

An Analysis of the Role of Vocabulary Mastery in the Poetry Writing Quality of Elementary School Students

Galang Budi Prakoso¹, Sumarwati^{2*}, Septi Yulisetiani³

^{1,2,3} Universitas Sebelas Maret, Indonesia

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Abstract

This study aims to analyze the relationship and contribution of vocabulary mastery to the quality of elementary school students' poetry writing, as well as to qualitatively analyze poetic characteristics in each dimension (appropriateness of content, richness of diction, sharpness of imagery, effectiveness of figurative language, and typography). Using a quantitative correlational design with an embedded qualitative approach, data were collected from fifth-grade students through a vocabulary mastery test and a poetry assessment rubric. Analysis using Spearman correlation and simple linear regression showed a significant positive relationship; vocabulary contributed 15.5% to the variation in overall poetry quality ($\rho = 0.383$, $R^2 = 0.155$, $p < 0.001$). The results of the analysis of each dimension revealed that sharpness of imagery and richness of diction had the strongest and most consistent relationship. Furthermore, a qualitative analysis of poetry excerpts confirmed that students with high vocabulary mastery were able to produce a richer and more layered variety of diction and figurative expressions. In conclusion, the role of vocabulary mastery varies across dimensions, so educators need to prioritize enriching sensory and connotative vocabulary to improve students' poetry writing skills.

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Corresponding Author:

Sumarwati

Universitas Sebelas Maret, Indonesia

Email Author: sumarwati@staff.uns.ac.id

INTRODUCTION

Writing poetry is an advanced language skill that supports elementary school students' linguistic development, aesthetic sensitivity, and symbolic thinking skills (Blake & Snapper, 2022; Reynaert et al., 2024). Children's poetic expression develops gradually alongside their broader language acquisition, as they learn to move beyond literal description toward the more condensed, evocative use of words that characterizes poetry. In line with that, Hubert et al. (2025) found that daily creative writing practice in elementary schools is related to children's cognitive development, including vocabulary and language fluency, particularly among students from diverse socioeconomic backgrounds. The Independent Curriculum places poetry as a mandatory genre within the writing element, with learning outcomes requiring students to express ideas

through appropriate word choice and aesthetic linguistic elements. Despite its important position in the curriculum, creative writing instruction in elementary schools still focuses on technical aspects such as structure and grammar. In contrast, more subtle dimensions such as richness of diction and figurative language have not received much empirical attention (Barton et al., 2024). Similar challenges also appear at higher levels: Irawan & Cahyan (2026) reported that Indonesian language teachers at the junior high school level still face high levels of technical language errors in students, as well as limited contextual and adaptive writing learning media, indicating that the problem of developing writing skills is cross-level.

A similar pattern appears in vocabulary teaching more broadly, where productive skills often receive less emphasis than receptive skills (Zeng et al., 2025), a gap that has direct implications for students' readiness to choose words appropriately when writing poetry. Rahmawati & Citrawati (2023) found that the main difficulty elementary school students face in writing poetry is finding and arranging the right words to express ideas. Kangasharju et al. (2024) reported that students tended to stick to the simplest poetic forms, such as rhyme, while more complex figurative language remained rare in both individual and collaborative writing. Van Gemert et al. (2022) clarify that this problem is conceptual, not merely lexical: students' greatest difficulty in writing poetry lies in choosing the right words to express the image or mood they wish to convey, not in understanding the rules of poetic form itself. A preliminary study conducted by researchers on fifth-grade students in several elementary schools also reinforces this picture: most students tend to understand writing poetry in the wrong way, namely by equating it with writing stories or ordinary prose, so that the resulting work tends to be a series of long narrative sentences without the density of meaning or the aesthetic elements of language that are characteristic of poetry. Overall, these findings indicate that elementary school students' difficulties in writing poetry are not merely structural problems, but center on the stage of selecting and arranging words to build ideas and images dense with meaning. Unlike narrative prose, which primarily conveys a sequence of events, poetic writing is characterized by density of meaning, deliberate diction, imagery, and figurative language within a compact structure, a distinction many of the observed students did not yet make.

Students' difficulty in stringing together poetic words cannot be separated from the linguistic demands inherent in poetry as a distinct form of writing. Unlike prose, poetry demands a density of meaning achieved through careful selection of diction, the creation of sharp imagery, and the effective use of figurative language (Durrant & Brenchley, 2019; Thomas et al., 2025), demands that are theoretically difficult to fulfill without adequate vocabulary mastery as lexical resources for students. Vocabulary can theoretically be understood through two complementary dimensions, namely vocabulary breadth and vocabulary depth (Allagui & Al Naqbi, 2024; Olinghouse & Wilson, 2013); this research measures vocabulary mastery in general, covering the ability to recognize synonyms, antonyms, and word meaning in sentence context, without separating the two dimensions. These constructs should be distinguished carefully. Vocabulary knowledge is simply the static store of words a person recognizes, whereas vocabulary mastery, as measured in this study, is the functional command of that store: recognizing, discriminating, and understanding words in context. Lexical access and diction, by contrast, concern the online process of retrieving and selecting words during production, and creative or poetry writing is the higher-order, text-level skill that draws on all three to build imagery and figurative meaning.

Vocabulary mastery is therefore a necessary lexical resource for diction and imagery, not a substitute for creative or poetic competence itself. Graham et al. (2024) added that exposure to literary texts allows students to interpret words more deeply than exposure to factual texts, indicating that vocabulary mastery is theoretically related to students' ability to choose diction, build imagery, and use figurative language in poetry.

Empirical evidence links lexical competence to the quality of elementary school students' writing: McCutchen et al. (2022) found that morphology-based vocabulary instruction improved students' ability to apply word meanings in writing; Wang et al. (2024) showed that word choice and related linguistic features were consistently linked to writing quality across genres; Pan et al. (2021), found that vocabulary size was linked to a range of cognitive and behavioral factors, while Meneses et al. (2023) showed that teachers' classroom vocabulary diversity was likewise related to students' literacy achievement. Cao & Kim (2024) found in a longitudinal study that vocabulary enrichment in literacy instruction predicted reading achievement two years later, and Cervetti et al. (2023)'s meta-analysis found that targeted vocabulary instruction consistently improved students' language skills, with more durable effects when words were taught in meaningful contexts. Among Indonesian fifth-graders specifically, Firmansyah et al. (2025) found that an integrated reading-and-writing literacy program improved elementary students' literacy skills. Together, these studies indicate that vocabulary mastery is consistently related to writing quality across teaching approaches, vocabulary size, and learning contexts. Within Indonesian language learning specifically, Gunawan (2019) and Kurniawati (2020) each found a significant relationship between vocabulary mastery and poetry writing ability, and Prihatin et al. (2022) found that vocabulary mastery, together with reasoning ability, was related to poetry writing skills, a pattern that aligns with Segundo-Marcos et al. (2025), who showed that children's lexical richness is related to their production of metaphor and other figurative language, since greater vocabulary richness allows more flexible conceptual associations that support figurative expression.

