

Predicting Narrative Essay Writing Ability through Grammar Awareness and Critical Thinking Skills: Evidence from Indonesian EFL Vocational High School Students

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Abstract

This exploratory study examined the relationships among grammar awareness, critical thinking skills, and narrative essay writing ability among Indonesian EFL vocational high school students. Using a quantitative correlational design, data were collected from 35 tenth-grade students in one intact class at a vocational high school in Tangerang, selected through purposive sampling, using a grammar awareness test, a critical thinking test, and a narrative essay writing task, all validated through expert judgment and empirical testing. Data were analyzed using Pearson Product-Moment Correlation and Multiple Linear Regression. The results indicated significant positive correlations between grammar awareness and narrative writing ability ($r = .649$, $p < .01$) and between critical thinking skills and narrative writing ability ($r = .687$, $p < .01$). Grammar awareness and critical thinking skills jointly predicted narrative essay writing ability, explaining 54% of the variance ($R^2 = .540$, Adjusted $R^2 = .511$), with critical thinking emerging as the stronger predictor ($\beta = .458$) compared to grammar awareness ($\beta = .347$). Given the limited sample drawn from a single intact class, these findings should be interpreted as exploratory evidence rather than a broad generalization. Nonetheless, the results suggest that effective narrative writing draws on both linguistic competence and higher-order thinking skills. Accordingly, EFL writing instruction at the vocational level may benefit from integrating grammar instruction with activities that foster critical thinking.

Keywords: *critical thinking skills, EFL writing, grammar awareness, narrative essay, vocational high school students*

Introduction

In vocational high school education, English writing is not only an academic requirement but also part of learners' preparation for workplace communication, which makes written proficiency, including narrative writing, a practically relevant instructional target (Sujana et al., 2024). Writing itself is widely regarded as one of the most challenging language skills in English as a Foreign Language (EFL) learning because it requires learners to integrate linguistic knowledge, cognitive processing, and communicative competence simultaneously, reflecting students' overall language proficiency and higher-order thinking abilities (Hyland, 2003; Weigle, 2002). Within the Indonesian context, writing instruction, including at the vocational level, has gained increasing importance under the Merdeka Curriculum, which emphasizes meaningful learning, critical

reasoning, and learner autonomy. Among the genres taught at the secondary level, narrative writing holds a significant position because it requires learners to integrate language knowledge with cognitive processes in order to produce texts that are coherent, meaningful, and engaging for readers.

Despite its importance, narrative writing remains one of the most challenging areas for Indonesian EFL learners, who frequently struggle to generate ideas, organize events logically, maintain coherence, and apply grammatical structures appropriately (Falihah et al., 2022). These difficulties appear even more pronounced at the vocational level, where limited instructional time is allocated to English relative to vocational subjects and where students' motivation to write is often shaped by the perceived relevance of English to their future occupational field rather than to academic literacy (Sujana et al., 2024; Ferdaus & Novita, 2023). Such difficulties suggest that successful narrative writing depends on multiple factors beyond language knowledge alone, making it important to identify the variables that contribute to students' writing performance in this specific educational setting.

This policy emphasis is directly relevant to narrative writing because the genre inherently demands the kind of higher-order thinking that the Deep Learning approach targets: writers must determine which events are relevant, establish causal relationships among them, and evaluate the coherence of the resulting sequence before those events can be rendered into grammatically accurate sentences (BSKAP, 2025; Kemendikdasmen, 2025; Rahmawati et al., 2025; Sujana et al., 2024). In other words, the curriculum's push toward analysis, problem-solving, and authentic communication converges with what narrative composition already requires cognitively, namely processes of analysis, inference, and evaluation that are core dimensions of critical thinking (Anggraeni et al., 2025; Stevani & Saragi, 2025; Suharno & Setyarini, 2021; Verawati et al., 2024). English instruction is therefore increasingly expected to develop critical thinking alongside linguistic competence rather than treating the two as separate instructional strands (Emawati et al., 2024; Ferdaus & Novita, 2023).

