

## **The Correlation Between Vocabulary Mastery And Reading Comprehension In English At SMP Negeri 4 Tondano**

**ENJELINA SIANTURI, TINI MOGEA, TIRZA A KUMAYAS**

**UNIVERSITAS NEGERI MANADO**

*Correspondence: [tinimogea@unima.ac.id](mailto:tinimogea@unima.ac.id)*

*Received: 14 Januari 2025*

*Accepted: 13 Februari 2025*

*Published: 16 Februari 2025*

**Abstract :** The purpose of this study is to investigate the potential relationship between vocabulary mastery and reading comprehension. The study was carried out at SMP Negeri 4 Tondano, with students in grades 8 B, which consist of a total of 26 students. A vocabulary mastery test and reading comprehension questionnaire with the (David, 1974) score were used to collect the data, which were then manually correlated using the Pearson Product-Moment method for analysis. The correlation coefficient, or  $r$ , between vocabulary mastery and reading comprehension is 0.783 according to the Pearson Product Moment Correlation Coefficient. The study's result indicates that vocabulary mastery at SMP Negeri 4 Tondano and reading comprehension are highly correlated. It was shown that there was a strong correlation between vocabulary mastery in English classes and their level of reading comprehension. It is required to students to actively seek out feedback from classmates and teachers.

**Keywords:** *The Correlation, Vocabulary, Reading Comprehension.*

### **INTRODUCTION**

According to Sapir (1921: 8), language is a means of communication used to express the speaker's ideas and emotions through a system of consciously generated symbols. English is one of the many languages used in global touch. The ability to communicate in English is one of the most critical components of our lives. English is often used as an international language in various contexts. It is used in all technology, industry, education, and other activities. As a result, there is an effort to use it.

Four essential skills should be taught in the English teaching and learning process in the Indonesian language curriculum. Listening, speaking, reading, and

writing are skills. To fulfill the learning objectives, learners must master these four skills. Language skills are text comprehension activities that are very important for students to master.

Reading is an essential technique for children to develop their overall language skills in English. Reading is classified as a receptive skill in the teaching and learning process. A person's receptive skill is how they derive meaning from what they see or hear (Harmer, 2001:199). Reading can provide a lot of information to a person. The more you read, the more information you will get. Nunan (2003:68) defines reading as a fluid process in which the reader combines data from a book with prior knowledge to construct meaning. Reading allows students to expand their knowledge and gain much information about the subject. Textbooks, magazines, newspapers, leaflets, and electronic displays, such as computer screens, televisions, and mobile phones.

Students need to pay more attention to the sources they read to derive meaning from them. This is known as reading comprehension. Reading requires more than just visual decoding and word recognition. Comprehension is the ultimate goal (Ouellette, 2006: 556). Reading comprehension is the process of understanding words, phrases, and related material; students can learn more knowledge by reading.

## **RESEARCH METHOD**

This chapter discusses the procedures used to conduct the research. This chapter explains the research strategy, Variables and Indicators, population and sample, research instruments, data collection techniques, and data analysis techniques.

### **Research Design**

This research uses quantitative techniques to find the relationship between students' vocabulary acquisition as the independent variable and reading comprehension as the dependent variable. Two variables are quantitatively estimated through correlational analysis, and the relationship between them is found.

## **Variables and Indicators**

This study has two variables: the independent variable and the dependent variable.

Vocabulary mastery (X) is the independent variable.

This study will look at pupils' vocabulary mastery when answering English assessments.

The reading comprehension (Y) variable is the dependent variable.

The dependent variable in this study is students' reading comprehension, particularly their understanding of English reading texts.

The following are the indicators for the two variables mentioned above:

- a. Examining the extent of the student's command of English vocabulary.
- b. Examine pupils' capacity to comprehend English literature in class or everyday situations.

## **Population and Sample**

The population of this study is students of SMP Negeri 4 Tondano. Researchers research this population because of the previously described problems arising from this school. In this study, researcher uses a random sampling technique: taking 26 students to be sampled.

