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# The Correlation between Students' Reading Speed and Their Reading Comprehension in Descriptive Text

Risnawati Dewi[1], Agus Mulyana[2], Hery Nuraini[3*], Purnawati[4]
[1,2,3,4]English Language Education Faculty of Teacher Training and Education of Universitas Islam Syekh-Yusuf Tangerang

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Corresponding e-mail:
*)hnuraini@unis.ac.id

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**Abstract**

*The purpose of the research is to find out the correlation between students' reading speed and their reading comprehension of descriptive text among the tenth-grade students of SMAN 14 Kabupaten Tangerang in the academic year 2018/2019. The population of this research is the whole students in tenth grade at SMAN 14 Kabupaten Tangerang. The writers chose 73 students as the sample of this research by using simple random sampling. In this research, the writers applied principles of the quantitative method with correlation form. The data was collected by using Reading Speed as variable X and Reading Comprehension as variable Y. The data is analyzed by using Pearson correlate and the result of it is 0.398. It means the result of r-xy (0.398) is higher than the r-table (0.329). So it can be concluded that there is a positive correlation between students' reading speed and their reading comprehension among tenth-grade students of SMAN 14 Kabupaten Tangerang in academic years 2018/2019.*

## INTRODUCTION

Language serves as an important tool in communication in society because it can transfer ideas, opinions, messages, emotions, thoughts, feelings, and desires. English, especially, enables you to stay connected with many people in the world and keeps you updated with the latest news in various areas of study. As a foreign or a second language, English in Indonesia is not commonly used in daily life but it is used (to some extent) in the teaching and learning process in classroom activities starting from kindergarten to the university level. However, the teaching of the four skills (listening, speaking, reading, and writing) still becomes an issue in language learning because even

though someone has gone through more than 12 years learning the language, it does not seem enough to make him/her capable to do those skills well.

## A. Reading

To comprehend a text, students should understand the meaning of the words, phrases, and sentences so that they can get the information or grasp the messages written in the texts they are reading. By doing so, the reading text can provide them with a lot of knowledge, pleasure, and life hacks. According to Orlich, Harder, Callahan, & Brown (2010), the purpose of reading is to learn new information (pedagogical purposes), perform a task (social and transactional purposes), and help with career applications (work-related purposes). Reading literature in a variety of genres might be related to study purposes or simply for pleasure. Furthermore, reading also provides opportunities to study languages such as vocabulary, grammar, punctuation, sentence, paragraph, and text.

There are numerous kinds of reading activities, but based on the purposes of reading, Gilakjani (2016) classified them into intensive and extensive reading. Intensive reading is a kind of reading in which the purpose is to comprehend the whole passage. Yang et.al. in Gilakjani (2016) says that intensive reading is very important for learning vocabulary, understanding how text is formed, and developing reading comprehension. On the other hand, extensive reading is the kind of reading that leads the readers to read the text with pleasure. Gilakjani (2016) says that extensive reading helps learners to gain independence through reading either in class or at home. It allows the readers to comprehend the text without the need to read the whole chapter and every part of the book. Extensive reading is used to gain a deep understanding of a text by finding the specific information written in the text.

## B. Reading Speed

Reading speed is reading a text faster than the normal reading speed with good comprehension. Konstant (2010) argues that speed reading is not only about reading fast, but it is also about getting information more quickly. It means that developing this skill does not mean the reader has to read fast all the time, finishing a text as quickly as possible. Reading speed requires the ability to manage some techniques to increase reading comprehension in a very limited time. A similar idea is also proposed by Wainwrigh (2007) referring to reading faster without loss of comprehension, skimming and studying effectively, and of course reading critically. Based on that statement, some techniques must be practiced while trying to rapidly read a text and comprehend the content better. Sackstein and Spark (2015) classify types of readers based on their speed into three: good, fair, and slow readers. They state that readers of different reading speeds get fairly different numbers of words per minute and the discrepancy can reach up to 100 words per minute between one type to another closer type. Good readers read 350 words per minute, fair readers achieve 250 words at the same time, and slow readers attain 150 words per minute.