One factor consistently associated with writing performance is grammar awareness, which in this study refers specifically to learners' conscious, metalinguistic understanding of grammatical structures and their ability to recognize, monitor, and self-correct grammatical rules in communicative contexts. This construct is conceptually distinct from grammar competence or grammar mastery, terms more commonly used in the literature to describe learners' demonstrated accuracy in actually producing correct grammatical forms in performance. Grammar awareness, by contrast, foregrounds the reflective, monitoring dimension of grammatical knowledge the extent to which learners can notice and regulate their own language use which is what enables students to construct accurate sentences, maintain tense consistency, and employ cohesive devices while writing. Although grammar awareness and grammar competence are related and often studied together, prior research on grammar competence and mastery consistently shows that students with stronger command of grammatical forms tend to achieve better writing performance because they can produce structurally accurate and coherent texts, and that explicit grammar instruction facilitates improvements in sentence construction, accuracy, and cohesion (Belmekki, 2023; Jamaludin & Nurdiauwati, 2021; Melati, 2022; Rahimi et al., 2024; Rosmiaty et al., 2023). The present study extends this line of work by examining the more metacognitive construct of grammar awareness rather than grammar accuracy alone.

However, writing quality cannot be explained by linguistic competence alone. Effective writing also involves cognitive processes such as planning, organizing,

evaluating, and revising ideas, drawing increasing attention to critical thinking, commonly defined as the ability to interpret information, analyze relationships, evaluate evidence, and formulate reasoned judgments (Facione, 1990). Operationally, these indicators translate into concrete narrative-writing behaviors: interpretation and analysis correspond to a writer's ability to identify which story events are relevant and how they relate to one another; inference corresponds to establishing causal and temporal connections between events; and evaluation corresponds to judging whether the resulting sequence of ideas is coherent and communicatively effective. In writing more broadly, critical thinking allows learners to select relevant information, establish logical connections among ideas, and revise texts based on communicative purpose, and empirical studies have confirmed its positive contribution to students' ability to develop ideas and produce more effective texts (Yang & Gamble, 2023; Hu & Saleem, 2023). However, most of this research has focused on argumentative, expository, or academic writing, leaving the role of critical thinking in narrative writing comparatively underexplored, despite narrative texts also requiring learners to establish logical relationships among events and maintain coherence.

Furthermore, the studies reviewed above reveal two specific gaps. First, a theoretical gap: grammar awareness and critical thinking have generally been examined as separate predictors of writing, and to date, few studies have tested whether the two constructs simultaneously and jointly predict narrative essay writing ability within a single regression model an important omission given that writing is increasingly understood as a multidimensional construct requiring both linguistic and cognitive resources at once. Second, a contextual gap: most previous studies on grammar-writing or critical-thinking-writing relationships have been conducted in university or general secondary settings, while vocational high school students, who must develop practical communication skills alongside higher-order thinking for workplace readiness, remain relatively underrepresented in the literature performance (Jamaludin & Nurdiawati, 2021; Yang & Gamble, 2023).

Addressing these gaps, the present study investigates grammar awareness and critical thinking skills as complementary predictors of narrative essay writing ability among vocational high school students in Indonesia, extending existing EFL writing research to the vocational school context.

Specifically, this study seeks to answer the following research questions:

1. Is there any significant correlation between students' grammar awareness and their narrative essay writing ability?
2. Is there any significant correlation between students' critical thinking skills and their narrative essay writing ability?
3. Do grammar awareness and critical thinking skills significantly predict students' narrative essay writing ability?

Based on the theoretical framework and previous empirical findings, the following hypotheses were formulated:

H1: There is a significant correlation between grammar awareness and narrative essay writing ability.

H2: There is a significant correlation between critical thinking skills and narrative essay writing ability.

H3: Grammar awareness and critical thinking skills significantly predict narrative essay writing ability.

Method

This study employed a quantitative approach using a correlational research design, specifically using multiple linear regression to examine whether grammar awareness and critical thinking skills (independent variables) jointly predicted narrative essay writing ability (the dependent variable) among vocational high school students (Creswell & Creswell, 2018). It was conducted at a vocational high school in Tangerang, Indonesia, during the 2025/2026 academic year, involving 35 tenth-grade students from one intact class selected through purposive sampling, as they had already completed instructional units on narrative texts. Although modest, this sample size met the minimum threshold recommended for correlational and regression analyses in exploratory educational research (Tabachnick & Fidell, 2019).