## **Research Instruments**

Two instruments used in this study, namely:

Vocabulary Mastery Test

This study uses a test to assess students' language mastery.

This test is made in multiple-choice format with four options: A, B, C, and D. It is important to get up-to-date information about the children's vocabulary size. The vocabulary in the reading comprehension test was customized accordingly. The test was scheduled to last 40 minutes and consisted of 20 multiple-choice questions. Students' ability scores on the test were classified to find their ability level. The classification is as follows:

<b>The Level of Ability</b>		
<b>No</b>	<b>Test Score</b>	<b>Level of Ability</b>
1.	80 – 100	Excellent
2.	60 – 79	Good
3.	50 – 59	Average
K4.	0 – 49	Poor

(David, 1774)

#### Reading Comprehension Test

The researcher uses an accurate research scale to assess students' reading comprehension. Reading comprehension tests are used to assess students' reading comprehension. The reading comprehension text used is the type of descriptive text taught to students. Part of Reading Comprehension deals with find the main idea of a text and getting information about its content. The study consists of three texts and 20 multiple-choice questions with a time duration of 40 minutes.

#### Reading Comprehension Score

<b>No</b>	<b>Test Score</b>	<b>Level of Ability</b>
-----------	-------------------	-------------------------

1.	80 – 100	Excellent
2.	60 - 79	Good
3.	50 - 59	Average
4.	0 - 49	Poor

(David, 1774)

### **Technique of Data Collection**

The chronological data collection procedure is as follows:

#### **Vocabulary Mastery**

The researcher consults with the English teacher at the school about the vocabulary mastery data. About the activities carried out to obtain vocabulary mastery data.

The researcher gives students 20 multiple-choice questions. Then, students were given 40 minutes to answer the questions.

#### **Reading Comprehension Test**

Students asked to respond to 20 multiple-choice questions containing three student-taught texts as part of the researcher's effort to obtain data from the test.

### **Technique of Data Analysis**

To analyze the data, the researcher uses several steps chronologically as follows:

#### **Scoring the reading comprehension test**

The researcher uses Basco and Han's reading comprehension measurement tool in scoring the test to respond to 20 questions based on (David, 1974) reading comprehension score.

#### **Scoring students' vocabulary acquisition**

The researcher used analytic scores to assess students' vocabulary mastery.

#### **Analyzing students' scores**

To find out the student's average score, the researchers calculated it by using the following formula:  $X = \frac{\Sigma}{N}$

X = Mean score

$\Sigma$  = The sum all score

N = The total number of students

(Sulastri, 2013)

In analyzing the percentage, the researchers calculated the student's final score as follows:  $P \frac{F}{N} \times 100$

P = Presentage rate

F = Frequent of the correct answer

N = Number of respondents

(Sudjana as cited in pertiwi, 2014)

The researcher uses Pearson's product-moment correlation to assess the data between their vocabulary acquisition and English reading comprehension. The correlational technique examined the relationship between the two variables.

$$r = \frac{n(\Sigma xy) - (\Sigma x)(\Sigma y)}{\sqrt{[n(\Sigma x^2) - (\Sigma x)^2][n(\Sigma y^2) - (\Sigma y)^2]}}$$

r = correlation coefficient (-1 < r < 1)

x = distribution of students' vocabulary mastery

y = distribution of student's reading comprehension

$\Sigma x$  = total score of students' vocabulary mastery

$\Sigma y$  = total score of students' reading comprehension

$\Sigma x^2$  = total sum of square of variable x

$\Sigma y^2$  = total sum of square of variable y

$\Sigma xy$  = total number of X multiplied by Y

n = number of samples

The results of the correlation coefficient were found by the Pearson product moment and then interpreted.

