

The Correlation Between Students' Vocabulary Mastery and Reading Comprehension Among Second-Semester English Education Students at UIN Mataram

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Abstract: Vocabulary mastery is considered one of the important factors that influence students' reading comprehension ability. This study aimed to investigate the correlation between vocabulary mastery and reading comprehension among second-semester students of the English Education Department at Islamic State University (UIN) Mataram. This research employed a quantitative correlational design involving 30 students selected through purposive sampling. The data were collected using a vocabulary test and a reading comprehension test. The data were analyzed using SPSS, including descriptive statistics, normality testing with the Shapiro-Wilk test, and Spearman Correlation analysis. The results revealed that the data were not normally distributed; therefore, Spearman Correlation was applied. The analysis showed a significant positive correlation between vocabulary mastery and reading comprehension ($r = 0.368$, $p = 0.045$), indicating a weak positive correlation. These findings suggest that students with better vocabulary mastery tend to have better reading comprehension ability. Therefore, vocabulary mastery plays an important role in supporting students' reading comprehension achievement.

Keywords: vocabulary mastery, reading comprehension, EFL learners, correlation, English education

INTRODUCTION

English is considered one of the most important international languages used in communication, education, technology, and social interaction. In the educational field, English has become an essential subject that students need to master because many academic sources are written in English (Kurniawan, 2024). One of the important skills in learning English is reading comprehension because students are required to understand various kinds of texts, such as articles, journals, and textbooks (Suhaila et al., 2025). However, many students still experience difficulties in understanding English texts due to their limited vocabulary knowledge. Vocabulary mastery is an important aspect in language learning because vocabulary helps students understand the meaning of words, sentences, and passages in a text. Without sufficient vocabulary mastery, students may face problems in comprehending reading materials effectively. Therefore, vocabulary mastery and reading comprehension are closely related in English learning (Ha, 2021).

At UIN Mataram, especially in the English Education Department, reading comprehension is one of the skills that students should master. Second-semester students are expected to understand academic reading materials written in English because they often use English references in their learning process. However, some students still face difficulties in understanding the content of English texts. They often find unfamiliar words while reading and become confused in interpreting the meaning of the text. In addition, some students

have difficulty identifying the main ideas and understanding detailed information in reading passages. These problems may occur because students have different levels of vocabulary mastery. Students who have better vocabulary knowledge tend to understand reading texts more easily than students who have limited vocabulary mastery. Therefore, vocabulary mastery may influence students' reading comprehension ability.

Several researchers have investigated the relationship between vocabulary mastery and reading comprehension among EFL learners. Brooks et al. (2021) stated that vocabulary knowledge plays an important role in supporting students' reading comprehension ability. Their study showed that vocabulary knowledge contributes significantly to learners' understanding of English texts. Similarly, Mubashir et al. (2025) found a significant correlation between vocabulary knowledge and reading comprehension among undergraduate EFL learners. Furthermore, Hartono and Prima (2021) also revealed that students with better receptive vocabulary knowledge tend to achieve better reading comprehension performance. However, most previous studies have focused on different educational contexts and participants, such as senior high school students or university students in general. Only a few studies have specifically investigated second-semester students in the English Education Department at UIN Mataram. Therefore, this study aims to fill this gap by investigating the relationship between vocabulary mastery and reading comprehension among

second-semester students in the English Education Department at UIN Mataram.

Based on the explanation above, the purpose of this research is to determine whether there is a significant correlation between students' vocabulary mastery and their reading comprehension among second-semester students of the English Education Department at UIN Mataram. This study also aims to identify the students' level of vocabulary mastery and reading comprehension ability. Furthermore, this research intends to analyze the relationship between the two variables in order to determine whether vocabulary mastery contributes to students' reading comprehension achievement. Through this study, the researcher expects to obtain clear information regarding the importance of vocabulary mastery in understanding English texts. Therefore, this research focuses on investigating the relationship between vocabulary mastery and reading comprehension among English Education students.