Three instruments were used: a 35-item multiple-choice grammar awareness test covering verb tense, sentence structure, error recognition, conjunctions, and cohesive devices, scored dichotomously; a 35-item reading-based multiple-choice critical thinking test assessing students' ability to identify main ideas, interpret information, draw inferences, and evaluate arguments, adapted from established critical thinking frameworks; and an original narrative essay task (orientation, complication, resolution) scored using an analytic rubric adapted from Brown (2004), Heaton (1988), and Weigle (2002) across five dimensions: content, organization, language use, vocabulary, and mechanics.

All instruments underwent expert validation by three specialists in English language teaching and assessment, yielding Aiken's V coefficients of .809 (grammar), .828 (critical thinking), and .875 (writing rubric), indicating very high content validity. Empirical validation using the Kuder-Richardson Formula 20 (KR-20) produced reliability coefficients of .62 (grammar) and .65 (critical thinking). Although moderate, these were considered acceptable for exploratory classroom-based research using newly developed instruments (George & Mallery, 2003), and all instruments were retained. Data were collected in three stages grammar awareness, critical thinking, and narrative writing administered during regular school hours with school permission, with participation voluntary and confidentiality and anonymity maintained throughout.

Data were analyzed using IBM SPSS Statistics version 23. Descriptive statistics summarized students' performance, and the assumptions of normality, linearity, homoscedasticity, and multicollinearity were tested prior to inferential analysis. Pearson Product-Moment Correlation, interpreted using Cohen's (1988) guidelines, addressed the first two research questions, while Multiple Linear Regression addressed the third by examining the combined predictive contribution of both predictors, with statistical significance set at .05.

Results

This section presents the findings of the study in relation to the three research questions. The results include descriptive statistics, assumption testing, Pearson Product-Moment Correlation analysis, and Multiple Linear Regression analysis.

Descriptive Statistics

Descriptive statistics were calculated to provide an overview of students' performance in grammar awareness, critical thinking skills, and narrative essay writing ability.

Table 1. Descriptive Statistics

	N	Descriptive Statistics			
		Minimum	Maximum	Mean	Std. Deviation
Grammar	35	71.43	94.29	83.6731	5.73871
Critical Thinking Skills	35	71.43	94.29	83.6731	5.34844
Writing	35	72.00	96.00	83.8857	6.61447
Valid N (listwise)	35				

As shown in Table 1, the mean score for grammar awareness was 83.67 (SD = 5.74) on a scale 0-100 scale, with scores ranging from 71.43 to 94.29, indicating that students generally demonstrated a relatively strong understanding of grammatical structures used in narrative writing. The mean score for critical thinking skills was 83.67 (SD = 5.35), suggesting that participants possessed moderate to high levels of analytical and reasoning abilities. Meanwhile, the mean score for narrative essay writing ability was 83.89 (SD = 6.61), reflecting generally satisfactory writing performance among the participants. The relatively similar mean scores across the three variables suggest that students demonstrated comparable levels of achievement in linguistic knowledge, cognitive skills, and writing performance. In addition, the standard deviation values indicate moderate variability among students, suggesting that the sample was sufficiently heterogeneous for subsequent correlational and regression analyses.

Assumption Testing

Prior to conducting inferential statistical analyses, several assumptions underlying Pearson correlation and multiple regression were examined. These assumptions included normality, linearity, homoscedasticity, and multicollinearity.

Table 2. Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Grammar	.104	35	.200*	.965	35	.324
Critical Thinking Skills	.125	35	.181	.970	35	.455
Writing	.162	35	.021	.950	35	.113

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

The Shapiro-Wilk test was prioritized as the basis for judging normality in this study because it is generally more powerful and more appropriate for small sample sizes such as the present $n = 35$ (Razali & Wah, 2011); the Kolmogorov-Smirnov test, by contrast, is less sensitive to deviations from normality in small samples and is more suitable for larger samples. The Shapiro-Wilk test revealed that the significance values for grammar awareness, critical thinking skills, and narrative essay writing ability were all greater than .05, indicating that the data were normally distributed.

