



Investigating the Correlation Between Vocabulary Mastery and Narrative Reading Comprehension Among EFL University Students

Andi Candra Kurniawan^{1✉}, Eko Suhartoyo², Mochamad Imron Azami³

(1) Universitas Islam Malang, (2) Universitas Islam Malang, Indonesia

Corresponding Author
(andocandra@gmail.com)

Received : 20-04-2026

Revision : 22-06-2026

Accepted : 25-07-2026

Published : 27-08-2026

Abstract

Although previous studies have reported a positive relationship between vocabulary mastery and reading comprehension, less attention has been given to the relationship between selected semantic and contextual aspects of vocabulary knowledge and narrative reading comprehension among Indonesian EFL university students. This study aimed to investigate the correlation between students' vocabulary mastery and reading comprehension of narrative texts among fourth-semester students in the English Education Department at Universitas Islam Malang. A quantitative correlational design was employed with 29 eligible students, representing the entire accessible population, through total sampling. Data were collected using multiple-choice tests measuring vocabulary mastery through synonyms, antonyms, contextual meaning, and word classification, and reading comprehension through main ideas, explicit and implicit information, contextual word meaning, and text structure. Descriptive statistics showed that the mean vocabulary mastery score was 68.62 (Fair), while the mean reading comprehension score was 83.10 (Very Good). Pearson's Product-Moment Correlation analysis revealed a statistically significant positive correlation between vocabulary mastery and reading comprehension ($r = 0.398$, $p = 0.032$; 95% CI [0.037, 0.667]), indicating a weak-to-moderate relationship. The findings suggest that higher vocabulary mastery is associated with better reading comprehension, although the correlation does not imply a causal relationship. The study provides additional empirical evidence on the association between selected aspects of vocabulary knowledge and narrative reading comprehension among Indonesian EFL university learners and suggests the value of integrating contextual and semantic vocabulary activities into reading instruction.

Keyword: Vocabulary Mastery; Reading Comprehension; Narrative Text; Correlational Study; EFL

1. INTRODUCTION

Reading comprehension is widely recognized as one of the most fundamental and complex skills in English as a Foreign Language (EFL) learning because it enables learners to acquire knowledge, engage with academic discourse, and develop critical thinking abilities. Rather than merely decoding written symbols, reading comprehension is an interactive cognitive process through which readers actively construct meaning by integrating textual information with their prior knowledge, linguistic competence, and metacognitive reading strategies. At the university level, this ability becomes increasingly

important because students are expected to comprehend diverse academic materials, including textbooks, research articles, and literary texts, that require higher levels of language proficiency and analytical thinking (Zahra & Zuhri, 2025).

Nevertheless, many EFL university students continue to experience difficulties in comprehending English texts, particularly narrative texts, which require readers to interpret explicit and implicit information, make inferences, and understand contextual meanings (Ramadani, Saiful, & Azis, 2021). Successful reading comprehension is influenced by multiple linguistic and cognitive factors, including background knowledge, reading strategies, grammatical competence, and vocabulary knowledge. Among these factors, vocabulary knowledge has consistently been identified as one of the strongest predictors of reading comprehension because it enables learners to recognize lexical items, establish semantic relationships, and construct meaning efficiently during reading. Conversely, insufficient vocabulary knowledge may interrupt lexical processing, reduce reading fluency, and ultimately hinder overall text comprehension. Consequently, understanding how different dimensions of vocabulary knowledge contribute to reading comprehension has become an increasingly important issue in contemporary EFL research (Manihuruk, 2020).

Vocabulary knowledge is a multidimensional construct that extends beyond knowing the meaning of isolated words. According to contemporary vocabulary knowledge frameworks, it consists of two complementary dimensions: breadth, which refers to the number of words learners know, and depth, which reflects how well those words are understood in terms of their meanings, grammatical functions, collocations, morphological characteristics, and contextual usage (Septiana & Hanafi, 2022). While breadth of vocabulary knowledge facilitates word recognition during reading, depth of vocabulary knowledge enables learners to interpret lexical relationships and comprehend how words function within different linguistic contexts.

Consequently, learners with deeper vocabulary knowledge are generally better able to process complex texts and construct accurate meanings. In narrative texts, this competence is particularly important because readers must understand descriptive language, character interactions, temporal sequences, and implicit meanings that are often expressed through varied lexical and grammatical patterns (Huang, Hamdan, Hashim, & Zheng, 2024). Students with limited vocabulary knowledge frequently experience difficulties in identifying main ideas, making inferences, interpreting contextual meanings, and understanding semantic relationships among words, which ultimately hinders their overall reading comprehension (Ayana, Mereba, & Alemu, 2024).

Therefore, successful comprehension of narrative texts depends not only on vocabulary size but also on learners' depth of vocabulary knowledge, supported by adequate background knowledge and effective reading strategies. This perspective provides a stronger theoretical foundation for examining how specific dimensions of vocabulary knowledge contribute to reading comprehension among EFL university students (Teng, 2025). Several empirical studies have consistently demonstrated a positive relationship between vocabulary knowledge and reading comprehension across different educational contexts. For example, (Lo, 2025). Notes that vocabulary mastery is not limited to memorizing word meanings but also entails understanding contextual usage, collocations, and morphological variation. Narrative texts occupy an important place in English language learning because they contain rich linguistic features, including story structure, character development, conflict resolution, and moral themes, all of which require comprehensive vocabulary knowledge to interpret.

