



## **The Correlation Between Students' Motivation and English Vocabulary Mastery: A Study at MIT Daarun Na'im Ambon**

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### **Abstract**

This study investigated the relationship between students' motivation and English vocabulary mastery among third-grade students at MIT Daarun Na'im Ambon. Using a quantitative approach with a correlational design, the study involved 36 students selected through simple random sampling. Data were collected using Gardner's Attitude/Motivation Test Battery questionnaire and vocabulary test scores. The results revealed that students demonstrated moderate motivation levels (mean = 52.92) and good vocabulary mastery (mean = 79.75). Spearman correlation analysis showed a very weak positive correlation ( $r = 0.133$ ,  $p > 0.05$ ) between motivation and vocabulary mastery, indicating no significant relationship between these variables. This finding challenges common beliefs about the direct relationship between motivation and language learning outcomes in young learners, particularly in Indonesian Islamic elementary schools. The study suggests that vocabulary learning in young students may depend on various factors beyond motivation, such as teaching methods and classroom environment. These insights can help teachers develop better vocabulary teaching strategies in similar school settings.

**Keywords:** *correlation study, EFL learners, language learning, motivation, vocabulary mastery*

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### **INTRODUCTION**

Motivation is crucial in second language acquisition, particularly in learning English as a foreign language (EFL). Recent research has increasingly emphasized the complex nature of motivation in language learning, with studies indicating that it accounts for up to 18-33% of variance in learning outcomes (Lamb, 2017). Utkir et al. (2020) assert that language learning goals are challenging without motivation, emphasizing its fundamental role in learning. Motivation in language learning has evolved from a simple construct to a dynamic system interacting with various psychological and environmental factors (Al-Hoorie, 2017). In language learning, motivation is typically categorized into two broad types: intrinsic and extrinsic (Ryan & Deci,

2020). Intrinsic motivation stems from personal interest and enjoyment in learning; extrinsic motivation relates to external rewards or practical benefits (Noels et al., 2019).

Alongside motivation, vocabulary knowledge stands as a fundamental component of language learning. Several studies have shown that vocabulary knowledge is a significant factor in overall language proficiency (Enayat & Derakhshan, 2021; Rafique et al., 2023; Schmitt et al., 2017; Tong et al., 2023). Amirzai (2021) emphasized that when learning a new language, students should have a vast vocabulary to apply their knowledge effectively across the four language abilities: listening, speaking, reading, and writing. The critical period for vocabulary acquisition has been extensively studied, with neurological research supporting that the optimal time for learners to acquire vocabulary is during their youth, as this ensures a sufficient grasp of the English language (Hartshorne et al., 2018). This finding is particularly relevant for elementary school contexts, where building a helpful vocabulary is central to learning a foreign language at the primary level (M. Alqahtani, 2015).

The intersection of motivation and vocabulary acquisition has gained renewed attention in recent years, particularly in diverse cultural contexts. The relationship between motivation and vocabulary acquisition has been the subject of numerous studies, with researchers consistently finding strong links between students' motivation and their ability to master vocabulary in a foreign language. Research by Ishaq (2021) demonstrates that integrative and instrumental motivation play crucial roles in second language vocabulary acquisition. Building on this foundation, a study by Gumartifa et al. (2020) found that motivated learners tend to employ a broader range of vocabulary learning strategies, leading to better vocabulary retention and use.

Several theoretical developments have emerged in recent years regarding the role of motivation in language learning. Researchers have identified new complexities in this relationship despite the established importance of motivation and vocabulary in language learning. Waninge et al. (2014) questioned the applicability of traditional motivational concepts in diverse cultural contexts, suggesting that motivation might operate differently in various learning environments. Additionally, Kidd et al. (2018) highlighted the complexity of vocabulary acquisition, noting that factors such as age, learning context, and individual differences could significantly impact the process. These theoretical considerations have particular relevance in the Indonesian context, where English learning occurs within a rich multilingual environment.

Based on a preliminary study at MIT Daarun Na'im Ambon with third-grade students in the Academic Year 2020/2021, observations revealed distinct patterns in English vocabulary learning. The students responded differently to vocabulary activities, including word-matching exercises and picture-word associations. Some students actively participated by raising their hands, answering questions, and volunteering for vocabulary practice, while others remained hesitant to engage with new English words. The teacher implemented varied instructional strategies such as vocabulary-building games, flashcard activities, and pair work exercises, complemented by a reward system that included verbal praise and achievement stars. Despite these approaches, several challenges were observed, such as inconsistent student engagement across different vocabulary topics, varying retention rates of new words, and uneven participation in group activities. These learning behavior patterns and varied motivation levels in vocabulary acquisition highlighted the need for a systematic investigation into the relationship between student motivation and vocabulary mastery.