Concentration becomes one of the factors that affect the speed of reading. Wainwright (2007) said that good concentration can train readers how to exclude distractions. According to Konstant (2010), some factors that affect reading speed are clarity of purpose, mood, and motivation to read, familiarity with the subject-relate terminology, difficulties of the text, and urgency and stress level.

It means that if a reader does not set any specific reading purpose, he or she tends to read more slowly compared to those who know what they aim at in reading the text. Another reading challenge is that students cannot read fast because they often read a text word by word; they murmur every word they find. For example, they use their index finger to point to the word in every line and this habit prevents them from being good readers.

To cope with the above challenges, readers need to understand various reading strategies and be able to decide the best one that fits their reading needs. For example, Wilhelm, et.al. in Whiteley (2007) mentions that scanning and skimming can be good strategies to speed up our reading, while careful reading which involves reading slowly and paying attention with a purpose in mind is suitable when you are learning new concepts, following complicated directions, or preparing to explain information to someone else. Harmer (1998) mentions more varied reading skills such as fast reading, skimming, scanning, making a prediction (predicting), reading for detailed information, reading between the lines, deducting meaning from context, and referencing that readers can opt for in accordance with what they aim at.

According to the explanation above, it can be concluded that there are various techniques in order to improve someone's ability in speed reading and the suitable choice depends on the purpose of reading itself. It means that people usually adjust their reading techniques to what they want to reach afterward.

## C. Reading Comprehension

Westwood (2008) says reading comprehension can be defined as an active thinking process in understanding the concepts and information that are present in a text. Thus, the process enables someone to identify the information, understand the meaning, and be aware of the purpose of the writer in order to understand the content of the text. Reading comprehension is an essential skill a Student should have in learning any field of study, not only in language learning but also in learning other social and science studies. Brown (2000) mentions some principal strategies in reading comprehension. They are: purpose, spelling rules and conventions, rapid processing, skimming, scanning, semantic mapping, guessing meaning, vocabulary, distinguishing between literal and implied meanings, and capitalizing on discourse markers.

In short, even though comprehending a text, especially in a limited length of time, is rather hard to do, a reader will always have a strategy to choose to make things easier. This skill may not come easily because it requires regular practice to develop a good sense of reading to switch from one strategy to another in order to comprehend a text at a glance.

## D. Descriptive Text

A descriptive text aims to describe what a person, place, or thing is like, especially the particular characteristics that differentiate it from others in a similar category Puguh in Kartawijaya (2017). It is structured in two parts: identification and description. The identification is located at the beginning of the text, either in the first sentence or the first paragraph, and is used to introduce to the reader the phenomenon that describes. The next part is the description that elaborates on the details, explaining the parts, qualities, and characteristics of the person, place, or thing (Muis, Zainil & Radjab, 2013). Mabruroh in Kartawijaya (2017) adds that attributive and identifying processes,

adjectives and classifiers in the nominal group, and the simple present tense are some common specific language features in a descriptive text. It is because the text is explaining a fact or activity that happens in daily life and habit.

Descriptive text is a type of genre that students in Indonesia learn quite often. This text can be easily found in the learning materials from elementary levels to university levels, not only in English subjects but also in other subjects. Therefore, the writers are interested to find whether this circumstance has a certain impact on the student's speed in reading an English text. In specific, the writers try to investigate the relationship between students' speed in reading English descriptive texts and their comprehension.

## RESEARCH METHOD

In this research, the writers applied principles of the quantitative method with descriptive correlational form. Arikunto (2017) argues descriptive correlational is research that is conducted by the researcher to know the connection level between two variables or more, without doing change, adding, or manipulating data. The aim is to know the correlation between two variables: students' reading speed and students' reading comprehension of descriptive text.

The writers use a principal quantitative method to do this study. According to Fraenkel and Wallen (2009), "Quantitative data deal primarily with numbers". It means the data that produce the number. In this quantitative research, the writers will find out the relationships between variables. They are variable X (students' reading speed) and variable Y (students' reading comprehension). The correlation is calculated by using Pearson product-moment correlation.