However, these studies have two limitations. First, most, including Wang et al. (2024) and Olinghouse & Wilson (2013), measure writing quality as a single composite score across genres, without dissecting vocabulary's relationship to specific poetic dimensions or accounting for poetry's distinctive density of meaning as a genre. Second, research on vocabulary's role in creative writing has focused mostly on foreign-language learners (Allagui & Al Naqbi, 2024; Pratiwi et al., 2024; Sung, 2025), so the findings do not necessarily generalize to first-language learners, as in this study. Even within the Indonesian studies above, Gunawan (2019), Kurniawati (2020) and Prihatin et al. (2022) found relationships of varying strength, suggesting the vocabulary-poetry link also depends on students' language maturity, yet none clarified which poetic dimensions are more or less strongly related to vocabulary mastery. What is known: vocabulary mastery is consistently and positively related to the quality of elementary school students' writing, including in the context of writing Indonesian poetry (Gunawan, 2019; Kurniawati, 2020; Prihatin et al., 2022). What has not been widely studied is which poetic dimensions, among the appropriateness of content, richness of diction, sharpness of imagery, effectiveness of figurative language, and typography, have a stronger or weaker relationship with students' vocabulary mastery, considering that poetry quality in previous studies has always been treated as a single score. This gap is important to address because generic vocabulary development strategies that target all dimensions of poetry at once risk being less targeted than strategies that focus on the most closely related

dimensions. At the same time, teachers do not yet have an empirical basis for determining these priorities. The choice of fifth-grade students (approximately 10–11 years old) as participants is also developmentally motivated: children's ability to comprehend and produce figurative language such as metaphor increases markedly by around 11 years of age compared with younger children (Willinger et al., 2019), suggesting that late elementary age is a developmentally appropriate window for examining how vocabulary mastery relates to the more figurative and image-dense dimensions of poetry writing. Given this gap, this study analyzed the relationship between vocabulary mastery and the quality of elementary school students' poetry writing, both overall and at the level of each poetic dimension.

The novelty of this research lies in the study which specifically involves elementary school students in learning Indonesian, as well as in analyzing the relationship between vocabulary mastery and the quality of poetry writing based on five separate poetic dimensions, namely the appropriateness of content, richness of diction, sharpness of imagery, effectiveness of figurative language, and typography, instead of treating poetry quality as a single combined score as in previous research (Kurniawati, 2020; Prihatin et al., 2022). This study also maps which dimensions of poetry have a stronger or weaker relationship with vocabulary mastery, providing a more specific picture that can inform teachers in designing vocabulary development as preparation for writing poetry, for example by prioritizing sensory and connotative vocabulary, which this study shows to relate most closely to imagery and diction, rather than distributing instructional time evenly across all five poetic dimensions. This study aims to: (1) describe the level of vocabulary mastery and the quality of poetry writing of fifth grade elementary school students; (2) analyze the relationship between vocabulary mastery and the quality of poetry writing, both overall and in each poetic dimension; (3) measure the extent of variation in the quality of poetry writing related to vocabulary mastery; and (4) describe the characteristics of diction, imagery, and figurative language used by students with different levels of vocabulary mastery through an analysis of excerpts from poetry works. Based on the theoretical basis and findings of previous research, this study hypothesizes a positive relationship between vocabulary mastery and the quality of poetry writing in each poetic dimension.

METHOD

This study uses a quantitative approach with a non-experimental correlational design as the main component because the vocabulary mastery variable is not manipulated but measured as it exists in students, without any treatment. This design is enriched with a descriptive-qualitative analysis component embedded in the data interpretation stage, in the form of an analysis of the characteristics of diction, imagery, and figurative language in excerpts from students' poetry works with different levels of vocabulary mastery. This qualitative component aims to enrich and clarify the meaning behind the statistically identified relationship patterns, but it is not carried out as an independent qualitative study with its own procedures and samples; therefore, this study remains classified as a dominant quantitative study with qualitative data as support for interpretation, following the embedded design model (Creswell & Plano Clark, 2018).

The study population was fifth-grade students of public elementary schools in Kartasura District, Sukoharjo Regency, Central Java, in the even semester of the 2025/2026 academic year. The study sample consisted of 84 students from four public elementary schools selected using

cluster random sampling techniques based on the school as the cluster unit. Cluster selection was carried out randomly from public elementary schools that met the qualifications set by the local Education Office. One additional school, not among the four selected schools, served as the trial location for the instrument, with a trial sample of 30 students. The four selected schools are located in one sub-district with relatively homogeneous socioeconomic characteristics, so generalization of the study results to a wider population requires caution. With a sample size of 84 students, this study has sufficient statistical power to detect a moderate correlation ($r \geq 0.30$) at $\alpha = 0.05$.

This study measured two variables. Vocabulary mastery (the independent variable) was operationalized as the score on a final 30-item multiple-choice post-test, which measured four indicators: synonyms, antonyms, meaning identification, and contextual meaning, using sentences with a natural scenery theme in line with the theme of the poems the students would write (see Table 1); the number of items in the initial trial phase is not reported separately in this article.

The quality of poetry writing (the dependent variable) was measured using a multidimensional rubric that included five aspects: appropriateness of content, richness of diction, sharpness of imagery, effectiveness of figurative language, and typography (see Table 2), reflecting the poem's density of meaning and linguistic elements (Durrant & Brenchley, 2019; Thomas et al., 2025). Each aspect is assessed using a four-level ordinal rubric (Level 1 = 5, Level 2 = 10, Level 3 = 15, Level 4 = 20), so that the total score for the five aspects is directly on a scale of 0-100 without requiring additional conversion; the rubric is therefore already structured as a 1-4 level scale, presented here in its raw achievement-score form rather than as recoded ordinal levels.

Table 1. Vocabulary Mastery Instrument Indicators

Indicator	Description	Item Numbers	Item Count
Synonyms	Determining a word with the same meaning (synonym) as the given word	1–6	6
Antonyms	Determining a word with the opposite meaning (antonym) of the given word	7–15	9
Meaning identification	Identifying the word that matches a given meaning description	16–22	7
Contextual meaning	Understanding word meaning within the context of a sentence	23–30	8
Total	Combined across all indicators	1–30	30

The validity of the vocabulary test was tested using point-biserial correlation ($r_{pbi} \geq 0.30$) and aligned with the Basic Competencies of Indonesian Language for Grade V of the Independent Curriculum, while its reliability was calculated using KR-20 ($r_{11} = 0.926$), classified as very high (Subhaktiyasa, 2024). These validity and reliability indices indicate that the retained thirty items adequately represent the four vocabulary indicators summarized in Table 1, providing a defensible basis for using the instrument to measure students' vocabulary mastery prior to the poetry-writing task. The following table presents the corresponding rubric used to assess students' poetry-writing quality across its five dimensions.

Table 2. Poetry Writing Rubric: Dimensions and Key Indicators

Dimension	Key Indicators	Score Range
Appropriateness of content	Title-content alignment; consistent theme development; content reflects the central idea; an integrated message conveyed throughout the poem	5-20
Diction richness	Contextually appropriate connotative/figurative words; concrete words evoking imagery; varied, non-repetitive word choice; word choice consistent with theme and mood	5-20
Imagery sharpness	Visual, auditory, tactile, and kinesthetic imagery	5-20
Figurative language effectiveness	Personification, simile, and metaphor	5-20
Typography	Lines written in poetic (non-prose) form; minimum of two stanzas; clear stanza breaks; neat and consistent layout	5-20

Note: Each dimension is scored on a four-level ordinal scale (5, 10, 15, or 20), so the maximum composite score across the five dimensions is 100.

The validity of the poetry assessment rubric was confirmed through expert judgment, while inter-rater reliability was measured by a two-way random Intraclass Correlation Coefficient (ICC) (Single Measures = 0.969; Average Measures = 0.984), both classified as very good.