Although extensive research has explored motivation and vocabulary acquisition, studies focusing on young learners in Indonesian elementary school contexts remain limited. Recent work by Sulistiyo et al. (2020) explored English language teaching challenges in Indonesian primary

schools, highlighting the need for more research on effective learning strategies. Studies on motivation and vocabulary in Indonesian contexts have primarily concentrated on secondary and tertiary levels. For instance, Fitriana et al. (2012) found significant positive correlations between learning motivation and vocabulary mastery at the junior high school level. At the university level, Ariyanti & Qomar (2017) demonstrated a moderate correlation between students' reading motivation and vocabulary mastery, while Wulandari (2021) found significant correlations between reading motivation and vocabulary mastery. Similarly, Haryadi (2022) revealed significant effects of learning motivation and vocabulary mastery on high school students' writing skills. While these studies provide valuable insights into the relationship between motivation and vocabulary acquisition at higher education levels, their findings may not directly apply to elementary-level learners with distinct learning characteristics and needs. This creates a significant knowledge gap in understanding how motivation influences vocabulary learning among elementary school students in Indonesia, particularly in the early stages of English language education.

To address this gap, the present study investigates the correlation between students' motivation and their English vocabulary mastery among third-grade students at the Islamic Elementary School Daarun Naim in Ambon, Indonesia. Specifically, this research addresses two key questions: 1) What are the level of third-grade students' motivation and their English vocabulary mastery at MIT Daarun Na'im Ambon? 2) Is there any significant correlation between students' motivation and their vocabulary mastery at MIT Daarun Na'im Ambon?

Based on these research questions and drawing from previous studies that suggest a positive relationship between motivation and vocabulary, this study proposes the following hypotheses:

- $H^a$ : There is a positive and significant correlation between students' motivation and their vocabulary mastery
- $H^0$ : There is no positive and significant correlation between students' motivation and their vocabulary mastery

## **LITERATURE REVIEW**

### ***The Concept of Motivation in Language Learning***

Recent theoretical frameworks have expanded our understanding of motivation in language learning beyond traditional cognitive approaches. The Complex Dynamic Systems Theory (CDST), as explored by Dornyei & Ryan (2015), suggests that motivation fluctuates over time and is influenced by multiple interacting factors within the learning environment. This dynamic perspective has led to new research methodologies that capture motivation's temporal and contextual nature, moving from static measurements to more sophisticated longitudinal approaches.

Contemporary research has also identified various sub-components of motivation that are particularly relevant to language learning. A study by Almusharraf (2020) has revealed that autonomous forms of motivation, which combine elements of both intrinsic and well-internalized extrinsic motivation, lead to more sustained engagement in language learning. Their research demonstrates that students who develop autonomous motivation show more remarkable persistence in language learning activities and achieve better long-term retention of linguistic knowledge.

### ***Vocabulary Mastery in English Language Learning***

Recent developments in vocabulary acquisition theory have highlighted the importance of understanding vocabulary knowledge as a multidimensional construct. Nation (2017) proposes that vocabulary knowledge encompasses not just form and meaning but also includes collocational knowledge, constraints on use, and conceptual understanding. Their research suggests that effective vocabulary instruction must address all these dimensions to facilitate deep learning and long-term retention.

A study by Biemiller et al. (2014) has revealed patterns in vocabulary acquisition that challenge traditional frequency-based approaches to vocabulary teaching. Their findings indicate that learners often acquire vocabulary in semantic networks rather than in isolation and that the connectivity of these networks plays a crucial role in vocabulary retention and retrieval. This understanding has led to new approaches in vocabulary instruction that emphasize semantic mapping and contextual learning over traditional memorization techniques.

### ***The Relationship Between Motivation and Vocabulary Mastery***

Research shows that motivation and vocabulary learning are connected in complex ways through internal and external factors. Students internally motivated to learn and genuinely interested in the material tend to remember vocabulary better and understand words more deeply. External motivation, like rewards and recognition, can also help students learn vocabulary, especially when using technology-based learning tools. Dehghanzadeh et al. (2021) found that digital tools like learning games and mobile apps create unique motivation patterns that significantly affect how students learn vocabulary. These digital platforms work well because they give students immediate feedback and rewards, which makes learning more engaging and enjoyable, leading to better vocabulary retention.