The population of this research is the tenth-grade students of SMAN 14 Kabupaten Tangerang in the academic year 2017/2018. There are eight classes: four science classes, three social classes, and one BBI class. The total number of tenth-grade students of SMAN 14 Kabupaten Tangerang is 258 students. According to Sugiyono (2017), the population is a generalization area that is composed of the object or subject that has certain qualities and characteristics that are determined by the writers to study and then conclude. In this research, the writers use simple random sampling. Based on Sugiyono (2017) simple random can be done by the lottery, choosing a number of lists randomly, etc. This way can be done if the members of the population are homogeneous. Based on the calculations, the writers took 73 samples.

The writers used two tests identified as Variable X and Variable Y. The first is testing students' reading speed with the reading time. In this test, students were asked to do the rapid reading and find out their reading rate. The writers use the stopwatch to give time to students. The second is testing students' comprehension, students did the task of comprehension questions after finishing practicing reading speed and they are asked to answer the reading comprehension test related to the text they read before. Both reading speed score and comprehension score integrate and the final score would be an effective reading rate. After getting the result, the writers found out whether or not there is a correlation between students' reading speed and their reading comprehension.

The validity test in this research uses a correlated level. This uses significance level = 0,05 coefficient correlate that gained of result counting the equivalent value of table correlate r value

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STAIRS
English Language Education Journal

with a degree of freedom (n-2), where n explains the total number of respondents. If $_{count} > r_{0,05}$ it says valid, on the other hand, if $_{count}t < r_{0,05}$ it says not valid. Checking the validity helps show test accuracy and decide if the instrument is capable to collect the data or not (Arikunto, 2015). Based on the statistical calculation of the 15 items seen in the table below, there were only 10 valid items. The remaining 5 items were invalid. The valid items are numbers 2, 4, 5, 6, 7, 8, 9, 11, 12, and 13. So, this research will only give the 10 valid items to the participants.

| Variable | Total item | | Correlate coefficient |
|---|---|---|---|
| | Instrument | Valid | |
| Reading comprehension | 15 | 10 | **0,676** 0,008<br>**0,058** 0,007 0,015<br>0,020 0,037<br>0,020 0,013 **0,051**<br>0,000 0,000 0,001<br>**0,070** **0,050** |

*Table 1. The Results of the Validity Test*

Meanwhile, to measure reliability, the writes refers to Walizer (1987), as he claimed that reliability measures constancy. So, the writers used Cronbach Alpha to test the reliability of the instrument. Using SPSS 22 version can measure reliability test statistic Cronbach Alpha. It says reliable if the result of Cronbach Alpha value > 0,60. The reliability was done by using Cronbach Alpha analysis with Microsoft Office Excel and SPSS 22 version. The instrument would be reliable if the value of variable reading speed (X) and reading comprehension (Y) with value 0,697 > 0,60. It can be concluded that all instruments were reliable and fair to use as an instrument for collecting data in this research.

To calculate the score of the test of normality, the writers used chi-quadrate to test the normality of the instrument. The test of linearity is used to analyze whether the relationship between the independent and dependent variables is linear or not. The writers use the table computation of IBM SPSS Statistic version 22 for windows to find out the linearity of the test. The result of linearity can see in the ANOVA table. If the percentage is significant < 0,05 so data is not linear If the percentage is significant > 0,05 so data is linear.

The research is to find out the correlation between the students' reading speed and their reading comprehension. The writers used the correlation formula by Pearson Correlate to know the correlation between two variables, namely: reading speed and reading comprehension. This uses significance level = 0,05 coefficient correlate that gained of result counting the equivalent value of table correlate r value with a degree of freedom (n-2), where n explains the total number of respondents. If r $_{count}$ > 0,05 it says valid, on the other hand, if r count < 0,05 it says not valid. Meanwhile, coefficient determination (R Square/$R^{2)}$ means the accuracy level more right in regression analysis. In addition, a coefficient determination is used to know the percentage change of the independent variable (Y) in doing by the dependent variable (X).

e-ISSN: 2807-8594

STAIRS
English Language Education Journal

## RESULTS AND DISCUSSION

The writers separated the data into two parts, the first part is the result of reading speed as variable X which consists of one text given to students. The testing reading speed with time was conducted by asking students to do the rapid reading and find out their reading rate. The writers gather the data from reading speed, the writers used a stopwatch to measure their speed in reading a text. The second is the result of reading comprehension as variable Y. The writers used short answer tasks to test their reading comprehension. There are ten questions were selected by the writer. The students get a high score (100) if their answer is totally right. The writers used this data to calculate the correlation between variables X and Y of this research.