Degree of Pearson product moment	
"r" value of product moment	Interpretation
0.00-0.199	Considered as no correlation
0.20-0.399	Low correlation
0.40-0.599	Medium correlation
0.60-0.799	High correlation
0.80-1.00	Perfect correlation
(Sugiono, 2018)	

## FINDINGS AND DISCUSSION

### Findings of Students Reading Comprehension

Students reading comprehension score

Students Reading Comprehension Score		
NO	Name	X
1	AG	70
2	AH	80
3	AP	60
4	AR	90

---

5	CT	80
6	CM	70
7	CP	80
8	EM	60
9	FN	60
10	GK	70
11	HT	80
12	IM	60
13	JR	70
14	JK	70
15	KH	80
16	KD	80
17	MR	70
18	MU	80
19	MA	60
20	NT	70
21	RJ	70
22	RY	80
23	SY	80
24	TS	70

---



25	WM	80
26	YM	80
$\Sigma$	26	1900

From table 4.1, the researcher concludes that the lowest score in Reading Comprehension test is 40 and the highest score is 90.

Classification of students reading score

#### **The distribution of the frequency and percentage of students' reading comprehension**

<b>Test Score</b>	<b>Classification</b>	<b>Frequencies</b>	<b>Percentage</b>
80-100	Excellent	1	4%
60-79	Good	17	66%
50-59	Average	8	30%
0-49	Poor	0	0
	<b>Total</b>	<b>26</b>	<b>100%</b>

Table 4.2 shows that, the rate percentage of the students score in reading from 26 students, there were 1 (4%) students obtained excellent, 7 (34%) students obtained good, 5 (23%) students obtained average, and also 5 (23%) students obtained poor.

The mean score of students' reading comprehension

#### **The mean score of students' comprehension**

<b>Mean score</b>	<b>60,38</b>
-------------------	--------------

The analysis of mean score of students' reading comprehension showed that the students' reading comprehension in SMP Negeri 4 Tondano was in average level.

### Findings of students' vocabulary mastery

Students' vocabulary mastery

**Table 4.4 Students' Vocabulary Mastery**

NO	Name	X
1	AG	70
2	AH	80
3	AP	60
4	AR	90
5	CT	80
6	CM	70
7	CP	80
8	EM	60
9	FN	60
10	GK	70

11	HT	80
12	IM	60
13	JR	70
14	JK	70
15	KH	80
16	KD	80
17	MR	70
18	MU	80
19	MA	60
20	NT	70
21	RJ	70
22	RY	80
23	SY	80
24	TS	70
25	WM	80
26	YM	80
$\Sigma$	26	1900

From the table above, the researcher concludes that the lowest score in vocabulary mastery test by reading comprehension test is 5 and the highest score is 90.

#### 1. Classification of students' vocabulary mastery

**Table 4.5 The distribution of the frequency and percentage of students' vocabulary mastery**

Test Score	Classification	Frequencies	Percentage
80-100	Excellent	12	46%
60-79	Good	14	54%
50-59	Average	0	0
0-49	Poor	0	0
<b>Total</b>		<b>26</b>	<b>100%</b>

From the table above, it can be seen that 6 (28%) students have a high level of self-esteem, 11 (53%) students have a moderate vocabulary mastery, and 4 (19%) students have a low vocabulary mastery.

#### 1. The mean score of students' vocabulary mastery

**Table 4.6 The mean score of students' vocabulary mastery**

Mean Score
<b>73,07</b>

The analysis of mean score of students' vocabulary mastery above shows that the students' vocabulary mastery of SMP Negeri 4 Tondano was moderate vocabulary mastery.