Data collection occurred in one meeting per class: students took the vocabulary test first, then wrote poems on the same theme at the same time. This fixed order of work may have caused a priming effect, which is discussed further in the Limitations section. Two independent raters assessed the poetry using a pre-developed rubric, and the final score was the average of the two raters on each dimension.

Data were analyzed using IBM SPSS Statistics at a significance level of $\alpha = 0.05$. Prerequisite tests included normality (Shapiro-Wilk and Kolmogorov-Smirnov) and linearity; since both variables were not normally distributed ($p < 0.05$), the main hypothesis was tested using Spearman Rank Correlation, with interpretation of the strength of the relationship following Cohen's guidelines (1988; see also Funder & Ozer, 2019: $r \approx 0.10$ small; 0.30 medium; 0.50 large) adapted from Pearson's guidelines. Simple linear regression was used to estimate the overall variation in poetry quality that can be explained by vocabulary mastery, not to infer causal relationships, supplemented by Pearson's correlation as a sensitivity test and Cohen's f-squared ($f^2 = R^2/(1-R^2)$; 0.02 small, 0.15 medium, 0.35 large) for practical significance. At the level of the five dimensions of poetry, rho and the coefficient of determination (R^2) are reported as descriptive measures of the proportion of shared variation, rather than the full regression model, because F and the regression equation are not calculated separately per dimension. Since five tests were conducted in parallel, a Bonferroni threshold ($\alpha = 0.05/5 = 0.01$) is also reported; at this threshold, only the dimensions of imagery ($p < 0.001$) and diction ($p = 0.005$) remain significant, while figurative language ($p = 0.012$), appropriateness of content ($p = 0.034$), and typography ($p = 0.017$) are no longer significant at the corrected threshold.

The embedded qualitative components were systematically analyzed to maintain the credibility of the interpretation. Still, they were positioned as supplementary, illustrative data to help explain the quantitative findings, rather than as a stand-alone, independent qualitative study. The selection of six students followed an extreme case purposive sampling technique (Creswell & Plano Clark, 2018), that is, selecting cases at the extreme poles of vocabulary scores (highest and lowest) in the research sample to maximize variation and clarify patterns of contrast between

groups; these six students were not intended to represent the characteristics of the general population. Excerpts from the six students' poems, namely the same poems assessed in the quantitative stage, were analyzed through thematic coding (Braun & Clarke, 2006) into three categories: type of diction (concrete-sensory vs. abstract-general), type of figure of speech (personification, simile, or lack thereof), and genre awareness (structure resembling dense poetry or resembling narrative prose). Coding was conducted by the researcher and discussed with the same two raters at the quantitative assessment stage to maintain consistency of interpretation; because intercoder agreement coefficients (such as Cohen's kappa) were not formally calculated for this thematic coding, the results of the qualitative analysis were treated as descriptive illustrations that strengthen the interpretation of the quantitative findings, not as independent evidence equivalent to statistical testing.

RESULTS AND DISCUSSION

Results

The research results are presented sequentially, following the stages of analysis: a general overview of the data, testing statistical assumptions, testing correlational and regression hypotheses, and an analysis of the relationship between vocabulary mastery and each dimension of poetry quality, which is the main focus of this research.

Before testing the hypotheses, an overview of the characteristics of the two research variables is presented first to understand the initial conditions of the data. Table 3 summarizes descriptive statistics on students' vocabulary mastery and poetry writing quality.

Table 3. Descriptive Statistics of Research Variables

Variable	N	Minimum	Maximum	Mean (SD)
Vocabulary Mastery	84	26,67	96,67	64,96 (18,49)
Quality of Poetry Writing	84	30,00	82,50	53,21 (13,79)

Description: N = number of respondents; SD = Standard Deviation. The scores of the two variables use a scale of 0-100.

The average score of students' vocabulary mastery ($M = 64.96$; $SD = 18.49$) was classified as high, while the average score of poetry writing quality ($M = 53.21$; $SD = 13.79$) was in the medium category. The differences in the average categories of these two variables were then further explored through the distribution of categorizations in both variables.

To clarify the gap, the data is categorized based on the Ideal Mean and Ideal Standard Deviation into five levels, from very low to very high. Table 4 presents the frequency of the categorization results, and Figure 1 visualizes them. This categorization procedure converts the continuous mean scores into ordinal groups, making it easier to compare how students are distributed across performance levels for each variable, and specifically to examine whether a high level of vocabulary mastery is matched by an equally high level of poetry-writing quality. The frequency distribution in Table 4 and the accompanying bar chart in Figure 1 make this comparison visually explicit, showing at a glance whether the two variables share a similar overall shape or diverge across categories, before the two variables are examined jointly through correlation and regression analysis in the following section.

Table 4. Distribution of Research Data Categorization

Categories	Vocabulary (f)	Vocabulary (%)	Poetry Quality (f)	Quality of Poetry (%)
Very High	29	34,52	6	7,14
High	23	27,38	24	28,57
Medium	21	25,00	32	38,10
Low	11	13,10	22	26,19
Very Low	0	0,00	0	0,00

Remarks: Categorization based on Ideal Mean ($M_i=50$) and Ideal Standard Deviation ($SD_i=16.67$) from a maximum score of 100.

Table 4 shows that most students have vocabulary mastery in the high to very high category, but the same proportion is not apparent in the quality of their poetry writing. To visually clarify the distribution gap between the two variables, the results of this categorization are presented again as a bar chart in Figure 1 below.

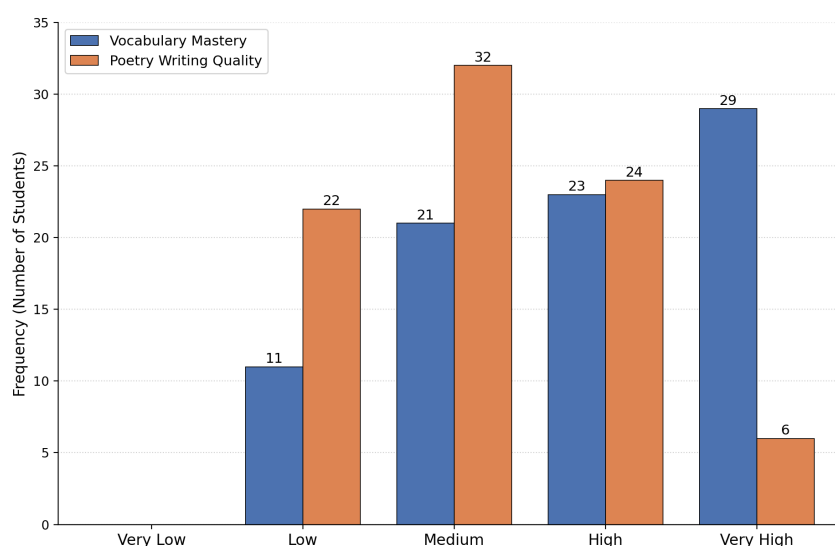


Figure 1. Distribution of Categorization of Vocabulary Mastery and Quality of Student Poetry Writing

While 61.90% of students were in the high to very high category for vocabulary mastery, only 35.71% achieved the same category for poetry writing quality. Figure 1 shows a shift in the distribution of poetry quality toward the medium and low categories, compared with the vocabulary distribution, which was more concentrated in the high category.