This research is expected to provide theoretical and practical significance in the field of English language learning. Theoretically, this study is expected to contribute to the development of knowledge related to vocabulary mastery and reading comprehension among EFL learners. Practically, this research may be useful for students because it can increase their awareness of the importance of vocabulary mastery in improving reading comprehension. For lecturers, the findings of this study may become a reference in selecting effective teaching strategies related to vocabulary and reading instruction. In addition, this research may help educational institutions understand students' difficulties in comprehending English texts. For future researchers, this study can be used as a reference for conducting similar research with different participants or variables. Therefore, this research is expected to provide valuable contributions to English language teaching and learning.

RESEARCH METHOD

This research applied a quantitative research design with a correlational approach. Quantitative research is used because the researcher aims to measure and analyze the relationship between two variables numerically. According to Creswell (2012), quantitative research is an approach for testing objective theories by examining the relationship among variables using numerical data and statistical analysis. In this study, the researcher investigates the correlation between students' vocabulary mastery as the independent variable (X) and reading comprehension as the dependent variable (Y).

The correlational design is applied because the researcher wants to determine whether there is a significant relationship between vocabulary mastery and reading comprehension among second-semester students of the English Education Department at UIN Mataram. This study does not involve treatment or experimental manipulation, but it focuses on analyzing the strength and direction of the relationship between the two variables.

The population of this research consists of second-semester students of the English Education Department at UIN Mataram. The researcher chooses second-semester students because they have learned English skills and frequently

interact with English reading materials during the learning process.

The sample of this study is selected using a purposive sampling technique. According to Louis Cohen (2016), purposive sampling is a sampling technique in which researchers select participants based on particular characteristics or purposes relevant to the study. The researcher selects students who meet the criteria of the research objectives. The sample of this study consisted of 30 second-semester students of the English Education Department at UIN Mataram who were selected using a purposive sampling technique. The instruments used in this research are vocabulary tests and reading comprehension tests. The vocabulary test is used to measure students' vocabulary mastery, while the reading comprehension test is used to measure students' ability to understand English texts. The tests consist of multiple-choice questions related to vocabulary and reading materials.

To ensure the quality of the instruments, the researcher conducts validity and reliability tests. Validity is used to determine whether the instrument measures what should be measured. According to (Tavakol & Dennick, 2011), validity refers to the accuracy and appropriateness of an instrument in measuring a particular concept. Reliability is used to determine the consistency of the instrument. The researcher uses SPSS to calculate the reliability coefficient using Cronbach's Alpha. An instrument is considered reliable if the Cronbach's Alpha value is greater than 0.70.

The data collection procedure in this research consists of several steps. First, the researcher asks permission from the lecturer and the institution to conduct the research. Second, the researcher prepares the vocabulary and reading comprehension tests as the research instruments. Third, the researcher administers the tests to second-semester students of the English Education Department at UIN Mataram.

After the students complete the tests, the researcher collects and scores the results based on the students' answers. Then, the data are organized and entered into SPSS software for statistical analysis. Finally, the researcher interprets the findings to determine the correlation between vocabulary mastery and reading comprehension.

The data in this research are analyzed quantitatively using SPSS (Statistical Package for the Social Sciences). First, descriptive statistics are used to calculate the mean and standard deviation in order to describe students' vocabulary mastery and reading comprehension achievement.

Second, the researcher uses Spearman Correlation to determine the relationship between vocabulary mastery and reading comprehension because the data were not normally distributed. According to Karl Pearson (1895), correlation analysis is used to measure the strength and direction of the relationship between two variables. If the significance value is lower than 0.05, the correlation is considered significant.

RESULT AND DISCUSSION

The descriptive statistics showed that the mean score of students' vocabulary mastery was 85.00 with a standard deviation of 14.797. Meanwhile, the mean score of reading comprehension was 78.33 with a standard deviation of 8.743.