Table 3. Result of Linearity Tests

		ANOVA				
		Sum of Squares	df	Mean Square	F	Sig.
Critical Thinking Skills	Between Groups	507.792	8	63.474	3.551	.007
	Within Groups	464.805	26	17.877		
	Total	972.597	34			
Writing	Between Groups	668.114	8	83.514	2.650	.029

Within Groups	819.429	26	31.516
Total	1487.543	34	

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Critical Thinking Skills	Between Groups	569.170	6	94.862	6.584	.000
	Within Groups	403.427	28	14.408		
	Total	972.597	34			
Grammar	Between Groups	545.389	6	90.898	4.432	.003
	Within Groups	574.326	28	20.512		
	Total	1119.716	34			

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Grammar	Between Groups	566.842	8	70.855	3.332	.009
	Within Groups	552.874	26	21.264		
	Total	1119.716	34			
Writing	Between Groups	912.552	8	114.069	5.158	.001
	Within Groups	574.990	26	22.115		
	Total	1487.543	34			

Furthermore, linearity was tested for each predictor in relation to narrative essay writing ability using the Test for Linearity procedure in SPSS. The linearity tests demonstrated significant linear relationships between the predictor variables and writing ability, while the deviation-from-linearity values were non-significant. These findings confirmed that the relationships among variables could be adequately represented by linear models.

Table 4. Results of Homoscedasticity

		Coefficients ^a		Standardized Coefficients			
Model		Unstandardized Coefficients		Beta	t		Sig.
1	(Constant)	.666	7.546		.088		.930
	Grammar	.048	.105	.106	.455		.652
	Critical Thinking Skills	-.012	.112	-.026	-.110		.913

a. Dependent Variable: ABS_RES

The significance values for grammar awareness ($p = .652$) and critical thinking skills ($p = .913$) were both greater than .05. According to the Glejser criterion, these results indicate that neither predictor significantly affected the absolute residual values. Therefore, the regression model did not exhibit heteroscedasticity, suggesting that the variance of the residuals was constant across all levels of the independent variables. In conclusion, the assumption of homoscedasticity was satisfied, supporting the appropriateness of conducting multiple linear regression analysis.

Relationship between Grammar Awareness and Narrative Essay Writing Ability

To answer the first research question, Pearson Product-Moment Correlation analysis was conducted to examine the relationship between students' grammar awareness and narrative essay writing ability.

Table 5. Pearson Correlation
Correlations

		Grammar	Reading	Writing
Grammar	Pearson Correlation	1	.658**	.649**
	Sig. (2-tailed)		.000	.000
	N	35	35	35
Critical Thinking Skills	Pearson Correlation	.658**	1	.687**
	Sig. (2-tailed)	.000		.000
	N	35	35	35
Writing	Pearson Correlation	.649**	.687**	1
	Sig. (2-tailed)	.000	.000	
	N	35	35	35

** . Correlation is significant at the 0.01 level (2-tailed).

The analysis revealed a statistically significant positive correlation between grammar awareness and narrative essay writing ability ($r = .649$, $p < .01$). According to Cohen's (1988) criteria, this coefficient represents a large effect size, indicating a substantial relationship between the two variables. Therefore, the first hypothesis (H1) was accepted. The positive correlation suggests that students with higher levels of grammar awareness tended to achieve better performance in narrative essay writing. In practical terms, learners who demonstrated stronger understanding and application of grammatical structures were more likely to produce narratives characterized by greater linguistic accuracy, coherence, and clarity.

Relationship between Critical Thinking Skills and Narrative Essay Writing Ability

The second research question examined the relationship between critical thinking skills and narrative essay writing ability. The Pearson correlation analysis revealed a statistically significant positive relationship between critical thinking skills and narrative essay writing ability ($r = .687$, $p < .01$). Based on Cohen's (1988) interpretation, this coefficient also represents a large effect size. Consequently, the second hypothesis (H2) was accepted.

This finding indicates that students with stronger critical thinking skills tended to demonstrate better writing performance. The ability to analyze information, infer relationships among events, evaluate narrative relevance, and organize ideas logically appears to contribute substantially to the production of effective narrative essays. Interestingly, the correlation coefficient between critical thinking skills and writing ability was slightly higher than that observed for grammar awareness. This result suggests that cognitive processes may play an equally important, if not stronger, role in shaping students' narrative writing performance.

Combined Contribution of Grammar Awareness and Critical Thinking Skills

To address the third research question, Multiple Linear Regression analysis was conducted to examine the simultaneous contribution of grammar awareness and critical thinking skills to narrative essay writing ability.