Before hypothesis testing, prerequisite tests were conducted to determine the appropriate statistical technique. Normality tests using Shapiro-Wilk and Kolmogorov-Smirnov showed that both variables were not normally distributed (vocabulary: $p = 0.026$; poetry quality: $p = 0.032$), although the skewness and kurtosis values were both within a reasonable range (between -1 and 1). Linearity tests confirmed a linear relationship between the two variables (Sig. Linearity = 0.000). Based on these results, hypothesis testing used the non-parametric Spearman Rank Correlation statistic, which does not require the assumption of normality, with Pearson correlation as a sensitivity test to confirm consistency between methods.

The relationship between vocabulary mastery and the quality of poetry writing is first visualized through a scatter diagram in Figure 2 before formal testing.

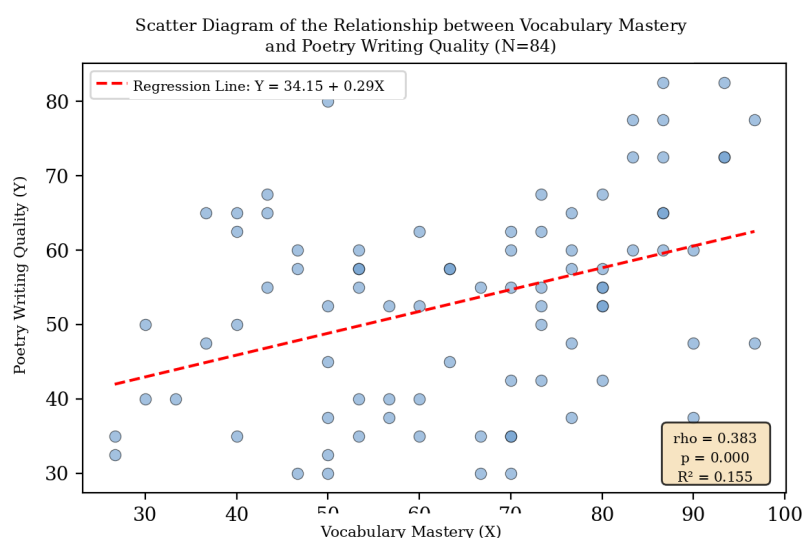


Figure 2. Scattering Diagram of the Relationship between Vocabulary Mastery and Poetry Writing Quality

The distribution of points in Figure 2 shows an upward trend from the bottom left to the top right, indicating a positive relationship between the two variables. However, the relatively wide distribution of points around the regression line indicates that the relationship is not very strong. This visual pattern is consistent with the results of the formal correlation test presented in Table 5.

To test the research hypothesis, the relationship between vocabulary mastery and the quality of poetry writing was examined in two stages: correlation testing and simple linear regression analysis, each presented separately below.

Table 5. Results of Correlation Test of Vocabulary Mastery and Quality of Poetry Writing

Statistics	Value
Spearman Correlation (ρ)	0,383; 95% CI [0.184; 0.552]
Pearson Correlation (r)	0,393; 95% CI [0.195; 0.560]
Significance (p)	0,000

Description: $N = 84$; significance level $\alpha = 0.05$; Pearson correlation is used as a sensitivity test.

The Spearman rank correlation showed a positive and significant relationship between vocabulary mastery and the quality of students' poetry writing ($\rho = 0.383$; $p = 0.000$), classified as moderate. Pearson Correlation as a sensitivity test produced a similar coefficient ($r = 0.393$; $p = 0.000$), indicating that this finding was consistent regardless of the test method used. To determine the extent to which vocabulary can quantitatively explain variation in the quality of students' poetry, the analysis continued with simple linear regression in Table 6 below.

Table 6. Results of Simple Linear Regression Analysis

Statistics	Value
Coefficient of Determination (R^2)	0,155
F Value	15,014 ($p = 0.000$)
Cohen's f^2	0.183 (medium category)
Regression equations	$\hat{Y} = 34.145 + 0.294X$

Description: X = vocabulary mastery; $\hat{Y}$ = prediction of the quality of poetry writing.

The regression results showed that vocabulary mastery explained 15.5% of the variation in the quality of students' poetry writing ($R^2 = 0.155$; $F = 15.014$; $p = 0.000$; Cohen's $f^2 = 0.183$, moderate category), with the regression equation $\hat{Y} = 34.145 + 0.294X$. Thus, the working hypothesis (H1), which states that there is a positive and significant relationship between vocabulary mastery and the quality of poetry writing, is accepted. The next analysis dissects this relationship at the level of each dimension of poetry quality.

In accordance with the research objective to dissect the relationship between vocabulary mastery and each poetic dimension separately, Spearman correlation analysis accompanied by a coefficient of determination (R^2) was conducted on all five dimensions of poetry quality, namely appropriateness of content, richness of diction, sharpness of imagery, effectiveness of figurative language, and typography. Because five tests were conducted in parallel on the same dependent variable, we also report a Bonferroni-corrected significance threshold ($\alpha = 0.05/5 = 0.01$) as an additional sensitivity analysis to the risk of Type I error inflation. Table 7 presents the results, and Figure 3 visualizes them.

Table 7. Correlation Results and Coefficient of Determination of Vocabulary Mastery by Dimension of Poetry Quality

Dimensions	rho	Sig.	R ²	Strength Categories
Imagery sharpness	0,426	0,000	0,182	Medium
Richness of Diction	0,306	0,005	0,094	Medium
Figurative Language Effectiveness	0,274	0,012	0,075	Small
Appropriateness of Content	0,232	0,034	0,054	Small
Typography	0,260	0,017	0,067	Small

Description: rho = Spearman's correlation coefficient; R^2 = coefficient of determination (squared correlation); $N = 84$; interpretation of power follows the guidelines of Cohen (1988): small (~ 0.10), medium (~ 0.30), large (~ 0.50); Bonferroni-corrected significance threshold $\alpha = 0.01$.

Table 7 shows that the strength of the relationship between vocabulary mastery and poetry quality is not uniform across the five dimensions, although all five are significant at $\alpha = 0.05$. Imagery clarity recorded the highest correlation coefficient ($\rho = 0.426$; $p < 0.001$; $R^2 = 0.182$; moderate category), followed by richness of diction ($\rho = 0.306$; $p = 0.005$; $R^2 = 0.094$; moderate category), and both remained significant at the Bonferroni-corrected threshold ($\alpha = 0.01$). The effectiveness of figurative language ($\rho = 0.274$; $p = 0.012$; $R^2 = 0.075$; small category), appropriateness of content ($\rho = 0.232$; $p = 0.034$; $R^2 = 0.054$; small category), and typography ($\rho = 0.260$; $p = 0.017$; $R^2 = 0.067$; small category) were also significant at $\alpha = 0.05$, but they were no longer significant after considering the Bonferroni correction for multiple testing; findings on these three dimensions therefore need to be interpreted with more caution than those on imagery and diction. Figure 3 below visualizes a comparison of the strength of the relationships between these dimensions. Taken together, these results suggest that vocabulary-focused interventions may yield the most consistent gains when they emphasize sensory and connotative vocabulary that feeds directly into imagery and diction, rather than being spread evenly across all five poetic dimensions. Because content, figurative language, and typography did not survive the stricter correction, any instructional claims about those three dimensions should be treated as preliminary until replicated with a larger or more diverse sample. The following discussion returns to these patterns in more depth, situating them within the broader theoretical and empirical literature on vocabulary and creative writing.