The social side of learning also strongly influences motivation and vocabulary mastery. When students work together on platforms encouraging interaction and friendly competition, they develop a sense of community and shared goals, boosting internal and external motivation (Al-Khazaali & Amirian, 2023). Personal factors like age, language ability, and cultural background also affect how motivation influences vocabulary learning, suggesting that teachers must adapt their strategies to different students' needs (Kidd et al., 2018).

## **METHODOLOGY**

### ***Research Design***

This study employed a quantitative approach with a correlational design, following current methodological frameworks in educational research (Creswell & Guetterman, 2024). As Cohen et al. (2017) point out, correlation methodology aims to disclose the relationship between variables and predict scores of one variable through scores in another. This design was selected for its ability to examine the strength and direction of relationships between variables while controlling for potential confounding factors (Johnson & Christensen, 2024). The study specifically employed a cross-sectional correlational design, which is appropriate for investigating relationships at a single point in time (McMillan, 2011).

### ***Population and Sample***

The research was conducted at MIT Daarun Na'im Ambon in 2020-2021. The study population comprised 75 third-grade students distributed across two classes (3A and 3B). Using a simple random sampling technique through a lottery method, class 3A was selected, resulting in a

sample of 36 students. This sampling approach ensured that each class had an equal probability of selection, maintaining the principles of probability sampling in educational research. The sample size was deemed appropriate for correlational studies in academic settings, as supported by sampling methodology literature (Singh & Masuku, 2014; Taherdoost, 2016).

### ***Research Instruments***

Two primary instruments were utilized in this study for data collection. The first instrument was a motivation questionnaire adapted from Gardner's Attitude/Motivation Test Battery (AMTB) (Gardner, 2004). The questionnaire contained 17 statements using a 5-point Likert scale, ranging from strongly disagree (1) to strongly agree (5). These statements were designed to measure two main categories of motivation: extrinsic motivation, which focuses on external rewards, grades, and recognition, and intrinsic motivation, which examines personal interest, enjoyment, and self-improvement. The second instrument consisted of students' vocabulary scores, obtained from their English vocabulary test results, which aligned with the school's standardized assessment system and grade-level expectations.

### ***Instrument Validation***

The validation process followed a comprehensive and systematic approach. Content validity was established through expert review by two qualified TEFL lecturers who evaluated items' relevance, clarity, and appropriateness while ensuring alignment with curriculum standards. Construct validity was assessed through pilot testing with 39 students in class 3B who shared similar characteristics with the target population. The pilot testing included item-total correlation analysis using Pearson Product Moment to evaluate item discrimination and difficulty levels. Results showed that all questionnaire statements were valid, with a significance value of  $0.001 < 0.05$ . The reliability of the instruments was determined through Cronbach's Alpha calculation, yielding a coefficient of  $0.997 > 0.6$ , indicating high reliability.

### ***Data Analysis***

Data analysis was conducted using SPSS version 27.0, incorporating descriptive and inferential statistical methods. The descriptive analysis included mean scores and standard deviation calculations to provide a comprehensive data distribution overview. Two distinct scales were employed to interpret the results. The motivation questionnaire scores were interpreted using a five-category scale ranging from low (17-28) to high (74-85). Vocabulary mastery scores were interpreted using the school's standard grading scale, ranging from very poor (0-54) to excellent (85-100).

**Table 1. Score Interval for Motivation**

<b>Score Range</b>	<b>Level</b>
73-85	Very High
59-72	High
45-58	Moderate
31-44	Low
17-30	Very Low

**Table 2. Score Interval for Vocabulary Mastery**

<b>Score Range</b>	<b>Category</b>	<b>Grade</b>
85-100	Excellent	A
75-84	Good	B
65-74	Fair	C
55-64	Poor	D
0-54	Very Poor	E

Prior to correlation analysis, prerequisite testing was performed to ensure the appropriateness of statistical methods. This included a normality assessment using the Kolmogorov-Smirnov test and a linearity evaluation through ANOVA. Based on these prerequisite test results, the appropriate correlation analysis method was selected between Pearson Product Moment correlation (for normally distributed data) or Spearman's Rank correlation (if normality assumptions were violated). This comprehensive methodological approach was designed to ensure robust and reliable results while maintaining research integrity throughout the study.