**Table 4.7 The Correlation Between Vocabulary Mastery (X) and Students' Reading Comprehension (Y)**

NO	Name	X	Y	X <sup>2</sup>	Y <sup>2</sup>	XY
1	AG	70	60	4900	3600	4200
2	AH	80	75	6400	5625	6000
3	AP	60	50	3600	2500	3000
4	AR	90	85	8100	7225	7650
5	CT	80	60	6400	3600	4800
6	CM	70	60	4900	3600	4200
7	CP	80	75	6400	5625	6000
8	EM	60	50	3600	2500	3000
9	FN	60	50	3600	2500	3000
10	GK	70	60	4900	3600	4200
11	HT	80	60	6400	3600	4800
12	IM	60	55	3600	3025	3300
13	JR	70	60	4900	3600	4200
14	JK	70	50	4900	2500	3500
15	KH	80	60	6400	3600	4800
16	KD	80	65	6400	4225	5200
17	MR	70	60	4900	3600	4200
18	MU	80	70	6400	4900	5600
19	MA	60	50	3600	2500	3000
20	NT	70	60	4900	3600	4200
21	RJ	70	50	4900	2500	3500
22	RY	80	60	6400	3600	4800
23	SY	80	75	6400	5625	6000

24	TS	70	50	4900	2500	3500
25	WM	80	60	6400	3600	4800
26	YM	80	60	6400	3600	4800
<b>Σ</b>	<b>26</b>	<b>1900</b>	<b>1570</b>	<b>140600</b>	<b>96950</b>	<b>116250</b>

The researcher computed the following data using the Pearson Product Moment Correlation method in order to explain the research findings:

Based on the data above, researcher find:

N : 26

Σx : 2200

Σy : 1850

Σx<sup>2</sup> : 186700

Σy<sup>2</sup> : 133200

Σxy : 157100

$$\begin{aligned}
 r &= \frac{n(\sum XY) - (\sum X)(\sum Y)}{\sqrt{[n(\sum X^2) - (\sum X)^2][n(\sum Y^2) - (\sum Y)^2]}} \\
 r &= \frac{26(116250) - (1900)(1570)}{\sqrt{[26(140600) - (1900)^2][26(96950) - (1570)^2]}} \\
 r &= \frac{30225.00 - 29830.00}{\sqrt{[36556.00 - 36100.00][2520700 - 2464900]}} \\
 r &= \frac{395.00}{\sqrt{[45.600][55.800]}} \\
 r &= \frac{395.00}{\sqrt{2544480000}} \\
 r &= \frac{395.00}{5044.283} \\
 &= 0.783
 \end{aligned}$$

The correlation coefficient between student reading comprehension and vocabulary mastery or r is 0.783, according to the Pearson Product Moment Correlation Coefficient. The findings indicate a high relationship between the reading

comprehension of SMP Negeri 4 Tondano student and their sense of vocabulary mastery. The researcher came to the conclusion that there was a strong link between students' reading comprehension in English classes and their vocabulary mastery.

## REFERENCES

- Basco, L. M., & Han, S.-H. (2016). motivation, and anxiety of Korean university students. *Journal of Language Teaching and Research*, 7(6), 1069.
- Bishry, Hasanul. 2018. "The Correlation Between Vocabulary Mastery and Reading Comprehension." *Tarbawi: Jurnal Ilmu Pendidikan* 14(2):63. doi: 10.32939/tarbawi.v14i2.292.
- Brown, Douglas H. 2001. *Teaching by Principles An Interactive Approach Language Pedagogy*. New York: Addison Wesley Longman.
- Cameron, L. (2001). *Teaching Languages to Young Learners*. Cambridge.
- Devi, Ruhma, Yudi Juniardi, and Syafrizal. 1967. "Improving Students' Reading Comprehension and Writing Ability of Narrative Text through Story Map Strategy." *Angewandte Chemie International Edition*, 6(11), 951–952.
- Duffy, Gerald. D. (2009). *Explaining Reading: A Resource for Teaching Concepts, Skills, and Strategies*. London: The Guilford Press.
- Ganie, Rohani, and Rahmadsyah Rangkuti. 2019. "Reading Comprehension Problems on English Texts Faced By High School Students in Medan." 2019:684–94. doi: 10.18502/kss.v3i19.4896.
- Grabe, W & Stoller, F. 1 (2002). *Teaching and Researching Reading*. Britain: Pearson Education.
- Harmer, J. (2001). *The Practice of English Language Teaching*. Cambridge.
- Movie, Tonya. 2021. "Journal of Arts and Humanities." 25(2004):128–34.
- Maru, M. G., Tamowangkay, F. P., Pelenkahu, N., & Wuntu, C. (2022). Teachers' perception toward the impact of platform used in online learning