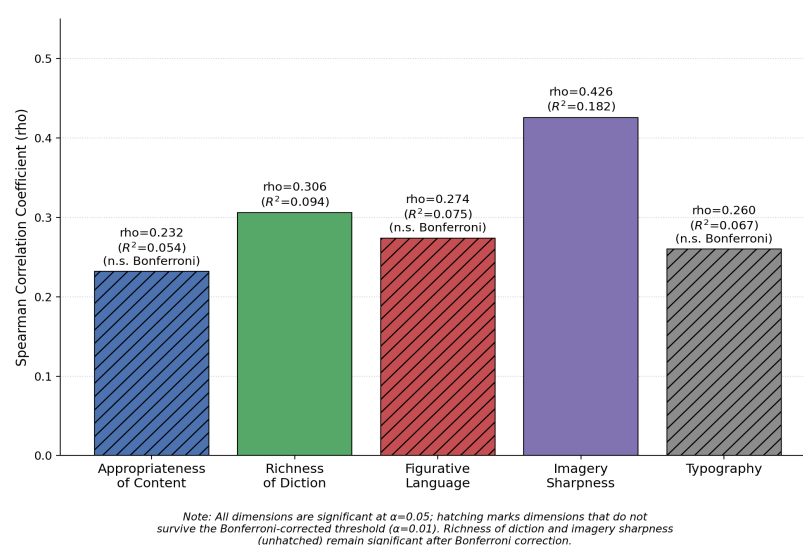


Figure 3. Comparison of the Strength of the Relationship between Vocabulary Mastery and Each Dimension of Poetry Quality

The differences in bar heights in Figure 3 visualize the gradient in strength of these relationships: imagery and diction (unshaded) appear more prominent and remain significant after Bonferroni correction, while content, figurative language, and typography (marked by the shaded pattern) fall within a close range and do not persist at the corrected threshold. To complement these quantitative findings, the next section presents a descriptive analysis of excerpts from students' poetry.

As supplementary, illustrative data to help explain the quantitative findings above, and not as an independent qualitative study, a descriptive analysis was conducted of poetry excerpts from six students representing contrasting vocabulary categories: three students with the highest vocabulary scores and three students with the lowest vocabulary scores in the research sample, drawn from different schools and groups to maintain diversity. The poems analyzed were the same as those assessed in the quantitative phase, namely one poem per student produced during the same data collection session. These six students were selected to clarify the contrasting patterns between vocabulary groups and were not intended to represent the characteristics of the entire student population in the research sample. Student identities were anonymized to protect students' personal data. In the high vocabulary group, the three students consistently produced more varied diction with layered figurative language, as seen in the following excerpt.

"...the dancing trees make the birds sing..."

This excerpt from one student in the high-vocabulary group combines personification with imagery of movement and sound in one line.

"...even the rain clouds are tired of crying... even the lightning is angry..."

Another student from the high vocabulary group produced a more complex double personification in the excerpt above, combined with emotional diction in the same stanza.

"The sun greets the village... the rice fields dance merrily..."

A third student from the same group also demonstrated an equal sensitivity to figurative language. The excerpt uses double personification, bringing two natural elements to life simultaneously with concise yet expressive diction.

In the low-vocabulary group, the dominant pattern is prosaic, literal writing, as seen in the following excerpt from one student.

"...my family and I played in the water... when I got home I immediately cleaned up and went straight to sleep, the next day I woke up late..."

The excerpt describes a vacation experience at the beach with family in a chronological, everyday narrative, without any condensed meaning, imagery, or figurative language, resembling a diary rather than poetry. However, other students with low vocabulary still showed sensitivity to basic figurative language, as seen in the following two excerpts.

"...the rice fields are green and dancing..."

The excerpt shows simple personification, similar to the first high-vocabulary student excerpt, although it does not develop into a layered figure of speech.

"...becoming black is as close as the sweetness of chocolate..."

Other students produced relatively typical similes in the above excerpts, although neither developed into a layered figure of speech as consistently found in the high vocabulary group. To summarize the thematic coding patterns across the three analysis categories (type of diction, type of figure of speech, and genre awareness) across cases, the results of the six excerpts are presented in Table 8 below.

Table 8. Cross-Case Thematic Coding Recapitulation

Student Code	Dominant Diction Types	Figurative Language Type	Genre Awareness
T1 (high vocabulary)	Concrete-sensory	Personification	Poetic
T2 (high vocabulary)	Concrete-sensory + emotional	Dual personification	Poetic
T3 (high vocabulary)	Concrete-sensory	Personification	Poetic
R1 (low vocabulary)	Abstract-general	None (narrative)	Prose
R2 (low vocabulary)	Concrete-sensory	Simple personification	Poetic
R3 (low vocabulary)	Concrete-sensory	Simile	Mix

Remarks: T code = high vocabulary group; R = low vocabulary group. Coding is carried out based on three thematic categories: diction type, figurative language type, and genre awareness.

Table 8 shows a more structured pattern than the observation of individual quotations. In terms of diction type, five of the six students used concrete-sensory diction, while only one student (R1) consistently used abstract-general diction, in line with his writing style resembling narrative prose; this concrete-sensory diction pattern was evident in both the high-vocabulary students and some of the low-vocabulary students (R2, R3). A more pronounced difference appeared in the types of figurative language: all three high-vocabulary students consistently produced personification, one of which was layered (T2), while the low-vocabulary students showed greater variation, ranging from no figurative language (R1) to simile (R3). In terms of genre awareness, four of the six students produced writing that structurally resembled poetry, one student (R1) resembled prose, and one student (R3) was in a mixed position. This pattern across the six cases

is consistent with the gradation in relationship strength found quantitatively in Table 7, particularly the greater strength of relationships between imagery and diction than between imagery and figurative language. As data from six students selected in contrast based on extreme case sampling, these patterns illustrate the quantitative findings. They are not intended as independent evidence beyond the correlational findings, nor as a comprehensive representation of the student population in this study. The Discussion section presents further interpretation of these thematic coding patterns.

Discussion

The main findings of this study indicate that vocabulary mastery is positively and significantly correlated with the overall quality of elementary school students' poetry writing ($\rho = 0.383$; $R^2 = 0.155$), meaning vocabulary is associated with approximately 15.5% of the observed variation in poetry quality. This moderate strength of relationship indicates that vocabulary is a relevant language element, but not the sole determinant of students' poetry quality. Theoretically, this relationship can be explained through the process of word selection (lexical retrieval) that underlies poetry writing: students with a wider vocabulary have a wider choice of words available in their lexical memory to be realized into poetic lines, while students with a limited vocabulary tend to rely on the most common and frequently repeated words, thus limiting the variety of poetic expressions produced. This pattern aligns with Durrant & Brenchley (2019), who found that vocabulary sophistication develops differently in each genre of children's writing, and with Thomas et al. (2025), who found that high-achieving students tended to produce richer figurative language in narrative writing. Compared with Gunawan (2019) in high school students ($r = 0.520$), the strength of the relationship in this study was lower, a reasonable difference given that high school students have more language maturity and writing experience than elementary school students, whose writing skills are still developing. A similar pattern was also reported by McCutchen et al. (2022) and Wang et al. (2024) in the English context, both of which found that vocabulary and word choice were closely related to the quality of elementary school students' writing across genres. These findings underscore the importance of vocabulary development as one, though not the only, prerequisite for students' poetry writing skills.