## **FINDINGS**

### ***Descriptive Statistical Analysis of Motivation and Vocabulary Mastery***

The study analyzed data from 36 third-grade students at MIT Daarun Na'im Ambon. Results from the motivation questionnaire revealed scores ranging from 18 to 85, with a mean score of 52.92 and a standard deviation of 22.598. Based on the established interpretation scale, this mean score falls within the "moderate" level (45-58), indicating that students generally maintained moderate motivation categories in their English vocabulary learning. The relatively high standard deviation suggests considerable variation in motivation levels among students.

In terms of vocabulary mastery, students demonstrated more robust performance overall. Scores ranged from 50 to 95, with a mean score of 79.75 and a standard deviation 12.704. According to the school's grading scale, this mean score falls within the "good" category (75-84), suggesting that students generally achieved satisfactory levels of vocabulary mastery. Compared to motivation scores, the lower standard deviation in vocabulary scores indicates more consistent performance across the student population.

**Table 3. Descriptive Statistics**

	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
Motivation	36	52.92	22.598
Vocabulary Mastery	36	79.75	12.704
Valid N (listwise)	36		

### ***Analysis of Prerequisites Tests***

Before conducting the correlation analysis, the data underwent rigorous testing for statistical assumptions. The Kolmogorov-Smirnov test was performed to assess the normality of data distribution. The results yielded a significance value of 0.001, which falls below the conventional threshold of 0.05. This finding indicates that the data does not follow a normal distribution pattern, suggesting the need for non-parametric statistical methods in subsequent analyses.

**Table 4. The Results of the Normality Test**

		Unstandardized Residual	
N		36	
Normal Parameters <sup>a,b</sup>	Mean	.0000000	
	Std. Deviation	12.65204097	
Most Extreme Differences	Absolute	.196	
	Positive	.113	
	Negative	-.196	
Test Statistic		.196	
Asymp. Sig. (2-tailed) <sup>c</sup>		.001	
Monte Carlo Sig. (2-tailed) <sup>d</sup>	Sig.	.001	
	99% Confidence Interval	Lower Bound	.000
		Upper Bound	.002

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. Lilliefors' method based on 10000 Monte Carlo samples with starting seed 2000000.

Following the normality test, a linearity assessment was conducted using ANOVA. The analysis revealed a significance value 0.209 for deviation from linearity, which exceeds the 0.05 threshold. This result indicates a linear relationship between the motivation variable and vocabulary mastery.

**Table 5. The Results of the Linearity Test**

			Sum of Squares	df	Mean Square	F	Sig.
Vocabulary Mastery * Motivation	Between Groups	(Combined)	2360.250	12	196.687	1.376	.246
		Linearity	46.155	1	46.155	.323	.575
		Deviation from Linearity	2314.095	11	210.372	1.471	.209
	Within Groups		3288.500	23	142.978		
	Total		5648.750	35			

### ***Correlation Analysis Between Motivation and Vocabulary Mastery***

Given the non-normal data distribution but confirmed linearity, the Spearman correlation test was selected as the most appropriate method for analyzing the relationship between motivation and vocabulary mastery. This non-parametric test allows for valid correlation analysis without requiring the assumption of normal distribution while still considering the linear relationship between variables.

The Spearman correlation analysis produced a correlation coefficient of 0.133 with a significance value (1-tailed) of 0.220. While the positive correlation coefficient suggests a slight

positive relationship between motivation and vocabulary mastery, the magnitude of this correlation is considered very weak. Moreover, the significance value exceeding 0.05 indicates that the relationship is not statistically significant at the conventional confidence level.

**Table 6. The Results of Correlation Analysis**

			Motivation	Vocabulary Mastery
Spearman's rho	Motivation	Correlation Coefficient	1.000	.133
		Sig. (1-tailed)	.	.220
		N	36	36
	Vocabulary Mastery	Correlation Coefficient	.133	1.000
		Sig. (1-tailed)	.220	.
		N	36	36

Based on the correlation analysis results, the study failed to reject the null hypothesis ( $H^0$ ), which stated that no positive and significant correlation exists between students' motivation and vocabulary mastery. The data did not support the alternative hypothesis ( $H^a$ ), which proposed a positive and significant correlation between these variables. This outcome suggests that, in this specific context, the relationship between student motivation and vocabulary mastery is not as straightforward or robust as expected.

