



THE CORRELATION BETWEEN STUDENT'S VOCABULARY MASTERY AND READING COMPREHENSION

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ABSTRACT

The objective of this study was to determine whether there is a correlation between students' mastery of vocabulary and their reading comprehension at SMP Negeri 4 Samarinda. The study focused on the eighth-grade students of SMP Negeri 4 Samarinda during the Academic Year 2022/2023, including a total population of 24 pupils. This study employed quantitative methodologies. Through the utilization of a Test Vocabulary and Test Reading Comprehension. The study employed the Pearson product-moment coefficient calculation in SPSS to evaluate the correlation between students' proficiency in vocabulary and their reading comprehension skills. The p-value of 0.005, which is less than the significance level of 0.05, suggests a significant relationship between vocabulary competency and descriptive reading ability among the students. Based on the available data. The correlation coefficient has a value of 0.557. There was evidently a Moderate level of significance link. The correlation test yielded a score of 0.557, signifying a substantial degree of connection. The researcher identified a direct correlation between the vocabulary proficiency of students and their capacity to comprehend descriptive texts in the eighth grade at SMP Negeri 4 Samarinda.

Keywords: *Vocabulary Mastery, Reading Comprehension, Junior High Students*

1. INTRODUCTION

1.1. Introduction

Reading is a crucial aspect of language proficiency. Reading is a crucial ability in language acquisition since it allows us to gather a wealth of information. The more kids read, the more knowledge they will acquire. Increasing the number of kids who read will result in a greater acquisition of knowledge. Engaging in reading enhances pupils' cognitive abilities and fosters their creativity as cited in (Bahri, 2019). Engaging in reading stimulates the neural activity in the reader's brain, leading to enhanced cognitive abilities and increased receptiveness.

According to the 2013 curriculum, the aim of teaching reading comprehension to junior high school students is for them to understand and analyze the meaning and rhetorical aspects of a short essay effectively and confidently. They should be able to communicate accurately and fluently in their daily lives using descriptive, recount, narrative, report, and procedure texts. The pupils are required to possess reading



abilities such as identifying the central concept of a paragraph, comprehending supporting details, and formulating closing statements, among others.

Nevertheless, the aforementioned goal remains unattained due to kids' inadequate reading comprehension. This may be seen by the fact that pupils still encounter challenges in identifying the fundamental notion of the paragraph. Determining the central concept of a paragraph is a crucial and distinct aptitude for understanding the overall message and intent of the text. This skill is vital for students as it lays the foundation for more advanced reading strategies, such as synthesizing information, making inferences, and drawing conclusions. Without a firm grasp of how to identify the main idea, students are likely to struggle with higher-level comprehension tasks, which can impede their overall academic progress.

Moreover, the inability to pinpoint the central concept affects their ability to connect new information with their existing knowledge, leading to a fragmented understanding of the text. This issue is further compounded by the lack of engagement and motivation among students, who may find reading to be a tedious task rather than an enjoyable and enriching activity. Teachers face the challenge of creating an interactive and stimulating learning environment that fosters a love for reading and encourages students to practice these essential skills.

Additionally, the curriculum's emphasis on various text types requires students to adapt their reading strategies to different genres, which can be overwhelming for those who have not yet mastered basic comprehension skills. The integration of technology and multimedia resources in teaching could provide alternative ways to engage students and enhance their understanding of complex texts.

In conclusion, achieving the curriculum's goals necessitates a multifaceted approach that addresses the root causes of students' reading difficulties. By focusing on developing core comprehension skills, increasing student motivation, and utilizing diverse teaching methods, educators can help students become proficient readers who can navigate various text types with confidence and ease. (Karolina, 2020).

The mechanisms that help students develop their abilities to decipher meaning and extract information from texts should be their main focus. Reading comprehension is a process that involves background knowledge, vocabulary mastery, attentiveness, and grammatical proficiency from the student (Bishry, 2018). The aforementioned



procedures are the main design elements that allow students to easily absorb what they read. It might help children become quick and proficient readers. Reading has some benefits, according to (Mikulecky & Jeffries, 2004) as cited in (Bishry, 2018) It also enhances general English language proficiency. You may expand your English vocabulary, write better, and develop your ideas, facts, and experiences through reading.

