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by Ayu Antini

THE CORRELATION BETWEEN STUDENTS READING SPEED AND THEIR READING COMPREHENSION OF THE TENTH-GRADE STUDENTS OF SMA NEGERI 10 DENPASAR IN THE ACADEMIC YEAR 2022-2023

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Abstract: Reading is an important language skill for success because it influences how children learn from written information; children must comprehend the content they read at the appropriate reading speed to study reading speed. Reading quicker allows one to absorb better what is being stated in the text; hence, the faster they read, the better they grasp what they have read. This study aimed to find a significant relationship between reading speed and reading comprehension among tenth-grade students at SMA Negeri 10 Denpasar in the academic year 2022-2023. The researcher acquired data for this study using a correlational investigation. The subjects of this research were 40 students in the tenth grade at SMA Negeri 10 Denpasar in the academic year 2022–2023. The researcher collected data using two instruments: a reading speed test and a reading comprehension exam. Furthermore, the study equipment was designed to obtain the necessary data. The SPSS 25.0 version for Windows was used to analyze the data, which included the normality test, homogeneity test, Pearson product moment, and T-test.

Keywords: reading, reading speed, reading comprehension.

INTRODUCTION

There are four talents in English: speaking, writing, listening and reading. Listening and reading are receptive talents, but speaking and writing are productive abilities. Reading is one of the four talents that should be taught since it is so important. Reading is an essential skill that serves as the foundation for future learning. If children cannot read and comprehend what they read, they may have difficulty in the following years when more and more learning resources are made available in written English. According to [5], reading is a message-receiving and problem-solving activity that improves power and flexibility, and it may be more so in practice. It means that pupils can read and learn information from any written language. Reading is a skill that may be used in many elements of a student's life. Reading will help children understand language more readily. Reading teaches children how to locate every message in a text. Reading teaches students to think. As a result, it is an effective method for learning about new concepts, facts, and experiences.

Everyone reads at their own rate, which might be fast or slow. Reading speed, also known as the rate of reading, is the rate at which a person reads, according to [2]. The speed

specifies how many words per minute may be read. Reading speed is classified into five categories, according to [7]: poor, normal, good, extraordinary, and amazing. Total words were divided by reading time to calculate reading rates. "How fast someone reads depends on their drive, attention, and word recognition," according to [8]. That is, some incentive will make you want to read anything, increase your interest in the topic, and keep you reading in a pleasant mood. Then, focusing helps gain attention when reading by assisting the reader in avoiding distracting circumstances. Both of these situations will only work if the readers recognize the phrase. When reading, word recognition removes the need for readers to spell familiar terms, which is critical for understanding. To obtain a decent reading rate, all three characteristics must be satisfied.

Reading comprehension is defined as the ability to "present" an overall understanding of the text by providing inferential and literal information, drawing conclusions, and making connections to one's own experience. Reading slowly and excessively, according to [9], impedes understanding of the text. As a result, delayed reading hinders performance. However, if someone reads rapidly, they will soon understand what they are reading. When readers must repeat what they read, there will be repetition, especially if they read slowly. It takes time, and their minds are no longer concentrated. Reading speed is the rate at which you comprehend the material. While reading comprehension is mainly concerned with the level of knowledge of the material, everyone's ability to read for understanding varies so there is some categorization score in the reading comprehension to know pupils' reading comprehension degree.

Therefore, Widiastutik (2022) research organized a study named "The Correlation Between Reading Speed and Students' Reading Comprehension at the Eleventh Grade Students of SMK PGRI 3 Badung In Academic Year 2020-2021". This study's hypothesis testing resulted in an r-value greater than $0.413 = 0.806 > 0.413$. The outcome determined whether or not the association between reading speed and pupils' reading comprehension was substantial. It signifies that the alternative hypothesis (H_a) is accepted and the null hypothesis (Ho) is rejected.

The second study, "The Effect of Using Speed Reading Technique on Students' Ability to Comprehend a Text," was undertaken by Sirait (2020). The quantitative research design was adopted in this study. This study's demographic comprises tenth-grade students from SMAN 4 Pematangsiantar in the 2019-2020 academic year. After analyzing the data, the researchers concluded that the speed reading approach significantly impacted the student's capacity to grasp a book. It was discovered that t-test > t-table $(1, 96 > 1, 67)$. Using a rapid reading strategy to improve pupils' comprehension of the material is very beneficial.

About the theory and the previous research result, the writer was interested in investigating whether there was any correlation between students reading speed and their reading comprehension in the writer context, the X-grade students at SMA Negeri 10 Denpasar in academic years 2022-2023. The main question of this research is, "Is there a significant correlation between students reading speed and their reading comprehension at the X-grade students in SMA Negeri 10 Denpasar?"