Among the five dimensions of poetry quality, imagery acuity showed the strongest relationship with vocabulary mastery ($\rho = 0.426$; $R^2 = 0.182$), and remained significant after Bonferroni correction for multiple testing. The nature of imagery itself can explain the strength of this relationship: constructing vivid imagery requires selecting concrete, sensory words that directly describe visual, auditory, tactile, or kinesthetic experiences. The cognitive processes involved are relatively proximal to vocabulary, as students need only recall denotative words directly available in their vocabulary, without requiring the additional layer of symbolic processing required by figurative language. This finding is consistent with the demands of poetic meaning density outlined in the Introduction (Durrant & Brenchley, 2019; Thomas et al., 2025), and in line with Pan et al. (2021), who found that the size of elementary school students' written vocabulary was closely related to various cognitive and behavioral factors, including the ability to describe experiences concretely. This pattern was also evident in the study's qualitative data: students with high vocabulary consistently combined both motion and sound imagery within a single line ("...the dancing trees made the birds sing..."), demonstrating the ability to utilize a broad sensory vocabulary to create layered imagery. The finding that imagery was the dimension with

the strongest associations has clear pedagogical implications: fostering a sensory, concrete vocabulary may most directly benefit students' ability to construct imagery in poetry.

Richness of diction showed the second-strongest relationship with vocabulary mastery ($\rho = 0.306$; $R^2 = 0.094$), and also persisted after Bonferroni correction, a pattern that makes conceptual sense given that diction is essentially a direct reflection of the breadth of a student's vocabulary. The more words mastered, the greater the variety of word choices available to avoid repetition and create richer nuances of meaning. However, the strength of this relationship is slightly lower than for imagery, which could theoretically be related to the additional demands placed on poetic diction: choosing effective diction requires not only knowledge of the denotative meaning of words, but also sensitivity to their accompanying connotations and emotional nuances, a layer of processing that does not necessarily develop in tandem with vocabulary breadth alone. This finding is relevant to Allagui & Al Naqbi (2024), who found that vocabulary size and lexical richness contribute to the quality of summary writing, as well as Olinghouse & Wilson (2013), who found a consistent relationship between vocabulary and writing quality across genres. Zeng et al. (2025) added that mastery of productive vocabulary, namely the ability to use words actively and appropriately in context, tends to be more related to the quality of writing than mere knowledge of receptive vocabulary. The qualitative data of this study also supports this pattern: five of the six students analyzed, both high vocabulary and some low vocabulary, were equally able to choose concrete-sensory diction, indicating that basic types of diction are relatively accessible across a wide range of vocabulary, while more subtle connotative variations appear more prominent in high vocabulary students.

Unlike imagery and diction, the effectiveness of figurative language showed a significantly weaker relationship with vocabulary mastery ($\rho = 0.274$; $R^2 = 0.075$; small category); this relationship was significant at $\alpha = 0.05$ but did not persist after Bonferroni correction, so it should be interpreted with caution. This pattern indicates that figurative language skills require something beyond mere word mastery. Theoretically, the use of figurative language such as personification and simile requires metaphorical thinking skills, namely the cognitive process of mapping similarities between two concepts that are literally unrelated (e.g., comparing rain to crying). This ability is likely related to the maturity of symbolic thinking that develops gradually and is relatively independent of the breadth of a student's vocabulary. Martín-González et al. (2024) found that children's understanding of metaphors develops gradually between the ages of 3 and 9 years, while Cheng et al. (2024) reported that children's metaphorical understanding continues to mature through stages that do not depend solely on vocabulary mastery. Gellel et al. (2024) added that a structured symbolic literacy approach can support early childhood metaphorical reasoning, indicating that figurative language skills may be more responsive to pedagogical interventions that directly target associative thinking rather than simply vocabulary enrichment. This pattern is consistent with the qualitative data of this study: all three high-vocabulary students consistently produced personifications, one of which was layered, while low-vocabulary students showed much greater variation, ranging from the absence of figurative language to the relatively typical use of similes, indicating that low vocabulary does not necessarily mean a lack of figurative language sensitivity.

Appropriateness of content also showed a significant relationship at $\alpha = 0.05$ but did not persist after Bonferroni correction ($\rho = 0.232$; $R^2 = 0.054$; small category), grouped with the

effectiveness of figurative language and typography as dimensions with a relatively weak relationship to vocabulary mastery, so it needs to be interpreted with great caution. This weak relationship can theoretically be explained by the nature of appropriateness of content, which relies more on the ability to develop and organize ideas (idea generation and structuring) rather than on vocabulary availability alone. A student can theoretically produce relevant and coherent ideas with a relatively limited vocabulary, or conversely have a broad vocabulary but struggle to develop coherent and thematically appropriate content. Barton et al. (2024) assert that creative writing is a multidimensional skill that cannot be reduced to a single variable. This view helps explain why vocabulary is not strongly related to the content dimension. Prihatin et al. (2022) found that reasoning ability played a role alongside vocabulary in explaining elementary school students' poetry writing skills, indicating that reasoning ability, which was not measured in this study, may theoretically be more strongly related to appropriateness of content than vocabulary mastery alone. The implication is that teachers need to be careful about assuming that vocabulary enrichment will automatically improve the depth and relevance of students' poetry content; coaching strategies that target the ability to develop ideas may be needed separately.

Typography also showed a significant relationship at $\alpha = 0.05$ but did not persist after Bonferroni correction ($\rho = 0.260$; $R^2 = 0.067$; small category), grouped with appropriateness of content and figurative language effectiveness as dimensions with relatively weak relationships to vocabulary mastery. This finding differs from initial expectations that typography, as a visual-structural decision such as stanza and line arrangement, would be completely unrelated to word choice; in this study's data, typography actually showed a weak, significant association at $\alpha = 0.05$, although it was fragile to multiple testing correction. This weak association could theoretically still be explained by the nature of typography, which relies more on structural awareness and visual conventions of poetry than on direct word choice; it is possible that students with a wide vocabulary also have more literary exposure to examples of poetry, and therefore are indirectly more familiar with the conventions of line arrangement. However, this relationship was not directly measured in this study. The implication is that developing the ability to organize the visual structure of poetry probably still needs to be taught explicitly, considering that its connection to vocabulary is much weaker and less consistent than imagery and diction.

The pattern of strength of the relationships found shows a fairly clear split between the two groups of dimensions: imagery sharpness and richness of diction show moderate relationships that persist after Bonferroni correction, while figurative language effectiveness, appropriateness of content, and typography show small relationships that do not persist at the corrected threshold, although all three remain significant at $\alpha = 0.05$. This pattern may reflect how much each dimension relies directly on word choice rather than on other cognitive or structural processes beyond vocabulary. The more directly "lexical" dimensions, namely imagery and diction, appear to be more strongly and consistently related to vocabulary, while dimensions that require additional layers of processing, such as metaphorical thinking for figurative language, the ability to organize ideas for appropriateness of content, or structural awareness for typography, show more fragile relationships and are sensitive to multiple testing correction. This pattern is in line with the view of Barton et al. (2024) that creative writing is a multidimensional skill that involves various cognitive and linguistic competencies simultaneously, and differs from the assumptions in some previous studies that treat vocabulary as a single predictor of writing quality in general

without examining its relationship to each dimension (Olinghouse & Wilson, 2013; Wang et al., 2024). This difference in approach also distinguishes this research from previous studies in the Indonesian context, such as Kurniawati (2020), Gunawan (2019), and Prihatin et al. (2022), which measure the quality of poetry or writing as a single score and thus cannot capture these kinds of dimension-specific patterns.