On the other hand, certain knowledge can be acquired by means other than reading, such as listening to teachers, attending seminars, or watching television and listening to the radio. However, reading allows pupils to receive a more comprehensive understanding compared to just listening. For instance, an individual who peruses a newspaper will acquire a greater depth of understanding compared to an individual who consumes news through television. Students possess the ability to revisit the text in instances of forgetfulness or when seeking specific details, but listeners lack this capability. This is strongly proved by (Willis, 2008), as referenced in (Bahri, 2019) who asserts that reading enables individuals to get the specific knowledge they need.

The researcher aims to ascertain the correlation between the two variables based on the aforementioned description. The extent to which vocabulary knowledge and reading comprehension are associated, as well as their connection, will be examined. This study focuses on the eighth-grade students of SMP Negeri 4 Samarinda. The results of this study are expected to enhance our understanding of the correlation between students' proficiency in vocabulary and their reading comprehension (Bahri, 2019).

Vocabulary, in the words of (Nation & Newton, 1997) as cited in (Bahri, 2019) is lexical comprehension, encompassing the interpretation of words and their semantic significance. Indeed, vocabulary is a complex matter; achieving mastery of a group of words necessitates comprehending not just their definitions, but also their phonetics and the situations in which they are used. According to (Miller & Gildea, 1987) as cited in (Bahri, 2019), recognizing a word visually and audibly, recognizing a word visually and understanding its meaning, and recognizing a word visually and comprehending it in many situations are not equivalent to possessing the skill of using a word effectively.

According to (Apriliani et al., 2021), comprehension is the cognitive process through which a reader actively creates understanding by engaging with a text, either during or after reading. This process involves drawing upon prior knowledge and



experience, the information presented in the text, the reader's own perspective in relation to the text, and the immediate, remembered, or anticipated social interactions and communication.

Vocabulary is a crucial component in acquiring proficiency in a foreign language. Having a restricted lexicon inevitably leads to a constrained comprehension in terms of verbal expression, reading comprehension, auditory perception, and written communication. (Widyaningsih, 2014) suggests that utilizing language, if one already possesses an inclination towards words, might enhance their reading, writing, speaking, and cognitive abilities. The phrase above suggests that vocabulary is a fundamental component that learners must grasp in order to have success in learning English. Undoubtedly, achieving fluency in a language would be unattainable without acquiring a comprehensive command of its lexicon.

Acquiring a rich vocabulary is crucial when it comes to mastering the English language. When encountering unknown terms in the text, readers need possess certain comprehension strategies. (Bahri, 2019), argue that for readers to fully understand a document, they must recognize its significant words. The readers will be capable of interpreting the significance of the unknown terminology as a consequence. According to (McEntire, 2005), it is not necessary for readers to use a dictionary for every unknown word they encounter. Instead, readers may often deduce the meaning of new terms based on the context of the sentence. The research aims to determine the association between students' vocabulary knowledge and reading comprehension, as explained above.

1.2. Research questions

Is there a correlation between students' mastery of vocabulary and their reading comprehension at SMP Negeri 4 Samarinda?

2. METHOD

2.1. Research Design

This study used correlation analysis and quantitative methodologies to investigate the association between students' vocabulary proficiency and their reading comprehension skills. The study was conducted at SMP Negeri 4 Samarinda, a senior high school, with the goal of discovering how a good vocabulary basis affects students'



capacity to interpret written texts. The methodology entailed gathering and evaluating data from a representative sample of students, ensuring a thorough and reliable analysis of the variables under consideration. The study used statistical analysis to discover patterns and correlations that could shed light on the significance of vocabulary knowledge in improving reading comprehension skills among high school students.

The research findings are anticipated to provide valuable insights into educational strategies that can be employed to improve students' reading skills. By highlighting the significant correlation between vocabulary proficiency and reading comprehension, the study aims to inform educators and curriculum developers about the critical role vocabulary plays in academic success. These insights can lead to more targeted interventions and instructional approaches that prioritize vocabulary development as a means to boost overall reading proficiency. Additionally, the study's outcomes could serve as a foundation for further research in the field, encouraging a deeper exploration of the various factors that contribute to effective reading comprehension in educational settings.