In addition, this study will determine whether or not there is a substantial relationship between pupils' reading speed and understanding. In this study, the researcher did not investigate the underlying causes of what was causing the reading speed and reading comprehension to be low or high. The researcher did not investigate the underlying causes of what was causing the reading speed and reading comprehension to be low or high. This study only looks at the relationship between students' reading speed and their reading comprehension.

This study will be undertaken among tenth-grade students at SMA Negeri 10 Denpasar during the academic year 2022–2023.

METHOD

To establish the general framework of the current inquiry, the researchers in this study employed an ex-post facto research methodology based on a correlational research design. As a result, this study had two variables: a dependent variable and an independent variable. According to [3], correlational research has two or more variables. A variable is a property or attribute of a person or organization that can be measured or observed by researchers and that varies among the persons or organizations examined. Furthermore, because the current study discovers a significant association between students' reading speed and reading comprehension, correlational research is acceptable under these conditions. This study employed 40 tenth-grade students from SMA Negeri 10 Denpasar in the academic year 2022–2023 as a sample. Random sampling is a sampling strategy in which each sample has an equal probability of being picked and is meant to reflect the total population impartially.

In addition, to meet the stated aims of this study, the researchers created research tools. The reading speed test was the first instrument. The current study administered a reading speed test to students to determine their reading speed scores. The researcher provided them with a detailed paper titled "Visiting Niagara Falls." The text is 2.881 words long. Students were given a text and told to skim it to determine their word-per-minute speed. The text provided by the test is descriptive. Where the text offers some information regarding the outcomes of prior observations, The time is then determined by the researcher using a stopwatch.

Moreover, for the second instrument, the researcher administered the comprehension exam in order to determine the student's understanding scores. There are 10 questions on the comprehension test from speed test text that students read. Students were given closed questions in true-false format. According to[10], the true-false item is a simple, direct measure of the studied content. Therefore in this study, the researcher used yes and no as test options. The test consists of 10 questions adapted from buku Bahasa inggris kurikulum 2013 Kementerian Pendidikan dan Kebudayaan. Edisi Revisi Jakarta: Kementerian Pendidikan dan Kebudayaan, 2017.

Furthermore, the results of the reading comprehension test and the reading speed performed by the sample must be correct and adhere to the standards. As a result, an assessment scale must be created. Furthermore, the sample answers were analyzed using the rubric for measuring reading comprehension and the criteria for assessing reading speed taken from [12], resulting in varied results depending on the scoring rubric employed by the researcher.

FIND AND DISCUSSION

Finding

The researchers collected data from the sample kids' reading speed and comprehension tests for this study. The research instruments were administered to samples drawn from the population of tenth-grade students at SMA Negeri 10 Denpasar in the academic year 2022-2023. The population was around 320 pupils, and the researchers chose 40 individuals as the sample for this study. The researcher used simple random sampling to conduct this research in eight classes of tenth grade that selected five students, with the sample chosen by the English teacher. Moreover, the researchers used a guiding hypothesis that explicitly demonstrated a significant

relationship between students' reading speed and reading comprehension at SMA Negeri 10 Denpasar of the tenth grade in the academic year 2022-2023.

This present study was conducted utilizing an ex-post facto research methodology and by standards such as the validity and reliability of the research tools. These two critical components ensure that the study data is as legitimate and reliable as possible. The factors were tested using the following research tools: reading speed and comprehension. In the first instrument, the reading speed test, students read a descriptive text given by the researcher. Then the students read it according to their reading speed ability, and at the same time, the researcher calculated the time with a stopwatch. After students read the descriptive text, it is continued with the second instrument, the reading comprehension test; students are given closed questions in a yes-no format related to the text they read to measure students comprehension of reading.

The students' work was graded using an answer key and a scoring rubric adapted from [12]. The researchers described the rules of each test as they gave it and where it was given. On October 17, 2022, the researchers conducted a one-week experiment, showing the prepared test instruments to students and collecting data with a sample size of 40. After reviewing the sample work, the researchers began statistical analysis. The statistical analysis in this study was separated into two stages: precondition analysis and hypothesis testing.

The normality test is used in this study because it is used to test whether the distribution of data in a set of data variables is normally distributed or not. Researchers used SPSS version 25 for Windows to analyze research normality this study. According to the SPSS interpretation, a low significance value (less than 0.05) indicates that the data distribution deviates significantly from the normal distribution. In other words, if the significant value is greater than 0.05, the data is considered normal. Next, it necessary to evaluate whether the data distribution for each variable is normalized. Because the significance of the normality test of reading speed and reading comprehension is more significant than 0.05, it is possible to conclude that the data obtained belongs to the normal group. Furthermore, the analysis findings are reported in the table below.