### A. Variable X ( Reading Speed)

The writers gave a reading speed test to get a score on reading speed. The total result of students reading speed of tenth-grade students at SMAN 14 Kabupaten Tangerang is 806406 with a maximum score is 806406 score maximum is 21648 and a minimum is 4590 from this result the writers got a mean is 11046,66, a median is 10944,00, modus is 8772 and the standard deviation is 3319,382.

| Statistics | | |
|---|---|---|
| | | Reading Speed |
| N | Valid | 73 |
| | Missing | 0 |
| Mean | | 11046,66 |
| Median | | 10944,00 |
| Mode | | 8772[a] |
| Std. Deviation | | 3319,382 |
| Minimum | | 4590 |
| Maximum | | 21648 |
| Sum | | 806406 |
| Percentiles | 25 | 8823,00 |
| | 50 | 10944,00 |
| | 75 | 12891,00 |

a. Multiple modes exist. The smallest value is shown

*Table 2. Descriptive Statistic of Variable X*

### B. Variable Y ( Reading Comprehension)

The writers gave reading comprehension tests to get a score in reading comprehension. The total result of students reading speed of tenth-grade students at SMAN 14 Kabupaten Tangerang is 5768 with a score maximum is 98 and a minimum is 50 from this total the writers got a mean is 79,01, a median is 82,00, a modus is 82 and the standard deviation is 11,035.

| Statistics | | |
|---|---|---|
| Reading Comprehension | | |
| N | Valid | 73 |
| | Missing | 0 |

e-ISSN: 2807-8594

STAIRS
English Language Education Journal

| | | |
|---|---|---|
| Mean | | 79,01 |
| Median | | 82,00 |
| Mode | | 82 |
| Std. Deviation | | 11,035 |
| Minimum | | 50 |
| Maximum | | 98 |
| Sum | | 5768 |
| Percentiles | 25 | 74,50 |
| | 50 | 82,00 |
| | 75 | 86,00 |

*Table 3. Descriptive Statistic of variable Y*

## C. The Test of the Analysis Assumptions

In testing normality data, the writers used the chi-square formula to know the normality distribution of data by using SPSS version 22 which criteria: if the significance of chi-square < 0,05 the data is not normally distributed. The result of the test normality of both variables can be seen in the table below:

**Chi-Square Tests**

| | Value | Df | Asymptotic Significance (2-sided) |
|---|---|---|---|
| Pearson Chi-Square | 2263,000[a] | 1922 | ,000 |
| Likelihood Ratio | 464,877 | 1922 | 1,000 |
| Linear-by-Linear Association | 11,407 | 1 | ,001 |
| N of Valid Cases | 73 | | |

a. 2016 cells (100,0%) have an expected count of less than 5. The minimum expected count is,01.

*Table 4. Test of Normality*

Based on the table above, it can be seen that the score of Chi-Square is 0,000 the score is less than 0,05. It means that the result of the chi-square is significant or normally distributed.

The writers used the criteria to test the Linearity of data if the significance of deviation from linearity score > 0,05. So, the correlation between the two variables was linear. After conducting the test of linearity using the ANOVA table, it was obtained that the significance of deviation from linearity was 0,000. The complete result of the test can be checked in the following table.