2.2. Samples/Participants

The study sample comprised of eighth-grade students from SMP Negeri 4 Samarinda, with 24 students in each eighth-grade class. The study centered on these students to guarantee a consistent and manageable sample size for accurate analysis. The researcher used a correlational research methodology, which is useful for quantifying variables and exploring their correlations. This strategy involves testing two or more variables to see if there is a statistical link between them. In this situation, the variables under consideration were pupils' vocabulary proficiency and ability to interpret descriptive writings. The study used correlational research to identify patterns and associations that could provide insights into students' educational processes and learning results.

This study is relevant because it investigates the relationship between students' vocabulary proficiency and their ability to interpret descriptive texts, both of which are important aspects of language learning and literacy. Understanding this relationship is critical for educators and curriculum makers working to improve language instruction and student performance. The outcomes of this study can provide useful information on how vocabulary knowledge affects reading comprehension, especially in descriptive



writings that typically demand a nuanced understanding of language and context. By investigating these associations, the study hopes to add to the larger area of educational research while also providing practical implications for teaching practices that can better promote students' language development.

2.3. Instruments

In the study, many main tools were used to assess several areas of 8th graders' language competency. The Test Vocabulary was one of the key tools used to assess pupils' vocabulary mastery. This test is critical for identifying the range of concepts that students actively use and comprehend, offering a clear picture of their vocabulary knowledge. This tool provides vital insights on students' linguistic capacities and readiness to take on more difficult language activities by assessing their ability to recognize and apply various terms effectively. The results of this exam might help educators identify areas in which kids may require further support or enrichment in their vocabulary acquisition.

Another important tool utilized in the study was the Test Reading Comprehension, which assesses students' ability to grasp and analyze written texts. This skill-based test assesses students' ability to recognize particular parts within a given piece of writing, such as primary ideas, details, inferences, and terminology in context. The assessment is designed to measure eighth-grade students' reading comprehension, highlighting their strengths and areas for improvement. To examine the data acquired from these exams, the researchers used SPSS (Statistical Package for the Social Sciences), a robust statistical software that allows for full data analysis and interpretation. Using these tools, the study gives a detailed evaluation of the students' vocabulary and reading comprehension skills, leading to Improved comprehension of their overall language development.

2.4. Data analysis

An analysis was conducted using statistical methods to investigate the relationship between reading motivation and reading comprehension. To quantify the degree of correlation between these two variables, the Pearson product-moment correlation coefficient was employed. This method was chosen due to its effectiveness in measuring the strength and direction of the linear relationship between two continuous variables. The statistical software SPSS (Statistical Package for the Social Sciences)



was utilized to perform the analysis, ensuring robust and reliable computation of the correlation coefficient. The use of SPSS allowed for a comprehensive assessment, including the generation of detailed descriptive statistics and visualization of data trends, further enhancing the understanding of the relationship between reading motivation and reading comprehension. The research employed the criteria for classifying the connection as proposed by (Sugiyono, 2013).

The degree of correlation strength is determined using the correlation coefficient interpretation table, as follows:

Table 1. The level of Correlation

Interval	Category
0.00 – 0.199	Very Low
0.20 – 0.399	Low
0.40 – 0.599	Moderate
0.60 – 0.7999	Strong
0.80 – 1.000	Very Strong

3. FINDINGS AND DISCUSSION

The researcher determined the normalcy of the data, which refers to the statistical validity of the selection test. To assess normality, a significance level of 0.005 was used. In this context, if the significance level (0.005) is greater than the significance value (0.005), then the data is deemed to be normal. The normality of the data was evaluated using the IBM SPSS application, a powerful statistical software tool commonly used for data analysis in research. SPSS provides various tests for normality, such as the Shapiro-Wilk test or the Kolmogorov-Smirnov test, which help determine if the data distribution conforms to a normal distribution.