Students who lack sufficient vocabulary often struggle to identify the main idea,

understand implicit information, or distinguish the connotative meanings of words within a narrative context. This limitation negatively affects their overall comprehension performance (Abidin, 2023). Argue that successful reading comprehension depends on an integration of broad vocabulary knowledge, appropriate background knowledge, and effective reading strategies. Several empirical studies have explored the relationship between vocabulary mastery and reading comprehension with consistent findings (Lee & Shih, 2025). reported that vocabulary knowledge significantly predicted reading comprehension among secondary school students, while Bahri (2018) obtained similar findings in the Indonesian junior high school context. Likewise, Alemi and Tayebi (2011) found that vocabulary knowledge contributed substantially to university students' reading comprehension performance.

Previous studies have consistently demonstrated a positive relationship between vocabulary knowledge and reading comprehension across different educational levels. However, the studies reviewed in this manuscript primarily conceptualized vocabulary as a general construct, without distinguishing specific semantic and contextual dimensions of vocabulary knowledge. Indonesian studies by Furqon (2013) and Bahri (2018) focused on secondary and junior high school learners, while Rahmah (2023) examined university students but did not specifically address the relationship between semantic vocabulary knowledge and narrative reading comprehension. Consequently, what remains insufficiently examined is the specific relationship between selected semantic and contextual aspects of vocabulary knowledge and comprehension of narrative texts among fourth-semester Indonesian EFL university learners. This gap is important because narrative comprehension requires learners to interpret contextual meanings, understand relationships among words, identify implicit information, and follow text structure. Therefore, rather than claiming a general lack of research on vocabulary and reading comprehension, the present study addresses a more specific gap concerning the intersection of vocabulary dimension, text genre, and learner level. This focus provides a more nuanced basis for understanding how semantic and contextual vocabulary knowledge relates to narrative reading comprehension in Indonesian EFL higher education.

This study offers both theoretical and practical significance to the field of English language teaching. Theoretically, it extends the existing literature by providing empirical evidence on the relationship between vocabulary knowledge and reading comprehension among Indonesian EFL university students, with particular emphasis on depth of vocabulary knowledge represented through synonyms, antonyms, and contextual meanings. Unlike previous studies that primarily examined vocabulary as a general construct, the present study adopts a more focused perspective to explore how specific dimensions of vocabulary knowledge contribute to students' comprehension of narrative texts. Practically, the findings are expected to assist English lecturers in designing vocabulary-integrated reading instruction that promotes students' comprehension through systematic development of vocabulary knowledge. In addition, this study may serve as a reference for future research investigating vocabulary knowledge and reading comprehension across different educational contexts, learner proficiency levels, and text genres.

2. METHODS

Research Design

This study employed a quantitative correlational research design to examine the relationship between students' vocabulary mastery and their reading comprehension of

narrative texts (Özönder, 2016). A correlational design was considered appropriate because the study aimed to determine the strength and direction of the association between the two measured variables without manipulating or controlling them. Vocabulary mastery and reading comprehension were therefore treated as two measured variables, rather than as independent and dependent variables. Data were collected at a single point in time and analyzed using Pearson's Product-Moment Correlation to determine the magnitude, direction, and statistical significance of the relationship between the variables. This design was appropriate for the purpose of identifying whether students with higher levels of vocabulary mastery also tended to demonstrate higher levels of reading comprehension, without implying a causal relationship between the two variables.

Participants

The accessible population consisted of 29 fourth-semester undergraduate students enrolled in the English Education Department at Universitas Islam Malang (UNISMA). All 29 students met the inclusion criteria, which required participants to be officially enrolled in the fourth semester, to have completed at least one reading course, and to have sufficient exposure to English narrative texts. Because the entire accessible population met the eligibility criteria and participated in the study, total sampling was employed. Thus, all 29 eligible students were included in the study, resulting in a 100% participation rate. The final sample consisted of 29 fourth-semester undergraduate students.

Research Instruments

Two research instruments were employed to collect the data: a vocabulary mastery test and a reading comprehension test. Both instruments consisted of 20 objective multiple-choice items with four answer options. The vocabulary mastery test assessed synonyms, antonyms, contextual meanings, and word classification, while the reading comprehension test assessed main ideas, explicit and implicit information, word meanings in context, and text structure. The instruments were adapted from the existing materials reported by Devinta Sadya Ratri (2017) and were administered to the participants in the present study. However, detailed documentation of the original validation procedure, pilot testing, item-level analysis, and reliability coefficients was not available in the research records. Therefore, the present study does not report specific validity and reliability coefficients that cannot be independently verified. The item distribution and scoring procedures are presented in Table 1.

Table 1. Research Instrument Blueprint

Variable	Indicators	No. of Items	Item Type
Vocabulary Mastery (X)	Synonyms, Antonyms, Contextual Meaning, Word Classification	20	MCQ (4 options)
Reading Comprehension (Y)	Main Idea, Explicit Info, Implicit Info, Word in Context, Text Structure	20	MCQ (4 options)

Data Collection and Analysis

Data collection was conducted in a single session under the same testing conditions for all participants. The vocabulary mastery test was administered first, followed by the reading comprehension test, with a total administration time of approximately 40 minutes. Each correct response received one point, and the raw scores were converted to a 100-point scale for analysis. To minimize potential content overlap between the two measures, the vocabulary test was administered independently from the reading comprehension test,

and the vocabulary items were not intended to reproduce the same questions used in the reading test. Nevertheless, because the tests were administered in a fixed order, potential order and fatigue effects are acknowledged as a methodological limitation.