The combination of a very weak correlation coefficient (0.133) and a non-significant p-value (0.220) provides strong evidence that, within this sample, motivation levels do not significantly predict or correlate with vocabulary mastery performance. These findings indicate that other factors may be more critical in determining vocabulary mastery among these third-grade students at MIT Daarun Na'im Ambon.

## DISCUSSION

This study investigated the relationship between students' motivation and English vocabulary mastery among third-grade students at MIT Daarun Na'im Ambon. Our findings revealed an unexpected outcome: despite theoretical predictions, no significant correlation was found between students' motivation and vocabulary mastery (correlation coefficient = 0.133,  $p > 0.05$ ). This result challenges established assumptions about motivation's role in language learning among young learners.

These findings differ from several recent studies in the field. For instance, A. F. Alqahtani (2020) found that students with higher motivation showed better vocabulary acquisition. Similarly, Prayugo et al. (2021) discovered that motivated learners retained vocabulary 30-60% better than their peers. However, our results align with Alonso & Fontecha (2014), who suggested that motivation's role in young learners' language development is more complex than previously believed, especially in multilingual settings. Supporting this perspective, Albodakh & Cinkara (2017) also found no significant relationship ( $p = 0.431 > 0.05$ ) between motivation and vocabulary size.

A closer analysis of our data reveals intriguing patterns. While we found no significant correlation, students achieved high vocabulary mastery scores (mean = 79.75) despite showing only moderate motivation levels (mean = 52.92). This disconnect suggests that other factors might play more crucial roles in vocabulary acquisition at this age. Butler (2019) supports this interpretation, proposing that teaching methodology, exposure frequency, and cognitive



development stage might influence young learners' vocabulary acquisition more strongly than motivation alone.

Several contextual factors may explain our findings. First, the unique environment of Indonesian Islamic elementary schools creates a distinct learning atmosphere that could affect how motivation influences language learning. Guay (2016) emphasizes that religious and cultural factors can significantly shape motivation's impact on language learning outcomes. Additionally, Asmali (2017) notes that young learners' motivation operates differently from older students, highlighting the importance of age-specific factors in language acquisition.

These findings have important implications for both theory and practice. Theoretically, our results suggest reconsidering how motivation works in young learners, particularly in specialized educational contexts. As Ryan & Deci (2020) argue, traditional motivational frameworks may need adaptation for different cultural and academic settings. Practically, teachers and curriculum designers might benefit from focusing on optimizing teaching methods and learning environments rather than solely emphasizing motivational strategies.

While our study offers valuable insights through its focus on an understudied context and rigorous methodology, we acknowledge certain limitations. Although appropriate for the context, our sample size ( $n=36$ ) limits generalizability. Moreover, as West & Michie (2020) point out, motivation changes over time, and our cross-sectional design captures only one moment in this dynamic process.

The absence of a significant correlation in our study does not diminish motivation's importance but suggests the need for a more nuanced understanding of how motivation works in specific contexts. Al-Hoorie (2017) emphasizes that motivation's influence on language learning interacts with various contextual and individual factors. Future research would benefit from longitudinal approaches to better understand these relationships (Alonso & Fontecha, 2014).

## **CONCLUSION AND SUGGESTION**

This study investigated the relationship between motivation and English vocabulary mastery among third-grade students at MIT Daarun Na'im Ambon, yielding findings that challenge the conventional understanding of motivation in language learning. Contrary to theoretical predictions, despite relatively high vocabulary performance scores, no significant correlation was found between students' motivation and vocabulary mastery. This unexpected outcome suggests that the relationship between motivation and language learning outcomes in young learners, particularly within Indonesian Islamic elementary schools, may be more complex than previously understood. The findings highlight the importance of considering context-specific cultural, religious, and developmental factors when examining language learning processes in specialized educational settings.

The implications of this study extend beyond theoretical contributions to practical applications in language education. While motivation remains an essential aspect of language learning, our findings suggest that educators and curriculum designers in similar contexts might need to consider a broader range of factors when developing vocabulary instruction strategies. Future research should explore the role of other variables that might influence vocabulary acquisition in young learners, particularly within Islamic educational settings. Additionally, longitudinal studies examining how the motivation-vocabulary relationship evolves could provide valuable insights for developing more effective teaching methodologies. This study ultimately contributes to a growing body of knowledge emphasizing the need for context-sensitive

approaches to understanding and facilitating language learning among young students in diverse educational environments.

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