In this particular assessment, the results from SPSS were carefully analyzed. The outcome displayed the test statistics and the corresponding p-values, allowing the researcher to make an informed decision about the normalcy of the data. By ensuring the data is normally distributed, the researcher can confidently proceed with further statistical analyses, knowing that the assumptions underlying many parametric tests are met. This step is crucial as it impacts the reliability and validity of the research findings. The normality assessment thus forms an integral part of the data preprocessing stage, ensuring robust and accurate results in subsequent analyses.



Table 2. Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Vocabulary	,153	24	,154	,956	24	,371
Reading	,098	24	,200*	,937	24	,143

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

The table below shows about the students' vocabulary and reading score

Table 3 Students Vocabulary and Reading Score

Respondent	Score Vocabulary	Responden	Score Reading
1.	54	1.	78
2.	54	2.	42
3.	88	3.	88
4.	88	4.	88
5.	54	5.	48
6.	62	6.	52
7.	72	7.	62
8.	44	8.	32
9.	72	9.	32
10.	82	10.	82
11.	74	11.	88
12.	72	12.	56
13.	76	13.	76
14.	64	14.	72
15.	78	15.	54
16.	64	16.	56
17.	78	17.	82
18.	64	18.	58
19.	42	19.	68
20.	62	20.	64
21.	32	21.	42
22.	36	22.	42
23.	76	23.	34
24.	48	24.	44

According to the chart provided, the Vocabulary exam had a maximum score of 88 and a minimum score of 32. This indicates a wide range of performance among the test-takers, with some achieving near-perfect scores while others struggled significantly. Similarly, the Reading test also exhibited a maximum score of 88 and a minimum score of 32. The parallel in scoring ranges between the Vocabulary and Reading tests suggests that students' abilities in these areas might be closely related. It would be interesting to explore if there is a correlation between students' performances in these two tests and whether similar factors influenced their scores. Analyzing the data further could provide



valuable insights into the educational needs and strengths of the students. Next, the table displays the frequency distribution:

Table 4. Distribution Frequency Table of Vocabulary Mastery

Category	Interval Score	frequency	Percent	Valid percent	Cumulative percent
Very Good	86-100	2	8,3	8,3	8,3
Good	73-85	6	25,0	25,0	33,3
Average	56-72	8	33,3	33,3	66,7
Poor	41-55	6	25,0	25,0	91,7
Very Poor	0-40	2	8,3	8,3	100,0
Total		24	100,0	100,0	

Based on the data presented, it is clear that the 24 students were divided into five unique groups based on their Vocabulary Mastery scores. Only two students, representing 8.3% of the total, received a high score, indicating a small fraction of the students achieved exceptional vocabulary mastery. In comparison, 6 students, or 25.0% of the total, attained high Vocabulary Mastery scores, showing that a greater, albeit modest, portion of the students performed significantly above average. This disparity highlights that while only a few students excelled greatly, a slightly larger group demonstrated strong proficiency in their vocabulary skills.

Furthermore, 8 students, making up 33.3% of the total, had an average score in Vocabulary Mastery. This significant proportion indicates that a notable segment of the students displayed a moderate level of competency in their vocabulary skills, reflecting an adequate understanding but leaving room for improvement. The distribution of scores suggests that while there are students who excel and others who perform above average, a considerable number are positioned at an intermediate level, signifying the need for targeted interventions to elevate the overall vocabulary mastery among the students.

On the lowest end of the spectrum, 6 students, or 25.0% of the total, received a low Vocabulary Mastery score, indicating that a significant proportion of students are having difficulty learning vocabulary. Furthermore, two students, accounting for 8.3% of the total, obtained a very low score, showing a small but significant percentage encountering serious difficulty in this area. These findings show a wide range of vocabulary competency among the students, with a significant proportion excelling or



doing satisfactorily, while others require specific guidance and intervention to improve their vocabulary skills.