The data were analyzed using IBM SPSS Statistics. Descriptive statistics, including the mean, minimum, maximum, and standard deviation, were calculated for both variables. Because the sample consisted of 29 participants, the Shapiro–Wilk test was used to assess the normality of vocabulary mastery and reading comprehension scores. Pearson's Product-Moment Correlation was then employed to examine the strength and direction of the relationship between the two variables. Prior to Pearson correlation analysis, the assumptions of linearity, absence of influential outliers, and homoscedasticity were examined using appropriate diagnostic procedures. Statistical significance was established at $p < .05$. The obtained Pearson correlation was $r = .398$, $p = .032$, indicating a statistically significant positive relationship between vocabulary mastery and reading comprehension. Students' achievement levels were interpreted according to Harris (1969), while the strength of the correlation coefficient was interpreted based on Taber (2018).

Table 2. Score Category Classification (Harris, 1969)

No.	Score Range	Category
1	91–100	Excellent
2	81–90	Very Good
3	71–80	Good
4	61–70	Fair
5	51–60	Poor
6	≤50	Very Poor

Table 2 presents the score classification adopted from Harris (1969), which was used to interpret students' performance in both the vocabulary mastery and reading comprehension tests. This classification provides a standardized framework for categorizing students' achievement into five performance levels: Excellent, Very Good, Good, Fair, Poor, and Very Poor. The same criteria were consistently applied throughout the study to facilitate the interpretation and comparison of the descriptive statistics obtained from both variables.

3. RESULTS AND DISCUSSION

3.1. Vocabulary Mastery Results

The vocabulary mastery test results showed that students obtained scores ranging from 60 to 90, with a mean score of 68.62 (SD = 11.19), indicating a Fair level of overall vocabulary mastery. Specifically, three students (10.3%) achieved a score of 90 (Very Good), five students (17.2%) scored 80 (Good), six students (20.7%) obtained 70 (Fair), and fifteen students (51.7%) scored 60 (Poor). Thus, although the mean score placed the overall vocabulary mastery in the Fair category, more than half of the participants demonstrated Poor vocabulary mastery based on their individual scores.

These findings suggest that although the participants possessed sufficient vocabulary knowledge to understand basic English texts, many had not yet developed a comprehensive lexical repertoire required for more effective comprehension of narrative texts. From a descriptive perspective, the predominance of the *fair* category indicates that students' vocabulary knowledge remains an area requiring further development. These descriptive statistics provide an important baseline for the subsequent correlation analysis, which examines whether differences in vocabulary mastery are associated with variations in students' reading comprehension performance (Hampu & Fidinillah, 2023).

Table 3. Distribution of Vocabulary Mastery Scores

No.	Score	Category	Frequency	Percentage (%)
1	90	Very Good	3	10.3%
2	80	Good	5	17.2%
3	70	Fair	6	20.7%
4	60	Poor	15	51.7%
Total		Mean = 68.62	29	100%

Table 3 presents the distribution of students' vocabulary mastery scores. The participants obtained scores ranging from 60 to 90, with a mean score of 68.62 (SD = 11.19), placing the overall vocabulary mastery in the **Fair** category according to the revised classification based on Harris (1969). More than half of the participants (51.7%) were classified in the Poor category, while 20.7% were classified as Fair, 17.2% as Good, and 10.3% as Very Good. These findings indicate that although the overall mean vocabulary mastery was Fair, the distribution was concentrated at the lower end of the achievement scale.

This distribution demonstrates that the participants generally possessed a moderate level of vocabulary knowledge, although noticeable differences in individual performance were evident. The relatively wide spread of scores, as reflected by the standard deviation, indicates variability in students' lexical competence across the sample. Such variability is particularly important in correlational research because differences in vocabulary mastery provide the necessary basis for examining whether variations in lexical knowledge are associated with differences in reading comprehension performance. Consequently, these descriptive findings establish an empirical foundation for the subsequent correlation analysis and contribute to a more comprehensive interpretation of the relationship between the two variables (Amir & dkk, 2024).

3.2. Reading Comprehension Results

Table 4. Distribution of Students' Reading Comprehension Scores

No.	Score	Category	Frequency	Percentage (%)
1	100	Excellent	2	6.9
2	90	Very Good	13	44.8
3	80	Good	8	27.6
4	70	Fair	4	13.8
5	60	Poor	2	6.9
Total			29	100.0
Mean = 83.10				

Table 4 presents the descriptive statistics of students' reading comprehension performance. The reading comprehension test results showed scores ranging from 60 to 100, with a mean score of 83.10 (SD = 11.22), indicating a Very Good level of reading comprehension according to the revised classification based on Harris (1969). The scores ranged from 60 to 100, with a mean score of 83.10 (SD = 11.22), indicating a Very Good level of reading comprehension according to the revised classification based on Harris (1969). The majority of students, 13 (44.8%), obtained a score of 90 and were classified as Very Good, followed by 8 students (27.6%) who obtained a score of 80 and were classified

as Good. Four students (13.8%) scored 70 and were classified as Fair, while two students (6.9%) scored 60 and were classified as Poor. The remaining two students (6.9%) achieved a score of 100 and were classified as Excellent. Overall, 23 students (79.3%) obtained scores in the Good, Very Good, or Excellent categories, indicating that most participants demonstrated relatively strong reading comprehension of narrative texts. These results demonstrate that the majority of students achieved satisfactory performance in comprehending narrative texts, with nearly three-quarters of the participants obtaining scores of 80 or above (Sugiyati & Sujarwati, 2025).