These dimension-specific findings make a theoretical contribution by showing that the relationship between vocabulary mastery and creative writing outcomes follows a pattern based on the extent to which each dimension relies directly on word choice. This contribution complements the understanding that has largely come from research examining vocabulary as a single predictor of general writing quality (Olinghouse & Wilson, 2013; Wang et al., 2024) and is conceptually consistent with the idea that different aspects of vocabulary may relate non-uniformly to language outcomes, as found by Chen & Zhang (2023) in the context of Mandarin reading comprehension. This study did not measure vocabulary depth separately from vocabulary breadth, so these findings are not intended as a direct extension of that framework. It is also worth clarifying what the poetry-writing rubric does and does not capture. The five dimensions assessed here (appropriateness of content, richness of diction, sharpness of imagery, effectiveness of figurative language, and typography) are observable textual features rather than direct measures of children's creativity, imagination, or emotional expression as separate psychological constructs. Higher scores on these dimensions may plausibly reflect a poem that is more creative, imaginative, or emotionally expressive, but this study did not measure creativity, imagination, or emotional expression independently, nor did it assess students' creative confidence or self-efficacy in writing poetry. Any connection between vocabulary mastery and these broader constructs should therefore be read as a theoretical possibility for future research, not as a finding of the present study.

On a practical level, the same pattern implies that vocabulary development in elementary schools should not be treated as a generic program that applies equally to all aspects of poetry writing skills. Indonesian language teachers need to pay special attention to developing sensory and connotative vocabulary, given their strong connection to imagery and diction, in line with the recommendations of McCutchen et al. (2022) that vocabulary instruction based on morphology and meaningful context is more effective than memorizing word lists. Concrete classroom activities could include building a sensory vocabulary bank around sight, sound, touch, and movement; semantic mapping of theme-related words; guided exploration of synonyms and their connotative differences; and word-to-image association exercises that ask students to picture a word before using it in a line of poetry. For the dimensions of figurative language, appropriateness of content, and typography, whose links to vocabulary are weaker and more susceptible to correction through multiple testing, coaching may need to be accompanied by exercises in metaphorical thinking, idea development, and explicit introduction of models of poetic structure, as suggested. Gellel et al. (2024) suggest a structured symbolic literacy approach. In other words, writing poetry should ideally not be treated as a single, imposed task, but rather as the outcome of a multidimensional development process that targets vocabulary as well as other accompanying cognitive competencies.

Several points should be considered when interpreting the results of this study. The sample is also limited to 84 fifth-grade students from four public elementary schools in one district, so the findings should not be generalized beyond this regional and grade-specific context. Interpreting

the qualitative excerpts also requires some caution, since elementary-age children's language is still developing, and what appears in a poem may understate or overstate their actual poetic understanding relative to older writers. The correlational design focuses on the relationship between vocabulary mastery and the quality of poetry writing, so future research could use a design that allows for a more in-depth examination of this relationship. In addition to vocabulary mastery, the quality of poetry writing is also related to various other abilities, such as the development of ideas and the use of figurative language, which could be of interest in future research. This study measured vocabulary using a multiple-choice test, whereas poetry-writing ability reflects productive language use. Future research could complement this measurement by examining vocabulary use in writing contexts. Analysis of excerpts from six students' work also provides supporting insights into the characteristics of diction, imagery, and figurative language that emerge at different levels of vocabulary mastery. Using more diverse work data in future research could broaden the picture of the relationship between vocabulary mastery and the quality of poetry writing.

CONCLUSION

This study concludes that there is a positive and significant relationship between vocabulary mastery and the quality of poetry writing in elementary school students. Quantitatively, vocabulary mastery was associated with approximately 15.5% of the variation in overall poetry quality ($p = 0.383$, $R^2 = 0.155$, $p < 0.001$), a moderate association rather than a causal effect, consistent with the correlational design of this study. The role of vocabulary mastery is not uniform, but varies across its dimensions. The strongest and most consistent relationship was found in the dimensions of imagery sharpness ($p = 0.426$) and richness of diction ($p = 0.306$), both of which remained significant after Bonferroni correction. In contrast, figurative language effectiveness, appropriateness of content, and typography showed weaker and less consistent relationships. This statistical pattern aligns with the qualitative analysis, which illustrated that students with high vocabulary mastery tended to produce a variety of concrete, sensory diction and more complex, layered figurative expressions, while students with limited vocabulary tended to produce more prosaic and literal writing. These findings are drawn from 84 fifth-grade students in four public elementary schools in Kartasura District, Sukoharjo Regency, Central Java, during the 2025/2026 academic year, and should be interpreted within this regional and grade-specific context rather than generalized to elementary school students more broadly. This study contributes to the field of Indonesian language education by showing that vocabulary enrichment for poetry writing should be targeted rather than generic: because imagery and diction show the closest and most consistent association with vocabulary mastery, poetry writing instruction may benefit most from prioritizing the development of sensory and connotative vocabulary, while the effectiveness of figurative language, appropriateness of content, and typography may require complementary instructional strategies beyond vocabulary enrichment alone. More broadly, enriching students' vocabulary for poetry writing can be viewed as one component of cultivating elementary school students' wider appreciation of literary and aesthetic uses of language.

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Galang Budi Prakoso: Conceptualization, Data Curation, Formal Analysis, Investigation, Methodology, Resources, Software, Visualization, Writing – Original Draft.

Sumarwati: Supervision, Validation, Writing – Review & Editing.

Septi Yulisetiani: Supervision, Validation, Writing – Review & Editing.

DECLARATION OF COMPETING INTEREST

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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ETHICS STATEMENT

This study did not require formal ethical approval. All participants provided voluntary informed consent and no sensitive personal data were collected.

DECLARATION OF GENERATIVE AI AND AI-ASSISTED TECHNOLOGIES IN THE WRITING PROCESS

During the preparation of this manuscript, the author(s) used AI assistance in order to help improve grammatical structure, improve sentence readability, and tidy up writing drafts. After using this tool, the author(s) reviewed, re-edited, and take(s) full responsibility for the entire content, originality, and accuracy of the manuscript of this publication.

REFERENCES

- Allagui, B., & Al Naqbi, S. (2024). The contribution of vocabulary knowledge to summary writing quality: Vocabulary size and lexical richness. *TESL-EJ*, 28(1).
- Barton, G., Khosronejad, M., & Ryan, M. (2024). Teaching creative writing in primary schools: A systematic review of the literature through the lens of reflexivity. *The Australian Educational Researcher*, 51, 1311–1330. <https://doi.org/10.1007/s13384-023-00641-9>
- Blake, J., & Snapper, G. (2022). Poetry in education. *English in Education*, 56(1), 1–4. <https://doi.org/10.1080/04250494.2022.2030974>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Cao, Y., & Kim, Y.-S. G. (2024). Longitudinal relations between literacy instruction and early reading achievement: Findings from classroom observations in Grades 1-3. *Reading and Writing*.