Table 5 Distribution Frequency Table of Reading Comprehension

Category	Interval Score	Frequency	Percent	Valid percent	Cumulative percent
Very Good	86-100	3	12,5	12,5	12,5
Good	73-85	4	16,7	16,7	29,2
Average	56-72	7	29,2	29,2	58,3
Poor	41-55	7	29,2	29,2	87,5
Very Poor	0-40	3	12,5	12,5	100,0
Total		24	100,0	100,0	

Based on the aforementioned data, it is evident that the pupils are classified into five distinct groups according to their performance in Reading Comprehension. Out of the total of 24 pupils, only 3 achieved an excellent grade, which accounts for 12.5% of the total. Additionally, 4 pupils managed to achieve a high score in Reading Comprehension, corresponding to 16.7%. This indicates that a relatively small proportion of the pupils excelled in this area, suggesting potential areas for further development and support to boost these numbers. On the other hand, 7 pupils obtained an average score, representing 29.2% of the total, indicating a significant portion of the students are performing at a moderate level.

Conversely, the data also highlights the challenges faced by a considerable number of students. Out of the total of 24 students, 7 had a bad score in Reading Comprehension, which accounts for another 29.2%. Furthermore, 3 students had a significantly low score, which represents 12.5% of the student population. This substantial number of students performing below average suggests a need for targeted interventions and additional resources to help these pupils improve their reading comprehension skills. The distribution of these scores underscores the diversity in student performance and the importance of tailored educational strategies to address the varying needs of the student body.

Linearity testing is employed to determine the presence of a linear connection between the independent variable and the dependent variable. The linearity test is displayed in the table below:



Table 4.5. Linearity Testing

ANOVA Table							
			Sum of Squares	Df	Mean Square	F	Sig
Vocabulary *Reading	Between Groups	(Combined)	4866,66	16	304,16	2,54	,107
		Linearity	1767,49	1	1767,49	14,77	,006
		Deviation from Linearity	3099,17	15	206,61	1,72	,237
	Within Groups		837,33	7	119,61		
	Total		5704,00	23			

Based on the information provided in the table, it can be inferred that all of the variables are linear. The standard deviation measures the extent to which data points deviate from the mean in a linear manner, as shown in the output of SPSS. The correlation coefficient between the pupils' Vocabulary Mastery and Reading Comprehension was 0.237. Thus, all of the data exhibited a linear relationship for each correlation and regression. There exists a link between two variables that are being examined in this research.

The aim of the study is to determine whether there exists a substantial association between students' proficiency in vocabulary and their reading comprehension at SMP Negeri 4 Samarinda. The main objective of this research during the academic year 2022/2023 is to establish the correlation between students' proficiency in vocabulary and their reading comprehension among eighth-grade students at SMP Negeri 4 Samarinda. The objective of this study was to investigate the potential correlation between students' proficiency in vocabulary and their ability to comprehend written texts. Upon gathering results from the Vocabulary and Reading exam. The researcher examined the data and the correlation between students' proficiency in vocabulary and their ability to comprehend written text. The researcher utilized the Pearson product-moment coefficient calculation in the IBM SPSS program to ascertain the correlation between students' vocabulary proficiency and reading comprehension.



4. CONCLUSIONS

4.1. Conclusion

The purpose of this study during the academic year 2022/2023 was to look into the potential relationship between vocabulary proficiency and reading comprehension skills among eighth-grade students at SMP Negeri 4 Samarinda. The researcher discovered a positive relationship between students' language competency and reading comprehension abilities at SMP Negeri 4 Samarinda, as indicated by the study's findings. The correlation analysis returned a score of 0.557, indicating a significant degree of association. This suggests that as pupils' language skills increase, so does their capacity to understand reading texts. Such findings are critical because they show the important role language plays in interpreting written texts, underlining the need for vocabulary growth in educational curricula.

In the eighth grade at SMP Negeri 4 Samarinda during the academic year 2022/2023, there was a direct association between students' vocabulary proficiency and their reading comprehension abilities. The findings of this study supported the alternative hypothesis (H_a) and rejected the null hypothesis (H_0), indicating that there is a statistically significant association between the two variables. These findings show that boosting vocabulary training could be a crucial method for improving students' reading comprehension levels. The study emphasizes the need of educators focusing on strong vocabulary training as a vital component of literacy instruction, which can lead to improved academic outcomes and a deeper knowledge of reading materials among pupils.

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