Table 6. Multiple Regression Model Summary
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.735 ^a	.540	.511	4.62332

a. Predictors: (Constant), Critical Thinking Skills, Grammar

The regression model was found to be statistically significant, $F(2,32) = 18.796$, $p < .001$. This result indicates that grammar awareness and critical thinking skills jointly predicted students' narrative essay writing ability. The coefficient of determination ($R^2 = .540$) showed that approximately 54% of the variance in writing performance could be explained by the combined influence of the two predictor variables. An R^2 value of .540 represents a substantial explanatory effect in educational research. However, because R^2 tends to be optimistic in small samples, the Adjusted R^2 (.511), which corrects for the number of predictors relative to sample size, offers a more conservative and arguably more trustworthy estimate: approximately 51% of the variance in narrative essay writing ability was explained by grammar awareness and critical thinking skills jointly, once sample size is accounted for. Even using this more conservative estimate, both R^2 and Adjusted R^2 values represent a substantial explanatory effect in educational research, suggesting that grammar awareness and critical thinking skills together constitute important factors associated with successful narrative writing performance. Therefore, the third hypothesis (H3) was accepted. To further examine the individual contribution of each predictor, the regression coefficients were analyzed.

Table 7. Regression Coefficients
Coefficients^a

Model	Unstandardized Coefficients			Standardized Coefficients	t	Sig.
	B	Std. Error		Beta		
1	(Constant)	2.969	13.222		.225	.824
	Grammar	.400	.184	.347	2.182	.037
	Critical Thinking Skills	.567	.197	.458	2.877	.007

a. Dependent Variable: Writing

The analysis revealed that both grammar awareness ($\beta = .347$, $p = .037$) and critical thinking skills ($\beta = .458$, $p = .007$) made statistically significant independent contributions to narrative essay writing ability. However, critical thinking skills demonstrated a larger standardized beta coefficient than grammar awareness, indicating a stronger statistical association with writing performance within the regression model. This finding suggests that, in this sample, students with higher levels of grammar awareness and critical thinking skills tended to demonstrate better narrative essay writing ability. Moreover, the larger standardized beta coefficient for critical thinking skills indicates that this variable showed a stronger predictive relationship with writing performance than grammar awareness. Nevertheless, these findings should be interpreted as statistical associations rather than evidence of causal effects. Overall, the findings indicate that narrative essay writing ability is statistically associated with both linguistic and cognitive factors. Students who demonstrated higher grammar awareness and stronger critical thinking skills also tended to produce narrative texts that were more accurate, coherent, and meaningful.

Discussion

The present study investigated the relationships among grammar awareness, critical thinking skills, and narrative essay writing ability among vocational high school students in an EFL context. The findings revealed that both grammar awareness and critical thinking skills were positively and significantly associated with students' narrative essay writing ability. Furthermore, the regression analysis demonstrated that

these two variables jointly explained a substantial proportion of variance in writing performance. These findings provide empirical support for the view that successful writing is shaped by the interaction between linguistic competence and higher-order cognitive processes.

Grammar Awareness and Narrative Essay Writing Ability

The first finding revealed a significant positive relationship between grammar awareness and narrative essay writing ability. Students who demonstrated stronger grammatical awareness tended to achieve higher writing scores, indicating that grammatical competence remains an important component of effective written communication. This relationship is likely to be particularly salient for narrative writing specifically, because the genre places heavy demands on a narrow set of grammatical features: consistent use of past-tense forms to sequence events, accurate use of time connectors (e.g., then, after that, before) to signal chronology, correct use of pronouns and referencing devices to track characters across a text, and appropriate sentence-combining strategies to avoid choppy, disconnected prose. Grammar awareness, as measured in this study, plausibly supports precisely these narrative-specific features rather than grammatical accuracy in general. This finding confirms the long-standing assumption that language knowledge serves as a foundation for successful writing performance.

One possible explanation for this relationship is that grammar awareness enables students to monitor and control their language production more effectively. Narrative writing requires learners to maintain tense consistency, construct meaningful sentence structures, and employ cohesive devices that connect events logically throughout a story. Students who are conscious of grammatical patterns are more likely to produce texts that are accurate, coherent, and easier for readers to understand. Consequently, grammatical awareness facilitates not only linguistic accuracy but also the overall comprehensibility of written narratives.