The descriptive statistics further reveal that students' reading comprehension performance was substantially higher than their vocabulary mastery, as reflected in the higher mean score (83.10 versus 68.62). This finding indicates that, despite only moderate vocabulary mastery, most participants were able to comprehend narrative texts at a relatively successful level. From a descriptive perspective, this pattern suggests that reading comprehension is a multidimensional construct influenced by a combination of linguistic knowledge and cognitive processes rather than vocabulary knowledge alone. This interpretation is consistent with interactive models of reading, which conceptualize reading comprehension as an active meaning-construction process involving the integration of textual information with readers' prior knowledge, linguistic competence, and strategic processing (Yulianti, 2022). Likewise, the Simple View of Reading proposes that successful comprehension emerges through the interaction of language comprehension and decoding abilities, while vocabulary knowledge constitutes one important component within this broader framework. Consequently, the higher reading comprehension scores observed in this study provide an important empirical basis for examining whether vocabulary mastery remains significantly associated with reading comprehension performance despite the influence of other cognitive and linguistic factors. These descriptive findings therefore establish a logical foundation for the subsequent Pearson Product-Moment correlation analysis (Wahid, Rozi, Baharun, & Safitri, 2021).

3.3. Descriptive Statistics Summary

Table 5 summarizes the descriptive statistics for both research variables. The results show that the mean score for reading comprehension ($M = 83.10$) was considerably higher than that for vocabulary mastery ($M = 68.62$). This pattern indicates that although students demonstrated only a fair level of vocabulary knowledge, they were generally able to achieve good performance in comprehending narrative texts. Such findings suggest that reading comprehension is not determined solely by vocabulary knowledge but may also involve other cognitive and linguistic processes.

This descriptive pattern is consistent with the Interactive Model of Reading, which proposes that successful comprehension results from the interaction between textual information and readers' existing linguistic knowledge, background knowledge, and strategic processing. Similarly, the Simple View of Reading emphasizes that reading comprehension is influenced by both decoding ability and language comprehension, with vocabulary constituting one important component rather than the sole determinant of successful reading (Signorell A et al., 2024). Therefore, the descriptive differences observed in Table 5 provide an initial indication that vocabulary mastery may contribute to reading comprehension while other factors are also likely to influence students' comprehension performance. This assumption was examined further through the Pearson Product-Moment correlation analysis.

Table 5. Descriptive Statistics of Both Variables

Variable	N	Min	Max	Mean
Vocabulary Mastery (X)	29	60	90	68.62
Reading Comprehension (Y)	29	60	100	83.10

To examine the relationship between vocabulary mastery and reading comprehension, the Pearson Product-Moment Correlation analysis was employed. Pearson correlation is one of the most widely used parametric statistical techniques for measuring the strength and direction of the linear relationship between two continuous variables and is appropriate when the assumptions of normality and linearity are satisfied. Accordingly, the analysis was conducted to test the hypothesis that vocabulary mastery is positively associated with students' reading comprehension. (Mumpuni & Supriyanto, 2020). Prior to performing the correlation analysis, the distribution of both variables was examined using the Kolmogorov Smirnov normality test. The results indicated that the significance values for both variables exceeded the threshold of 0.05 ($p > 0.05$), confirming that the data were normally distributed and met the assumptions required for parametric analysis. Since the normality assumption was satisfied, the Pearson Product Moment Correlation test was considered appropriate for determining the magnitude and statistical significance of the relationship between vocabulary mastery and reading comprehension. The results of the correlation analysis are presented in Table 6 (Hidayah, Sabarun, & Widiastuty, 2023).

Table 6. Pearson Product-Moment Correlation Analysis Results

Variable Pair	Pearson's <i>r</i>	<i>p</i> -value (2-tailed)	Coefficient of Determination (r^2)	Interpretation	Decision
Vocabulary Mastery and Reading Comprehension	0.398	0.032	0.158	Weak-to-Moderate Positive Correlation	H_1 Accepted

Correlation is significant at the 0.05 level (2-tailed)

Table 6 presents the Pearson Product-Moment correlation analysis between vocabulary mastery and reading comprehension. The analysis revealed a statistically significant positive correlation between the two variables ($r = 0.398$, $p = 0.032$, 95% CI [0.037, 0.667]). This finding indicates that students with higher vocabulary mastery tended to demonstrate higher reading comprehension performance. The magnitude of the correlation was classified as weak to moderate (Taber, 2018), indicating that the association was positive but not strong. The coefficient of determination ($r^2 = 0.158$) indicates that approximately 15.8% of the variance was shared between vocabulary mastery and reading comprehension. The remaining 84.2% should not be interpreted as variance attributable to specific unmeasured factors, because such factors were not examined in the present study. Instead, the finding indicates that vocabulary mastery represents one component of the broader set of factors associated with reading comprehension. Therefore, the statistically significant correlation should be interpreted as evidence of an association rather than a causal effect of vocabulary mastery on reading comprehension.