**ANOVA Table**

| | | | Sum of Squares | Df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|---|
| Reading Speed * Reading Comprehension | Between Groups | (Combined) | 483056986,000 | 31 | 15582483,420 | 2,059 | ,015 |
| | | Linearity | 125688173,900 | 1 | 125688173,900 | 16,609 | ,000 |
| | | Deviation from Linearity | 357368812,100 | 30 | 11912293,740 | 1,574 | ,088 |
| | Within Groups | | 310260582,500 | 41 | 7567331,279 | | |
| | Total | | 793317568,400 | 72 | | | |

*Table 5. Test of Linearity*

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STAIRS
English Language Education Journal

The table above showed the significance of deviation from linearity score > 0,05 (0,088 > 0,05). Therefore, it can be concluded that the correlation between students' reading speed and their reading comprehension in the descriptive text was linear.

## D. Data Analysis

From the result of the correlation test using SPSS version 22 for window, it was obtained the coefficient of correlation which has shown in the following table.

**Correlations**

| | | Reading Comprehension | Reading Speed |
|---|---|---|---|
| Reading Comprehension | Pearson Correlation | 1 | ,398** |
| | Sig. (2-tailed) | | ,000 |
| | N | 73 | 73 |
| Reading Speed | Pearson Correlation | ,398** | 1 |
| | Sig. (2-tailed) | ,000 | |
| | N | 73 | 73 |

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

*Table 6. Coefficient of Correlation*

The table above showed that the score of r = 0,398. If it was checked in the table of interpretation of correlation value between students' reading speed and their reading comprehension in descriptive text, the two variables have a fair correlation. The positive value indicated that the correlation was linear. The table above also showed the value of significance probability 0,000. If it was compared with a = 0,05 so the value of significant 0,000 < 0,05. It means that there was a significant correlation between students' reading speed and their reading comprehension in descriptive text.

From the result of the correlation test using SPSS 22 for windows. It was obtained the coefficient of determination which was shown in the following table.

**Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | ,398[a] | ,158 | ,147 | 10,194 |

a. Predictors: (Constant), Reading Speed

b. Dependent Variable: Reading Comprehension

*Table 7. Coefficient of Determination*

From the table above, it was obtained the value of the coefficient of determination (R Square/R2) = 0,158 or 15,8 %. It showed students' reading speed and their reading comprehension in descriptive text. While the remaining which was 84,2% influenced by another factor that was not discussed in this research.

The hypotheses of this research are: Is there any correlation between students' reading speed and their reading comprehension of descriptive text in the tenth grade of SMAN 14 Kabupaten Tangerang in the academic year 2018/2019? It can be formulated statistically as follow:

1. H0: p = 0
2. Ha : : p ≠ 0

To know the correlation between students' reading speed and their reading comprehension of descriptive text was used Pearson correlation. From the analysis result, it was obtained that the coefficient of correlation (r) was 0,398 and the coefficient of determination ($r^2$) was 15,8%. It means that reading speed and reading comprehension in the descriptive text has a fair correlation.

Based on the hypotheses above, it was known that the coefficient of correlation between students' reading speed and their reading comprehension of descriptive text was 0,398. It showed that there is a significant correlation between the two variables. While the coefficient of determination ($r^2$) is 15,8 %. It showed students' reading speed and their reading comprehension of descriptive text. While the remaining which was 84,2 % influenced by another factor that was not discussed in this research.

## CONCLUSION AND RECOMMENDATION

Based on the result of the research analysis, showed that the result of correlation by using the Pearson Correlate formula is r = 0,398. It means that there is a significant correlation between students' reading speed and their reading comprehension of descriptive text in the tenth grade of SMAN 14 Kabupaten Tangerang in the academic year 2018/2019. The coefficient of correlation score of r = 0,398. It showed that there is a significant correlation between the two variables. While the coefficient of determination score of ($r^2$) is 15,8 %. It showed that students' reading speed was influenced by their reading comprehension of descriptive text. While the remaining which was 84,2 % influenced by another factor that was not discussed in this research.

Based on the finding above, it can be concluded that reading speed influences students' reading comprehension. It means that there is a significant correlation between students' reading speed and their reading comprehension of descriptive text in the tenth grade of SMAN 14 Kabupaten Tangerang in the academic year 2018/2019. Having the result, the writers recommended students improve their reading speed to support their reading comprehension.

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