The present finding is consistent with previous studies that reported positive associations between grammar-related knowledge and writing achievement (Jamaludin & Nurdiawati, 2021; Belmekki, 2023; Melati, 2022). Research has demonstrated that students with stronger grammatical competence generally produce more accurate and coherent texts because they possess greater control over sentence construction and language use (Belmekki, 2023; Jamaludin & Nurdiawati, 2021). Similarly, studies on explicit grammar instruction have shown that enhanced grammatical awareness contributes to improvements in writing quality, particularly in areas related to accuracy, cohesion, and sentence complexity (Rahimi et al., 2024; Rosmiaty et al., 2023).

From a theoretical perspective, the finding supports language-based models of writing, which emphasize the importance of linguistic knowledge in written text production. These models suggest that writers rely on grammatical knowledge to transform ideas into meaningful linguistic structures. Without sufficient grammatical awareness, students may struggle to communicate ideas effectively even when they possess relevant content knowledge. Therefore, grammar awareness should not be viewed merely as knowledge of language rules but as an essential resource that supports effective communication through writing.

Critical Thinking Skills and Narrative Essay Writing Ability

In this study, critical thinking was operationalized through a reading-based multiple-choice test requiring students to identify main ideas, interpret information, draw inferences, and evaluate arguments in written texts. The second finding indicated a

significant positive relationship between critical thinking skills and narrative essay writing ability. Students with stronger critical thinking skills tended to demonstrate better writing performance, suggesting that narrative writing involves more than the application of linguistic knowledge alone. Rather, effective writing requires learners to engage in cognitive processes such as analyzing information, organizing ideas, evaluating relevance, and constructing logical relationships among events. Teaching critical thinking skills through argumentative essay-writing effectively enhances students' abilities in interpretation, analysis, evaluation, inference, and explanation (Sharadgah et al., 2019).

This finding can be explained by the cognitive demands inherent in narrative writing. To produce a meaningful narrative, students must determine which events are important, establish causal relationships among story elements, and create coherent sequences that guide readers through the text. These processes map directly onto Facione's (1990) core dimensions of critical thinking interpretation, analysis, inference, and evaluation discussed earlier in the Introduction: identifying important events reflects interpretation and analysis, establishing causal relationships reflects inference, and judging whether a sequence is coherent reflects evaluation. This convergence between narrative task demands and the theoretical structure of critical thinking offers a principled explanation for why students with stronger critical thinking skills are more capable of generating meaningful content and organizing narratives effectively, consistent with cognitive-rhetorical accounts of narrative coherence that emphasize event-causality mapping as a central organizing mechanism (Stevani & Saragi, 2025).

The finding aligns with previous studies demonstrating that critical thinking contributes positively to writing performance in EFL contexts (Yang & Gamble, 2023; Hu & Saleem, 2023). Earlier research has shown that students who possess stronger analytical and evaluative abilities tend to produce texts characterized by greater coherence, relevance, and depth of content (Teng & Yue, 2023). While much of the existing literature has focused on argumentative and academic writing, the present study extends these findings by demonstrating that critical thinking also plays an important role in narrative writing.

This extension is particularly important because narrative writing is often perceived as a relatively simple genre focused primarily on storytelling. However, the present findings suggest that narrative writing also requires substantial cognitive engagement. Students must make decisions regarding story development, event sequencing, characterization, and resolution. Therefore, narrative writing should be viewed not merely as a linguistic activity but also as a cognitive process involving higher-order thinking skills.

The Combined Contribution of Grammar Awareness and Critical Thinking Skills

One of the most important findings of this study was that grammar awareness and critical thinking skills jointly explained approximately 54% of the variance in students' narrative essay writing ability. This result indicates that writing performance cannot be adequately explained by a single factor. Instead, successful writing appears to emerge from the interaction of linguistic and cognitive resources. The substantial explanatory power of the regression model provides evidence for multidimensional perspectives of writing development. Contemporary writing theories propose that writing involves the coordination of multiple processes, including language generation, idea organization, planning, monitoring, and revision. In addition to grammar awareness and critical thinking skills, previous research has identified other factors that may be associated with writing performance, such as vocabulary knowledge, learning motivation, reading habits,

writing self-efficacy, and prior writing experience. These variables were not examined in the present study but may also contribute to students' narrative essay writing ability. Therefore, the present findings support the multidimensional perspective of writing by demonstrating that both grammar awareness and critical thinking skills are significantly associated with writing achievement, while acknowledging that other linguistic, cognitive, and affective factors may also play important roles. Grammar awareness is significantly positively correlated with writing performance, indicating that higher awareness leads to more accurate and cohesive writing, explicit grammar awareness instruction is suggested to enhance writing quality (Muhammad et al., 2025).