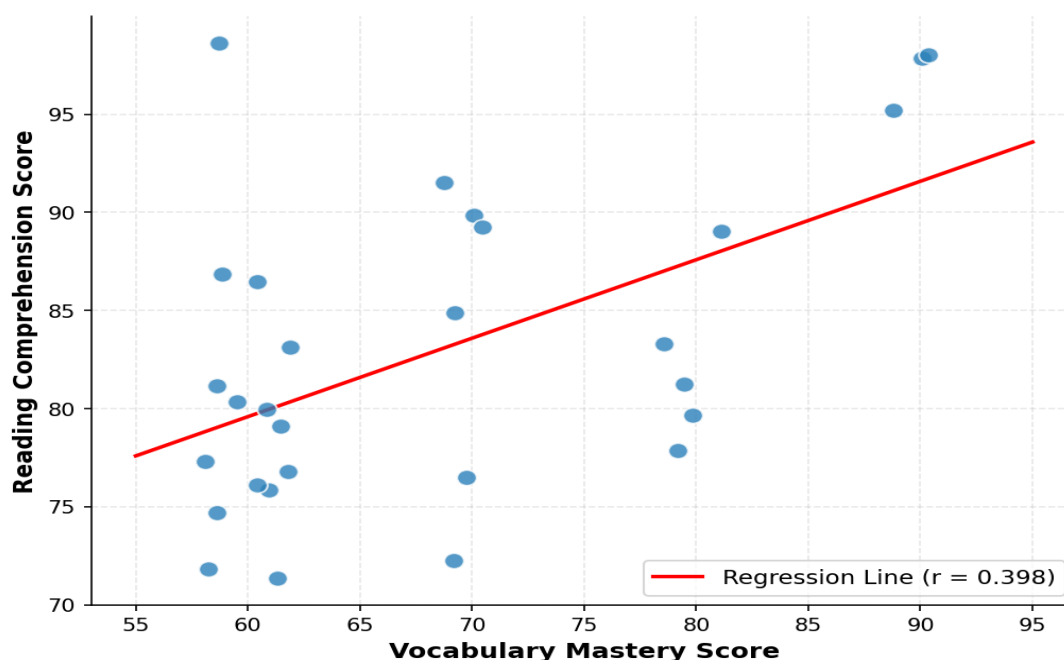
The findings support contemporary theories of vocabulary acquisition and reading comprehension, particularly Nation's framework of vocabulary knowledge, which emphasizes that successful reading depends not only on vocabulary size (breadth) but also on the quality of lexical knowledge (depth), including semantic relationships and contextual word understanding. Students who possess richer lexical representations are generally better able to access word meanings efficiently, integrate textual information, and construct coherent interpretations while reading (Li et al., 2024). Nevertheless, vocabulary knowledge alone cannot fully account for successful comprehension because readers simultaneously rely on grammatical knowledge, inferencing ability, discourse awareness, and strategic processing throughout the reading process.

An interesting finding of the present study is that the participants achieved a Very Good level of reading comprehension despite demonstrating only Fair overall vocabulary mastery. This discrepancy suggests that students were able to compensate for limitations in vocabulary knowledge by drawing upon other cognitive resources. This discrepancy suggests that students were able to compensate for limitations in vocabulary knowledge by drawing upon other cognitive resources. Such a pattern is consistent with the Interactive Model of Reading and Schema Theory, which propose that comprehension results from the interaction between textual information and readers' prior knowledge, linguistic competence, and reading strategies. Consequently, students with only moderate vocabulary knowledge may still achieve satisfactory comprehension by utilizing contextual clues, recognizing narrative structures, activating relevant background knowledge, and making appropriate inferences while reading (Lingaraja, Mohan, Selvam, Raja, & Kathiravan, 2020).

Compared with previous studies, the present findings are generally consistent with recent international research reporting a positive relationship between vocabulary knowledge and reading comprehension among EFL learners. However, the correlation coefficient obtained in this study ($r = 0.398$) is lower than that reported in several previous investigations. This relatively weaker relationship may reflect differences in participant characteristics, sample size, assessment instruments, English proficiency levels, and the exclusive use of narrative texts as reading materials. In addition, reading comprehension at the university level involves increasingly complex cognitive processes that extend beyond vocabulary knowledge alone, thereby reducing the relative contribution of lexical knowledge to overall reading performance.

A distinctive contribution of this study lies in its focus on specific aspects of vocabulary knowledge, particularly semantic understanding reflected in synonyms, antonyms, and contextual meanings, rather than treating vocabulary mastery as a single general construct. This perspective provides a more nuanced understanding of how particular dimensions of vocabulary knowledge are associated with reading comprehension among university EFL learners. By emphasizing semantic vocabulary knowledge, the study extends previous research and offers additional evidence that different dimensions of vocabulary may contribute differently to successful reading comprehension (Okonkwo, Okafor, & Essell, 2022). From a pedagogical perspective, these findings suggest that vocabulary instruction in higher education should move beyond memorization of isolated word meanings and instead emphasize contextual vocabulary learning, semantic relationships, and explicit instruction in how words function within authentic texts. Integrating vocabulary development with reading activities, particularly through contextual analysis, semantic mapping, and inference-based reading tasks, may strengthen both lexical knowledge and reading comprehension simultaneously. Such instructional practices are expected to support students in developing more effective

reading strategies while expanding the depth of their vocabulary knowledge, thereby enhancing their overall academic reading proficiency.



Scatter Plot of Vocabulary Mastery and Reading Comprehension Correlation
($r = 0.398$, $p = 0.032$)

Figure 1. Scatter Plot of Vocabulary Mastery and Reading Comprehension Correlation

The Pearson correlation analysis yielded a correlation coefficient (r) of 0.398 with a significance value (p) of 0.032. Since the p -value (0.032) was below the significance threshold of 0.05, the null hypothesis (H_0 : there is no significant correlation between vocabulary mastery and reading comprehension) was rejected, and the alternative hypothesis (H_1 : there is a significant positive correlation between vocabulary mastery and reading comprehension) was accepted. (Taber, 2018) classification, an r -value of 0.398 is categorized as “weak to moderate,” indicating a positive but limited linear relationship between the two variables (Maria & Sujarwati, 2025).