- communication in the eastern Indonesia. *International Journal of Communication and Society*, 4(1), 59-71.
- Liando, N. V., Sahetapy, R. J., & Maru, M. G. (2018). ENGLISH MAJOR STUDENTS' PERCEPTIONS TOWARDS WATCHING ENGLISH MOVIES IN LISTENING AND SPEAKING SKILLS DEVELOPMENT. *Advances in Social Sciences Research Journal*, 5(6).
- Liando, N. V., Dallyono, R., Tatipang, D. P., & Lengkoan, F. (2023). Among English, Indonesian and local language: Translanguaging practices in an Indonesian EFL classroom. *Indonesian Journal of Applied Linguistics*, 13(1), 204-216.
- Liando, N. V. F., & Tatipang, D. P. (2022). English or Indonesian language? Parents' perception toward children's second language learning context. *Jurnal Lingua Idea*, 13(1), 61-75.
- Tatipang, D., Oroh, E. Z., & Liando, N. V. (2021). THE APPLICATION OF MIND MAPPING TECHNIQUE TO INCREASE STUDENTS' READING COMPREHENSION AT THE SEVENTH GRADE OF SMP. *Kompetensi*, 1(03), 389-397.
- Liando, N. V. F., Tatipang, D. P., & Wuntu, C. N. (2023). First Language Interfere in EFL Classes: Revealing Students' Perspectives and Teachers' Reasons in ELL. *REiLA: Journal of Research and Innovation in Language*, 5(1), 77-88.
- Liando, N. V. F., Tatipang, D. P., Tamboto, G., Poluan, M., & Manuas, M. (2022). Pictures as a learning media in teaching vocabulary. *Jurnal Ilmiah Universitas Batanghari Jambi*, 22(3), 1944-1949.
- Liando, N. V., Tatipang, D. P., & Lengkoan, F. (2022). A study of translanguaging practices in an EFL classroom in Indonesian context: A multilingual concept. *Research and Innovation in Language Learning*, 5(2), 167-185.
- Muijs, D (2004). *Doing Quantitative Research in Education with SPSS*.
- Ningsih, Ni, Luh Widhiasi, and Nengah Handayani. 2021. "The Correlation Between Vocabulary Mastery and Reading Comprehension of the Seventh-Grade Students of Smpn 2 Kuta Utara in Academic Year 2020/ 2021." *Academic Journal on English Studies* 1(2).



- Nunan, D. (2003). *Language Teaching Methodology: A Textbook for Teachers*. New York.
- Nurfidah, N. 2021. "Penguasaan Materi Keterampilan Membaca Mahasiswa S1 Program Studi Pendidikan Bahasa Dan Sastra Indonesia Stkip Harapan Bima." *BAHTRA: Pendidikan Bahasa Dan Sastra* 2(1):1–4.
- Nurhadi. (2008). *Membaca Cepat dan Efektif*. Bandung: Sinar Baru Algensindo.
- Oullette. (2006). What's Meaning Got to Do with It: The Role of Vocabulary in Word Reading and Reading Comprehension. *Journal of Educational Psychology*. Vol. 98 number 3.
- Rorintulus, O., Wuntu, C. N., Tatipang, D. P., Karisi, Y., Kicha, L., Tineh, S., & Pratasik, G. (2024). *Literary-Based ELT: Alternatives for Creative and Innovative English Learning*. Penerbit Tahta Media.
- Samola, Nurmin. 2023. "The Implementation of Games in Vocabulary Learning at the English Education Department FBS UNIMA." *Journal of English Culture, Language, Literature and Education* 11(1):125–45
- Mogea, T. (2022). IMPROVING STUDENTS' VOCABULARY THROUGH DISPLAY TABLE GAME. *Jurnal Pendidikan dan Sastra Inggris*, 2(3), 172-184.