Interestingly, critical thinking skills emerged as a stronger predictor of writing performance than grammar awareness. Although both variables made significant contributions, the larger standardized beta coefficient associated with critical thinking indicates a stronger predictive relationship with writing performance within the regression model. This finding does not diminish the importance of grammar; rather, it suggests that linguistic accuracy alone may not fully account for differences in students' narrative writing performance. Critical thinking skills are a stronger predictor of writing performance than cognitive styles, with significant contributions from both variables; evidence based on a sample of 26 students using multiple regression analysis (Ramli et al., 2025).

A possible interpretation is that students with adequate grammatical knowledge may still experience difficulty producing effective narratives if they have limited ability to develop ideas logically or organize events coherently. Likewise, students with stronger critical thinking skills may also tend to generate more meaningful content, construct more coherent storylines, and communicate ideas more effectively in their writing. However, these findings should be interpreted as statistical associations rather than evidence of causal relationships.

It is also important to note that the regression model explained approximately 54% of the variance in narrative essay writing ability, meaning that the remaining 46% of the variance was attributable to factors outside the present model. This unexplained variance suggests that writing performance is also associated with other variables that were not included in this study, such as vocabulary knowledge, learning motivation, reading habits, writing self-efficacy, prior writing experience, and other linguistic, cognitive, or contextual factors. Therefore, although grammar awareness and critical thinking skills were significant predictors, they should not be regarded as the only factors associated with students' narrative essay writing ability.

This finding contributes to the growing body of EFL writing research by highlighting the complementary relationship between linguistic competence and cognitive ability. Previous studies have often examined these factors independently; however, the present study demonstrates that they function together in shaping writing performance. Consequently, writing achievement should be understood as the result of interactions among multiple dimensions rather than the product of isolated language skills.

Limitations

Several limitations should be acknowledged. First, the study involved a relatively small sample drawn from a single vocational high school, which limits the generalizability of the findings. Second, the correlational design does not permit causal conclusions regarding the relationships among the variables. Third, only two predictor variables were examined, whereas writing performance may also be influenced by additional factors

such as vocabulary knowledge, motivation, self-efficacy, reading habits, and metacognitive strategies. Future studies are encouraged to involve larger and more diverse samples, including students from different educational contexts and geographical regions. Researchers may also employ experimental or longitudinal designs to examine whether instructional interventions integrating grammar awareness and critical thinking can directly improve students' writing performance. Furthermore, future investigations may explore additional cognitive, affective, and linguistic variables to develop a more comprehensive understanding of writing achievement in EFL contexts.

Conclusion

The findings confirmed that grammar awareness and critical thinking skills were both significantly and positively associated with narrative essay writing ability, jointly explaining a substantial proportion of the variance in students' scores, with critical thinking emerging as the stronger predictor. The two variables appear to function as complementary factors in narrative writing: grammar awareness supports linguistic accuracy, sentence construction, and cohesion, while critical thinking facilitates idea generation, logical sequencing, and coherence, together supporting a multidimensional view of writing as the interaction of linguistic and cognitive resources.

From a pedagogical perspective, writing instruction should move beyond isolated grammar teaching to incorporate activities that promote critical thinking and meaningful communication. English teachers are encouraged to integrate grammar-focused instruction with reading-response activities, inference-based tasks, collaborative discussion, peer feedback, and reflective writing practice, helping students produce narratives that are grammatically accurate, coherent, and communicatively effective.

Nevertheless, these findings should be interpreted in light of several limitations. The study involved a relatively small sample drawn from a single educational institution, employed a correlational research design that does not permit causal inferences, and measured critical thinking through a reading-based multiple-choice test rather than during the actual writing process. Therefore, the findings may not be fully generalizable to other educational contexts or populations. Future research is encouraged to include larger and more diverse samples, employ alternative measures of critical thinking within writing tasks, and examine additional variables that may also contribute to students' writing ability.

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