The findings of this study confirm that vocabulary mastery is significantly correlated with reading comprehension of narrative texts among EFL university students. This result is consistent with several prior studies (Donoboyeva, 2025). Found a positive correlation ($r = 0.62$) between vocabulary mastery and reading comprehension at the secondary school level, which was stronger than the present finding (Permatasari, Sa, & Fahmi, 2025). Similarly confirmed a positive relationship, with students who scored higher on vocabulary tests also performing better in reading comprehension assessments. Further validated these results in a university EFL context, noting the predictive value of vocabulary knowledge for reading performance. The relatively moderate correlation ($r = 0.398$) in the present study, as compared to some prior studies, may be explained by several factors. First, the vocabulary test focused specifically on word class aspects (synonyms, antonyms, and contextual meanings), which represents only one dimension of vocabulary knowledge. Students may have possessed broader lexical knowledge not fully captured by this instrument. Second, students' relatively high reading comprehension scores (mean = 83.10) despite only fair vocabulary scores suggest that they effectively employed compensatory strategies such as contextual inference, background schema activation, and text structure knowledge to aid comprehension (Andriani, Bochari, & Mertosono,

2025). View that reading comprehension is a multidimensional skill supported by various linguistic and cognitive resources (Al Haddad, Hasaniyah, & Al Anshory, 2025).

Emphasize that the relationship between vocabulary and reading comprehension is mediated by the depth of word knowledge rather than merely the breadth of vocabulary. Students who understand word collocations, connotations, and grammatical functions are better equipped to construct accurate meaning from texts. This implies that instruction targeting deep word knowledge—including word class understanding—could produce stronger gains in reading comprehension than surface-level vocabulary memorization. The finding that 51.7% of students fell within the “Fair” vocabulary mastery category is a particularly noteworthy result that has direct pedagogical implications. It suggests that vocabulary instruction at the fourth-semester level may not yet be sufficiently focused on productive word class awareness and contextual word application. English lecturers are therefore encouraged to integrate explicit vocabulary instruction particularly focusing on synonyms, antonyms, and contextual meanings in authentic narrative text contexts into reading courses (Tanjung & Daulay, 2023).

Table 7. Comparison of the Present Study with Previous Related Studies

Researcher	Context	Focus	r-value	Result
Furqon (2013)	Secondary School	General Vocabulary & Reading	0.62	Significant
Bahri (2018)	Junior High School	Vocabulary & Reading Comp.	Not specified	Significant
Rahmah (2023)	University	Vocabulary & Reading Comp.	Not specified	Significant
Present Study (2022)	University (4th Sem.)	Word Class & Narrative RC	0.398	Significant

Table 7 presents a comparison between the findings of the present study and those of previous research investigating the relationship between vocabulary knowledge and reading comprehension. Overall, the findings consistently demonstrate that vocabulary knowledge is positively associated with reading comprehension across different educational contexts. Previous studies conducted by Furqon (2013), Bahri (2018), and Rahmah (2023) similarly reported significant positive relationships, suggesting that vocabulary knowledge remains a fundamental component of successful reading comprehension among EFL learners. Despite this consistency, the correlation coefficient obtained in the present study ($r = 0.398$) was lower than the coefficient reported by Furqon (2013) ($r = 0.62$). Several factors may explain this difference. First, the present study involved fourth-semester university students, whose reading comprehension is influenced not only by vocabulary knowledge but also by higher-order cognitive processes, including inferencing, critical thinking, discourse processing, and metacognitive reading strategies. Second, unlike previous studies that conceptualized vocabulary as a general construct, this study specifically examined semantic vocabulary knowledge through students' understanding of synonyms, antonyms, and contextual meanings within narrative texts. Such a more specific measurement may capture only one dimension of vocabulary knowledge, thereby producing a more moderate correlation with reading comprehension (Nor, Mwajuma, & Mohamed, 2021).

Another possible explanation concerns differences in research context and methodology. Variations in participant characteristics, sample size, English proficiency, assessment instruments, and text genres may influence the magnitude of the correlation

across studies. In the present study, reading comprehension was measured using narrative texts, which often allow readers to utilize contextual clues, story structure, and prior knowledge to construct meaning. Consequently, students may achieve relatively good reading comprehension even when their vocabulary knowledge remains at a moderate level. Taken together, these findings both confirm and extend previous research. Consistent with earlier studies, the present study provides evidence that vocabulary knowledge contributes significantly to reading comprehension. However, by focusing specifically on semantic aspects of vocabulary knowledge rather than vocabulary size alone, this study offers a more nuanced understanding of how particular dimensions of lexical knowledge support reading comprehension among university EFL learners. This contribution enriches the existing literature by demonstrating that vocabulary knowledge should be viewed as a multidimensional construct whose influence on reading comprehension depends on the specific aspect of vocabulary being measured and the educational context in which learning occurs.

4. CONCLUSION

This study demonstrates that vocabulary mastery is positively associated with reading comprehension among fourth-semester EFL students at Universitas Islam Malang. Although vocabulary knowledge contributes meaningfully to reading comprehension, the findings indicate that it represents only one component of a broader set of linguistic and cognitive factors that support successful reading. Students with stronger vocabulary knowledge generally exhibited better reading comprehension; however, effective comprehension also appears to depend on learners' ability to utilize contextual information, prior knowledge, and higher-order reading strategies. Theoretically, this study extends previous research by examining semantic aspects of vocabulary knowledge, particularly synonyms, antonyms, and contextual meanings, rather than treating vocabulary mastery as a single general construct. The findings contribute to the growing body of literature suggesting that different dimensions of vocabulary knowledge play distinct roles in supporting reading comprehension among university EFL learners.