Table 4.2

Normality Test of Reading Speed and Reading Comprehension

One-Sample Kolmogorov-Smirnov Test		Unstandardized Residual
N		40
Normal Parameters[a,b]	Mean	,0000000
	Std. Deviation	10,68970985
Most Extreme Differences	Absolute	,146
	Positive	,070
	Negative	-,146
Test Statistic		,146
Asymp. Sig. (2-tailed)		,032[c]
a. Test distribution is Normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction.		

Appendix 5, page 64, is the source. SPSS 25 Version for Windows Data Analysis of Normality Test, December 2022

According to the chart above, reading speed and comprehension statistics were given regularly. The value (Sig.) indicates that it is more than 0.05. When the data result is more significant than 0.05, the data is considered normal, according to [11]. The one-sample Kolmogorov-Smirnov normality test assumes that the research data is normal if the significance value (Sig.) is more significant than 0.05. According to SPSS table 4.2 above, the significant value (Sig.) was 0.032, which was more than 0.05. The data variables were found to be randomly distributed.

It determined the data's homogeneity after determining the variables' normality. Homogeneity testing was used to establish if the data obtained from the sample was homogenous or not. Based on statistical computations assisted by IBM SPSS Statistics 25 and the Test of Homogeneity of Variances, the researcher arrived at the following result :

Table 4.3 test of homogeneity of variances

Test of Homogeneity of Variances		Levene Statistic	df1	df2	Sig.
reading speed and reading comprehension	Based on Mean	65,098	1	78	,000
	Based on Median	63,682	1	78	,000
	Based on Median and with adjusted df	63,682	1	39,352	,000
	Based on trimmed mean	64,771	1	78	,000

Appendix 6, page 65, is the source. Homogeneity Test Data Analysis on SPSS 25 Version for Windows, December 2022

The value of (Sig.) is 0.000, as seen in the preceding table. When the result of homogeneity is less than 0.05, the variances can be presumed to be homogeneous, according to [6]. The researchers used Levene's tests in this study to determine if the groups had equal variance, where researchers can evaluate the results of the data based on their significance values. This means that the data acquired from the sample in this investigation was homogeneous.

The Pearson Product Moment Coefficient is used to calculate the relationship between reading speed and reading comprehension. The Pearson correlation coefficient applies to ratio or interval variables, and it is also assumed that each pair of scores is regularly distributed. The correlation coefficient, abbreviated as "r," reflects the strength or weakness of a link between two variables. Pearson Product Moment Correlation was employed in this study to assess the data. Pearson's product-moment Correlation, sometimes known as Pearson's r, is a measure of the linear connection between two interval or ratio variables ranging from -1 to 1. Assuming the link is linear, the Pearson product-moment was employed to determine the strength of the association between the variables. The researcher also used SPSS version 25 to ensure that the above computation produced the correct result. The following were the SPSS findings:

Table 4.5 Table of Correlation

Correlations		Reading Speed	Reading Comprehension
Reading Speed	Pearson Correlation	1	,259
	Sig. (2-tailed)		,106
	N	40	40
Reading Comprehension	Pearson Correlation	,259	1
	Sig. (2-tailed)	,106	
	N	40	40

Appendix 7, page 66, is the source. Pearson Product Moment Correlation Data Analysis using SPSS 25 Version for Windows, December 2022

The index value of Correlation was found to be 0.259. The result of those two calculations (manual and SPSS) is the same. It means that there was no mismatch in the process of calculating data. To know the Correlation between reading speed and reading comprehension, the researcher used the criteria as following the table:

Table 3.2 Indexes of Correlation

The "r" score scale	Interpretation of "r" Correlation
0.800 – 1.00	Very high
0.600 – 0.800	High
0.400 – 0.600	Moderate
0.200 – 0.400	Low
0.00 – 0.200	Very low

According to [1], this coefficient is in the low range of 0.200-0.400, suggesting a poor correlation between the two variables. Ha is not acknowledged since the Correlation's r value is less than the table's r value ($r_{counted} > r_{table}$). The detected r value is 0.259, but the r table of df (39) is 0.331. As a result, since 0.259 and 0.331, H_a has been rejected. Finally, in the academic year 2022-2023, there is no significant association between reading speed and reading comprehension for tenth-grade students at SMA Negeri 10 Denpasar.

The T-test is a statistical test used to compare the means of two groups. The T-test was performed to determine how much the independent variables in this study influenced the application of the dependent variables independently. Furthermore, the t-test was used to determine how much the independent factors used in this study independently influenced the application of purely dependent variables. The reasoning was as follows: if the significant value is greater than 0.05, the hypothesis is rejected; if the significance level is 0.05 or above, the hypothesis is accepted.