- Cervetti, G. N., Fitzgerald, M. S., Hiebert, E. H., & Hebert, M. (2023). Meta-analysis examining the impact of vocabulary instruction on vocabulary knowledge and skill. *Reading Psychology, 44*(6), 672–709. <https://doi.org/10.1080/02702711.2023.2189679>
- Chen, T., & Zhang, D. (2023). Different aspects of vocabulary depth knowledge in L2 Chinese reading comprehension: Comparing higher- and lower-proficiency readers. *Foreign Language Annals, 56*(3), 786–806. <https://doi.org/10.1111/flan.12687>
- Cheng, L., Guan, C., Zhang, C., Zhan, L., Liu, Y., Wang, X., Yu, X., & Peng, G. (2024). An empirical study on the development of metaphorical comprehension of Chinese children. *Frontiers in Psychology, 14*, 1254129. <https://doi.org/10.3389/fpsyg.2023.1254129>
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Lawrence Erlbaum Associates.
- Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research* (3rd ed.). SAGE Publications.
- Durrant, P., & Brenchley, M. (2019). Development of vocabulary sophistication across genres in English children's writing. *Reading and Writing, 32*(8), 1927–1953. <https://doi.org/10.1007/s11145-018-9932-8>
- Firmansyah, F., Utami, F. D., Arianti, N., Fatimah, I., Mahbudin, & Puspita, R. D. (2025). The GEMBIRA Program: A deep learning-based model to enhance literacy skills in primary education. *PrimaryEdu: Journal of Primary Education, 9*(2), 17–29. <https://doi.org/10.22460/pej.v9i2.6220>
- Gellel, A.-M., Deguara, J., & Formosa, J. (2024). Supporting young children's metaphorical engagement through a Symbol Literacy Approach. *Journal of Early Childhood Literacy, 22*(3). <https://doi.org/10.1177/1476718X241231671>
- Graham, S., Milton, J., & Marsden, E. (2024). Literature and second language vocabulary learning: The role of text type and teaching approach. *The Modern Language Journal*. <https://doi.org/10.1111/modl.12946>
- Gunawan, G. (2019). Hubungan penguasaan kosakata dengan kemampuan menulis puisi pada siswa kelas X IIS SMA Negeri 1 Cigudeg Bogor. *El Banar, 2*(1), 36–43.
- Hubert, C., Bonnardel, N., & Frey, A. (2025). Effects of daily creative writing practice at school on the cognitive development of children from disadvantaged socio-economic backgrounds. *Thinking Skills and Creativity, 58*, 101881. <https://doi.org/10.1016/j.tsc.2025.101881>
- Irawan, D., & Cahyan, Y. (2026). Media ajar digital berbasis kearifan lokal kasumedangan: Analisis kebutuhan guru untuk pembelajaran menulis berpendekatan deep learning. *Semantik, 15*(1), 33–44.
- Kangasharju, A., Ilomäki, L., Lakkala, M., & Toom, A. (2024). Online poetry writing at school: Comparing lower secondary students' experiences between individual and collaborative poetry writing. *Frontiers in Education*. <https://doi.org/10.3389/feduc.2024.1380790>

- Kurniawati, W. (2020). Aspek penguasaan kosakata bahasa Indonesia oleh siswa sekolah dasar di Kota Medan. *Ranah: Jurnal Kajian Bahasa*, 9, 386–399. <https://doi.org/10.26499/rnh.v9i2.2977>
- Martín-González, I., Ronderos, C. R., Castroviejo, E., Schroeder, K., Lossius-Falkum, I., & Vicente, A. (2024). That kid is a grasshopper! Metaphor development from 3 to 9 years of age. *Journal of Child Language*. <https://doi.org/10.1017/S0305000924000187>
- McCutchen, D., Northey, M., Herrera, B. L., & Clark, T. (2022). What's in a Word? Effects of Morphologically Rich Vocabulary Instruction on Writing Outcomes among Elementary Students. *Reading and Writing*, 35(2), 325–351. <https://doi.org/10.1007/s11145-021-10184-z>
- Meneses, A., Uccelli, P., & Valeri, L. (2023). Teacher talk and literacy gains in Chilean elementary students: Teacher participation, lexical diversity, and instructional non-present talk. *Linguistics and Education*, 73, 101145. <https://doi.org/10.1016/j.linged.2022.101145>
- Olinghouse, N. G., & Wilson, J. (2013). The relationship between vocabulary and writing quality in three genres. *Reading and Writing*, 26(1), 45–65. <https://doi.org/10.1007/s11145-012-9392-5>
- Pan, N., Guo, J., Ma, X., Fan, D., Yin, Y., Xu, X., Cai, W., Zhang, X., & Li, T. (2021). The correlation between Chinese written vocabulary size and cognitive, emotional and behavioral factors in primary school students. *International Journal of Environmental Research and Public Health*, 18(15), 7797. <https://doi.org/10.3390/ijerph18157797>
- Pratiwi, D. I., Fitriati, S. W., Yuliasri, I., & Waluyo, B. (2024). Flipped classroom with gamified technology and paper-based method for teaching vocabulary. *Asian-Pacific Journal of Second and Foreign Language Education*, 9(1). <https://doi.org/10.1186/s40862-023-00222-4>
- Prihatin, P., Slamet, S. Y., & Budiharto, T. (2022). Studi hubungan antara penguasaan kosakata dan kemampuan penalaran dengan keterampilan menulis puisi pada peserta didik kelas IV sekolah dasar. *JPI (Jurnal Pendidikan Indonesia): Jurnal Ilmiah Pendidikan*, 6(4), 14–19. <https://doi.org/10.20961/jpiuns.v6i4.60188>
- Rahmawati, D., & Citrawati, T. (2023). Jenis kesulitan menulis puisi bagi peserta didik di sekolah dasar. *DIDAKTIS: Jurnal Pendidikan Bahasa Dan Sastra Indonesia*, 1(2), 45–52.
- Reynaert, V., Possik, J., Demarey, C., Kieken, D., Abert, B., & De Witte, B. (2024). Immersive poetry learning: A field study with middle school students. *Frontiers in Education*, 9, 1463635. <https://doi.org/10.3389/educ.2024.1463635>
- Segundo-Marcos, R., López Fernández, V., & Daza González, M. T. (2025). Creative thinking and lexical richness development and the impact of cooperative learning over time. *The Journal of Creative Behavior*. <https://doi.org/10.1002/jocb.70054>
- Subhaktiyasa, P. G. (2024). Evaluasi validitas dan reliabilitas instrumen penelitian kuantitatif: Sebuah studi pustaka. *Journal of Education Research*, 5(4), 5599–5609.
- Sung, H. (2025). Lexical richness in young English learners' writing: A focus on opinion and listen-write task types. *International Journal of Educational Development*, 117, 103340.

- Thomas, D. P., Walton, J., Tann, K., Shoecraft, K., Lowien, N., & Scott, A. (2025). Figurative language and narrative writing: Insights from high-achieving primary school students. *The Australian Educational Researcher*. <https://doi.org/10.1007/s13384-025-00890-w>
- Van Gemert, L., Kangasharju, A., Ilomäki, L., & Toom, A. (2022). Lower secondary students' poetry writing with the AI-based Poetry Machine. *International Journal of Child-Computer Interaction*. <https://doi.org/10.1016/j.ijcci.2022.100440>
- Wang, E., Kim, Y.-S. G., & Cho, B.-Y. (2024). Linguistic features and writing quality: An analysis of fourth graders' compositions. *Written Communication*, 41(1), 89–118. <https://doi.org/10.1177/07410883231187234>
- Willinger, U., Deckert, M., Schmöger, M., Schaunig-Busch, I., Formann, A. K., & Auff, E. (2019). Developmental Steps in Metaphorical Language Abilities: The Influence of Age, Gender, Cognitive Flexibility, Information Processing Speed, and Analogical Reasoning. *Language and Speech*, 62(2), 207–228. <https://doi.org/10.1177/0023830917746552>
- Zeng, Y., Kuo, L.-J., Chen, L., Lin, J.-A., & Shen, H. (2025). Vocabulary instruction for English learners: A systematic review connecting theories, research, and practices. *Education Sciences*, 15(3), 262. <https://doi.org/10.3390/educsci15030262>