Practically, the findings highlight the importance of integrating explicit vocabulary instruction with reading activities in higher education. EFL lecturers are encouraged to design learning experiences that promote contextual vocabulary learning, semantic awareness, and inference-making skills through authentic reading tasks. In addition, curriculum developers may consider incorporating systematic vocabulary development into reading courses to strengthen students' academic literacy and overall reading proficiency. This study has several limitations. First, the sample size was relatively small and involved participants from a single university, which may limit the generalizability of the findings. Second, the study employed a cross-sectional correlational design; therefore, causal relationships between vocabulary mastery and reading comprehension cannot be established. Finally, the study focused exclusively on narrative texts and semantic vocabulary knowledge, without examining other dimensions of vocabulary knowledge or additional factors influencing reading comprehension.

Future research is recommended to involve larger and more diverse samples from different educational institutions to improve the generalizability of the findings. Longitudinal studies are needed to investigate how vocabulary knowledge develops over time and influences reading comprehension across different stages of language learning. Experimental studies examining the effectiveness of vocabulary instruction programs are also recommended to identify instructional approaches that most effectively enhance reading comprehension. Furthermore, future studies should investigate other reading

genres, such as expository and argumentative texts, and employ more advanced statistical techniques, including multiple regression analysis or structural equation modeling (SEM), to examine the complex relationships among vocabulary knowledge, reading strategies, grammatical competence, and reading comprehension.

REFERENCES

- Abidin, A. (2023). Screen distractions and vocabulary gains in Memrise mobile-assisted vocabulary learning (MAVL) setting. *Journal on English as a Foreign Language*. <https://doi.org/10.23971/jefl.v13i2.6500>
- Al Haddad, A., Hasaniyah, N., & Al Anshory, A. M. (2025). Pengaruh Media Visual Terhadap Peningkatan Kosakata Bahasa Arab: Telaah Teoritis. *Jurnal Teknologi Pendidikan Dan Pembelajaran (JTPO)*.
- Alemi, M., & Tayebi, A. (2011). The Influence of Incidental and Intentional Vocabulary Acquisition and Vocabulary Strategy Use on Learning L2 Vocabularies. *Journal of Language Teaching and Research*. <https://doi.org/10.4304/jltr.2.1.81-98>
- Amir & dkk, N. I. (2024). Penguasaan Kosakata Bahasa Arab Siswa Sekolah Menengah Atas di Kabupaten Takalar. *PINISI ; Journal of Art, Humanity and Social Studies*.
- Andriani, N., Bochari, S., & Mertosono, S. R. (2025). Visualizing Words: The Effectiveness of Colored Pictures in Teaching Vocabulary. *Acuity: Journal of English Language Pedagogy, Literature, and Culture*.
- Ayana, H., Mereba, T., & Alemu, A. (2024). Effect of vocabulary learning strategies on students' vocabulary knowledge achievement and motivation: the case of grade 11 high school students. *Frontiers in Education*. <https://doi.org/10.3389/feduc.2024.1399350>
- Devinta Sadya Ratri. (2017). Pengembangan media my busy book pada pembelajaran keterampilan menyimak anak Kelompok TK A Singosari Kabupaten Malang. *Karya Ilmiah*.
- Donoboyeva, A. . (2025). Developing and testing research in instruments. *Pedagogical Sciences and Teaching Methods*.
- Hampu, L. O., & Fidinillah, M. A. (2023). The Corelation Vocabulary Mastery Toward The Result of Reading English. *Scope: Journal of English Language Teaching*. <https://doi.org/10.30998/scope.v8i1.18446>
- Hidayah, N., Sabarun, S., & Widiastuty, H. (2023). THE IMPLEMENTATION OF GAME BASED LEARNING (GBL) METHOD TO IMPROVE EFL STUDENTS' VOCABULARY MASTERY. *EDUSAINTEK: Jurnal Pendidikan, Sains Dan Teknologi*. <https://doi.org/10.47668/edusaintek.v11i2.1078>
- Huang, S., Hamdan, A. R. Bin, Hashim, A. T. B. M., & Zheng, M. (2024). Machine learning (ML) modelling techniques for mobile technology-integrated vocabulary learning on Chinese universities EFL students' adoption. *Journal of Autonomous Intelligence*. <https://doi.org/10.32629/jai.v7i4.920>
- Kwangmuang, P., Jarutkamolpong, S., Duangngern, P., Gessala, N., & Sarakan, P. (2024). Promoting analytical thinking skills development in elementary school students through animated cartoons. *Computers in Human Behavior Reports*. <https://doi.org/10.1016/j.chbr.2024.100467>
- Lee, T., & Shih, Y.-C. D. (2025). The Application of Wordwall.net in English Language Instruction for Young Learners: The Learning Motivation of Taiwanese Elementary School Third Graders. *Global Partners in Education Journal-Special*.
- Li, A., Mehra, V. M., Jones, C., Selk, A., Ray, J., Morson, N., ... Greenblatt, E. M. (2024). Building Healthy Babies: A Mixed-Methods Needs Assessment for a Pre-Conception