These findings indicate that the students' vocabulary mastery was relatively high, while their reading comprehension ability was at a moderate level.

Variable	N	Mean	Standard Deviation
Vocabulary Score	30	85.00	14.797
Reading Score	30	78.33	8.743

Figure 1. Descriptive Statistics

Before conducting the correlation analysis, the researcher conducted a normality test using the Shapiro-Wilk test. The result showed that the significance values of Vocabulary Score (0.001) and Reading Score (<0.001) were lower than 0.05, which indicated that the data were not normally distributed. Therefore, the researcher used Spearman Correlation to analyze the relationship between the two variables.

The result of Spearman Correlation analysis showed that there was a significant correlation between students' vocabulary mastery and reading comprehension. The correlation coefficient was 0.368, which indicated a weak positive correlation. Moreover, the significance value was 0.045, which was lower than 0.05. Therefore, the alternative hypothesis (H_1) was accepted and the null hypothesis (H_0) was rejected.

Variables	Correlation Coefficient (r)	Sig. (2-tailed)	Interpretation
Vocabulary Score and Reading Score	0.368	0.045	Weak Positive Correlation.

Figure 2. Correlation Result

The findings of this research indicate that vocabulary mastery has an important role in supporting students' reading comprehension. The result of Spearman Correlation analysis showed that there was a significant correlation between vocabulary mastery and reading comprehension among second-semester students of the English Education Department at UIN Mataram. The correlation coefficient was 0.368, which indicated a weak positive correlation. This means that students who possess better vocabulary mastery tend to have better reading comprehension ability.

Vocabulary knowledge helps students understand the meaning of words, sentences, and information contained in reading texts. Students with sufficient vocabulary mastery are more capable of identifying main ideas, understanding detailed information, and interpreting the meaning of a text. On the other hand, students with limited vocabulary knowledge may experience difficulties in comprehending

English reading materials because they often encounter unfamiliar words.

The findings of this research are in line with the theory proposed by Nation (2006), who stated that vocabulary knowledge strongly influences learners' reading performance. In addition, Schmitt (2008) explained that vocabulary acquisition plays a significant role in language comprehension and academic reading success.

Furthermore, the result of this research is also consistent with previous studies conducted by Brooks et al. (2021) and Mubashir et al. (2025), which found that vocabulary mastery positively correlates with reading comprehension among EFL learners. These previous studies support the finding that vocabulary mastery is an important factor in improving students' understanding of English texts.

Based on the findings above, it can be understood that vocabulary mastery contributes to students' reading comprehension achievement. Therefore, students should improve their vocabulary knowledge in order to better understand English reading materials. In addition, lecturers are encouraged to apply effective vocabulary teaching strategies to support students' reading comprehension development.

CONCLUSION

Based on the findings of this study, it can be concluded that there is a significant positive correlation between students' vocabulary mastery and reading comprehension among second-semester students of the English Education Department at UIN Mataram. The result of Spearman Correlation analysis showed a correlation coefficient of 0.368 with a significance value of 0.045, indicating a weak positive correlation. This means that students with better vocabulary mastery tend to have better reading comprehension ability.

The findings suggest that vocabulary mastery plays an important role in supporting students' reading comprehension achievement. Therefore, students are encouraged to improve their vocabulary knowledge to enhance their understanding of English texts. In addition, lecturers should provide effective vocabulary learning activities to support students' reading development. Future researchers are recommended to conduct similar studies with larger samples and different variables to obtain more comprehensive findings.

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Author Contributions

Conceptualization, L.A.S.B.; methodology, L.A.S.B.; data collection, L.A.S.B.; formal analysis, L.A.S.B.; writing—original draft preparation, L.A.S.B.; writing—review and

editing, L.A.S.B. All authors have read and agreed to the published version of the manuscript.

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Conflicts of Interest

The authors declare no conflict of interest.

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