
Change Statistics									
Model	R	Adjusted R Square	Std Error of the Estimate	R Square Change	F Change	df1	df2	Sig. Change	f
1	,49	,248	14,695	,248	6,086	2	37	,005	
a. Predictors: (Constant), Students' Reading Interest, Students' Vocabulary Mastery									
b. Dependent: Students' Reading Comprehension									

Based on statistical calculations, the result of students' reading interest and vocabulary mastery on their reading comprehension with a significance value of 0,005 ($0,005 < 0,05$), thus this study succeeded in proving the third is a positive simultaneous correlation between students' reading interest, vocabulary mastery and their reading comprehension at tenth grade of SMA Paradigma Kabupaten Tangerang.

Based on the result of interview with English teacher at SMA Paradigma Kabupaten Tangerang, it was stated that here were still students who had medium interest in reading and vocabulary mastery, this could be seen during the teaching and learning process of Diction, which was ineffective, causing students to have difficulties understanding the contents of the reading given by the teacher. Based on the findings of data analysis and statements from one of the teachers, it is possible to demonstrate that there is a correlation between students' reading interest, vocabulary mastery and their reading comprehension.

Table 8. Result of Hypotheses Partial

		Coefficients ^a			
Model		Unstandardized Coefficients B	Standardized Coefficients Beta	T	Sig.
1	(Constant)	5,721		,359	,721
	Students' Vocabulary Mastery	,244	,099	,373	,018
	Students' Reading Interest	,171	,138	,187	,223

a. Dependent Variable: Students' Reading Comprehension

Students' Reading Interest

Based on the result of statistical calculations, the result of the variable students' reading interest is 1,238, it means $t_{count} < t_{table}$ ($1,238 < 1,687$) and there is no positive significant correlation between students' reading interest and their reading comprehension, or H_0 accepted and H_a rejected. The previous research also concluded that reading interest is not a factor that can influence reading comprehension

(Risdianti, 2020). Thus, it does not matter whether students' reading interest is high or low, it does not even mean anything if students are influenced by attention, time use, motivation and effort in their reading comprehension, because the difference between the aspects of their reading interest does not result in a difference in their reading comprehension score. The reader's comprehension of the issue, linguistic structure, text structure and genre, cognitive and metacognitive methods, motivation and level of involvement all influence their reading comprehension. It is possible that students were not fully engaged during the text, or that they were not motivated to take the test.

Students' Vocabulary Mastery

Based on statistical calculations, the result of the variable students' vocabulary mastery is 2,473, which means $t_{\text{count}} > t_{\text{table}}$ ($2,473 > 1,687$) and H_0 is rejected and H_a is accepted. Thus, this study succeeded in proving the second hypothesis which that there is a positive significant correlation between students' vocabulary mastery and their reading comprehension at tenth grade of SMA Paradigma Kabupaten Tangerang.

Vocabulary becomes a very important aspect because all aspect of language will constantly need vocabulary. The master of vocabulary is an important part of language. Aspect of meaning, synonyms, antonyms, and guesses are the vocabulary aspect discussed in this study. Vocabulary mastery is the foundation for someone who is good at reading. To become proficient in the language, the student must have a large vocabulary. This clearly shows that students' vocabulary mastery and their reading comprehension are correlated. Reading comprehension is built on the foundation of vocabulary mastery.

CONCLUSION

Based on the research about the correlation between students' reading interest, vocabulary mastery and their reading comprehension at tenth grade of SMA Paradigma Kabupaten Tangerang in academic year 2020/2021 it can be concluded :

1. There is no positive significant correlation between students' reading interest and their reading comprehension at tenth grade of SMA Paradigma Kabupaten Tangerang in academic year 2020/2021. It can be concluded that students' reading interest is not a factor that influences their reading comprehension and their level of reading interest has no impact on their reading comprehension.
2. There is positive significant correlation between students' vocabulary mastery and their reading comprehension at tenth grade of SMA Paradigma Kabupaten Tangerang in academic year 2020/2021. It can be concluded this vocabulary mastery is expected to help students to absorb all the information contained in the reading, making it easier to understand the meaning and content of the text and variable vocabulary mastery has a dominant role in changes in students' reading comprehension.

There is a positive simultaneous correlation between students' reading interest, vocabulary mastery and their reading comprehension at tenth grade of SMA Paradigma Kabupaten Tangerang in academic year 2020/2021. It can be concluded that the greater the interest in reading, the greater their vocabulary mastery, and automatically students will have a good reading comprehension.

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