- Program in Ontario. *Journal of Obstetrics and Gynaecology Canada*. <https://doi.org/10.1016/j.jogc.2024.102417>
- Lingaraja, K., Mohan, C. J. B., Selvam, M., Raja, M., & Kathiravan, C. (2020). Exchange rate volatility and causality effect of Sri Lanka (LKR) with Asian emerging countries currency against USD. *International Journal of Management*. <https://doi.org/10.34218/IJM.11.2.2020.021>
- Lo, S. (2025). Viewing dual-subtitled videos under different learning conditions: effects on learners' behavioural, emotional, and cognitive engagement. *Computer Assisted Language Learning*. <https://doi.org/10.1080/09588221.2023.2219711>
- Manihuruk, D. H. (2020). The Correlation between EFL Students' Vocabulary Knowledge and Reading Comprehension. *JET (Journal of English Teaching)*. <https://doi.org/10.33541/jet.v6i1.1264>
- Maria, L., & Sujarwati, I. (2025). Short video TikTok in EFL: How does it impact students' vocabulary mastery. *Indonesian Journal of Educational Development (IJED)*. <https://doi.org/10.59672/ijed.v6i2.4721>
- Mumpuni, A., & Supriyanto, A. (2020). Pengembangan Kartu Domino Sebagai Media Pembelajaran Kosakata bagi Siswa Kelas V Sekolah Dasar. *Sekolah Dasar: Kajian Teori Dan Praktik Pendidikan*. <https://doi.org/10.17977/um009v29i12020p088>
- Nor, S. M., Mwajuma, J., & Mohamed, A. A. (2021). Determinants of Malnutrition among under five children in SOS Hospital, Mogadishu. *Elixir International Journal*.
- Okonkwo, E., Okafor, N., & Essell, O. (2022). THE EFFECT OF HUMAN RESOURCE PLANNING ON ORGANIZATIONAL PERFORMANCE: A STUDY OF SELECTED BREWERIES IN THE SOUTH-EAST, NIGERIA. *International Journal of Management & Entrepreneurship Research*. <https://doi.org/10.51594/ijmer.v4i1.280>
- Permatasari, I. D., Sa, H., & Fahmi, A. S. (2025). Journal of Qualitative and Quantitative Research Teknik Penyusunan Variabel , Instrumen Penelitian Dan Pengumpulan Data Dalam Penelitian Kuantitatif. *INTERDISIPLIN Journal of Qualitative and Quantitative Research*.
- Ramadani, S., Saiful, & Azis, A. (2021). THE CORRELATION BETWEEN STUDENT'S VOCABULARY MASTERY AND READING COMPREHENSION. *Journal of Language Testing and Assessment*. <https://doi.org/10.56983/jlta.v1i2.240>
- Septiana, A. R., & Hanafi, M. (2022). VOCABULARY MASTERY AND READING COMPREHENSION OF IT EDUCATION DEPARTMENT STUDENTS. *JURNAL EDUSCIENCE*. <https://doi.org/10.36987/jes.v9i2.3070>
- Signorell A, Aho K, Alfons A, Anderegg N, Aragon T, Arachchige C, & ve ark. (2024). R Package "DescTools". Tools for Descriptive Statistics. <https://Cran.r-Project.Org/>.
- Sugiyati, S., & Sujarwati, I. (2025). The Impact of the Snakes and Ladders Game on Students' Vocabulary. *International Journal of Innovation and Education Research*. <https://doi.org/10.33369/ijier.v4i1.40564>
- Sutopo, A., & Prayitno, H. J. (2020). The influence of vocabulary mastery, reading interest, and learning motivation toward translation skill. *Universal Journal of Educational Research*. <https://doi.org/10.13189/ujer.2020.080136>
- Taber, K. S. (2018). The Use of Cronbach's Alpha When Developing and Reporting Research Instruments in Science Education. *Research in Science Education*. <https://doi.org/10.1007/s11165-016-9602-2>
- Tanjung, A. P., & Daulay, S. H. (2023). Exploring Students' Perceptions of Using the Application Online Dictionary. *Jurnal Ilmu Pendidikan (JIP) STKIP Kusuma Negara*. <https://doi.org/10.37640/jip.v15i1.1671>
- Teng, M. F. (2025). Longitudinal analysis of breadth of vocabulary knowledge in mediating

- metacognitive knowledge and reading in foreign language young learners. *Reading in a Foreign Language*. <https://doi.org/10.64152/10125/67496>
- Wahid, A. H., Rozi, F., Baharun, H., & Safitri, S. L. (2021). THE MEMORIZE-SPEAK UP-HABITUATION METHOD AS AN EFFORT TO IMPROVE THE MASTERY OF FOREIGN LANGUAGE SKILLS. *Lentera Pendidikan : Jurnal Ilmu Tarbiyah Dan Keguruan*. <https://doi.org/10.24252/lp.2021v24n2i14>
- Wangdi, T., & Kachchhap, S. L. (2023). Rural and Urban Secondary Students Vocabulary Size and Vocabulary Learning Strategies in Practice: A Study in Bhutan. *Mextesol Journal*. <https://doi.org/10.61871/mj.v47n3-14>
- Yulianti, N. K. E. D. (2022). Pengaruh implementasi metode membaca berjenjang terhadap pemahaman membaca siswa kelas 2 setelah dikendalikan oleh kemampuan bahasa ibu. *Doctoral Dissertation, Universitas Pendidikan Ganesha*.
- Zahra, A. F., & Zuhri, F. (2025). Investigating the Correlation Between Vocabulary Knowledge and Reading Comprehension in Expository Text of Senior High School Students. *Jurnal Ilmiah Profesi Pendidikan*. <https://doi.org/10.29303/jipp.v10i4.3880>