In this study, the researcher employed the paired-sample test in t-testing. [11] states that paired-sample T-tests can also be used when the researcher evaluates the same individual in response to two independent queries. Both dimensions should be assessed on the same scale in this case. The following is the outcome of paired-sample t-testing of the data based on a statistical calculation using SPSS version 25:

Table 4.6 paired-sample statistic

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Reading Speed - Reading Comprehension	661,05000	153,41580	24,25717	611,98525	710,11475	27,252	39	,000

Appendix 8, page 67, is the source. T-test data analysis on SPSS 25 for Windows, December 2022

Table 4.6 of the paired-sample test shows that the t-test result is widely accepted because of the 0.000 0.05 employed by [11]. Furthermore, the t-counted result in table 4.6 was 27.252, and the degree freedom result was 39. According to the table, the degree of freedom is 39, which equals 1.684. As a result, the t-counted result was 27.525 > 1.684. It means that H_a has been accepted.

Discussion

The present study used an ex-post facto research strategy with a correlational focus. The current study's data analysis led to the research findings. Furthermore, the following discussion was intended to explain the recent study's findings on the relationship between reading speed and reading comprehension of SMA Negeri 10 Denpasar tenth-grade students in the academic year 2022-2023. Furthermore, based on the research data gathered in this study, the data analysis findings demonstrated a significant correlation between reading speed and reading comprehension for SMA Negeri 10 Denpasar tenth-grade students in their academic year 2022–2023.

The current study validated the hypothesis that there was a strong relationship between reading speed and reading comprehension among tenth-grade students at SMA Negeri 10 Denpasar in the academic year 2022-2023. The statistical analysis in the current study revealed that students with higher reading speeds tended to master reading comprehension more than students with lower reading speeds. According to current ex post facto research findings, reading speed was associated with reading comprehension in tenth-grade students at SMA Negeri 10 Denpasar. It confirmed, with a strong correlation, that the association between reading speed and reading comprehension is valid.

Furthermore, [13] and [4] supported the current investigation. They discovered a strong relationship between the student's reading speed and comprehension. It was consistent with the present study's findings, which connected speed reading to reading comprehension. Both previous studies verified the current study's research results. In other words, these two researchers discovered a relationship between speed reading and reading comprehension. Several variables can influence reading speed issues, lowering pupils' reading comprehension, particularly when reading detailed language. When pupils increase their reading speed, they may put forth their best efforts and absorb the reading content much more quickly. Furthermore, these studies might serve as a resource for future studies on a similar problem.

According to [8], speed reading is used to test a person's competence and speed when reading or digesting a material. In other words, the speed reading technique seeks to enhance, then balance, the reader's reading speed and comprehension. The method is meant to strengthen both reading speed and understanding. The researcher was more confident that both factors were associated due to the idea concerning vocabulary and reading comprehension. The current investigation found that reading speed and comprehension were consistent. It suggests a substantial relationship between reading speed and reading comprehension.

According to the study's findings, most samples could grasp reading comprehension that met the following criteria: comprehending what they had read depending on each student's reading speed ability. However, throughout the data collection process, the researcher made some surprising discoveries concerning selecting sample responses. Most highly readable samples in reading speed tests can more simply and rapidly answer closed questions in true-false or yes-no format tests of descriptive text. They might also fulfil their responsibilities without consulting their colleagues. On the other hand, samples with low reading speed scores would need more time to react to the exam and would take longer to finish. Consequently, future researchers can apply their results to similar studies.

As previously established, reading speed and comprehension are inextricably linked. Reading speed is proven to be related to students' reading comprehension. The findings of hypothesis testing derived using Pearson product-moment correlation and T-tests demonstrate this. This study supports previous research that found a relationship between reading speed and comprehension. According to the research findings, the previously determined directional hypothesis was finally supported. Therefore it can be concluded, there is a significant correlation between the reading speed of class X students of SMA Negeri 10 Denpasar and reading comprehension in the academic year 2022–2023.

CONCLUSION

This study employs an ex-post facto research design with a correlational design. This study aimed to see if there was a significant association between reading speed and reading comprehension in tenth graders at SMA Negeri 10 Denpasar during the 2022–2023 school year. This study used two research instruments to collect data: a reading speed test and a reading comprehension exam. The data for this investigation was gathered meticulously. SPSS 25 for Windows was used to examine the data. Statistics on pupils' reading speed and comprehension were calculated and reviewed by the researchers. Data analysis outcomes include precondition analysis and hypothesis testing. The acquired data can be regarded as meeting the research requirements. According to data analysis, during the 2022–2023 academic year, there was a significant association between reading speed and reading comprehension in class X at SMA Negeri 10 Denpasar. This is obvious from the meticulously collected data acquired through the study's authentic and trustworthy research technique. Furthermore, the study's findings will raise both instructors' and students' awareness of the relevance of reading speed in boosting students' reading comprehension when learning a foreign language.

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