

# Critical Thinking and Analytical Exposition Text in Efl Contexts: A Correlational Study

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## ABSTRAK

**Abstract:** This study investigates the correlation between students' critical thinking and their ability in writing analytical exposition texts. The research was conducted using a quantitative correlational design involving 55 eleventh-grade students at a state Islamic senior high school in Pekanbaru. Data were collected through a critical thinking disposition questionnaire and a writing test. The findings indicate that students generally demonstrate moderate levels of critical thinking and writing ability. Statistical analysis using Pearson Product-Moment correlation reveals a significant positive correlation between the two variables ( $r = 0.350$ ,  $p = 0.009 < 0.05$ ). The result of further confirms that the correlation is statistically significant, although the strength of the relationship is low (R determinan = 12.25%). This finding suggests that students with higher critical thinking tend to produce better analytical exposition writing to some extent. The study highlights the importance of integrating critical thinking instruction into writing pedagogy to improve students' academic writing performance.

**Abstrak:** Penelitian ini menyelidiki hubungan antara pemikiran kritis siswa dan kemampuan mereka dalam menulis teks eksposisi analitis. Penelitian dilakukan dengan menggunakan desain kuantitatif korelasional yang melibatkan 55 siswa kelas XI di salah satu SMA Islam Negeri di Pekanbaru. Data dikumpulkan melalui angket disposisi berpikir kritis dan tes menulis. Temuan menunjukkan bahwa siswa umumnya menunjukkan tingkat kemampuan berpikir kritis dan menulis yang moderat. Analisis statistik menggunakan korelasi Pearson Product-Moment menunjukkan adanya korelasi positif yang signifikan antara kedua variabel ( $r = 0,350$ ,  $p = 0,009 < 0,05$ ). Hasilnya semakin menegaskan bahwa korelasi tersebut signifikan secara statistik, meskipun kekuatan hubungannya rendah (R determinan = 12,25%). Temuan ini menunjukkan bahwa siswa dengan pemikiran kritis yang lebih tinggi cenderung menghasilkan tulisan eksposisi analitis yang lebih baik sampai batas tertentu. Studi ini menyoroti pentingnya hal ini tentang mengintegrasikan pengajaran berpikir kritis ke dalam pedagogi menulis untuk meningkatkan kinerja menulis akademik siswa.

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## INTRODUCTION

Writing is widely recognized as one of the most cognitively demanding skills in English as a Foreign Language (EFL) learning because it requires learners to integrate linguistic knowledge with higher-order thinking processes. Recent studies emphasize that effective writing involves not only grammatical and lexical competence but also the ability to analyze, evaluate, synthesize, and communicate ideas coherently (Yin et al., 2023; Zahra et al., 2024). However, while these studies acknowledge the cognitive complexity of writing, much of the existing literature generally discusses writing competence without clearly differentiating between genres, which may involve different cognitive and rhetorical demands.

One genre that reflects these these demands is analytical exposition writing, which requires students to present a position, support arguments with evidence, and

persuade readers through logical reasoning. Unlike narrative or descriptive texts, analytical exposition writing demands more than language accuracy; it also requires reasoning ability, argument construction, and critical evaluation of ideas. Nevertheless, in many EFL contexts, students continue to struggle with developing coherent arguments and maintaining logical flow, suggesting that writing instruction may not fully support the development of higher-order thinking skills needed for this genre. This challenge indicates that writing competence is closely tied to students' ability to engage in higher-order thinking, particularly critical thinking, which underpins the organization and development of ideas in writing.

Critical thinking has been widely recognized as a key component in developing academic writing ability because it enables learners to evaluate information, assess evidence, formulate arguments, and make reasoned judgments. A recent systematic review by (Yin et al., 2023) highlights that critical thinking instruction significantly contributes to EFL writing development, particularly in argumentative and analytical writing tasks. Similarly, empirical studies indicate that students with stronger critical thinking skills tend to produce better-organized and more coherent writing with stronger analytical expository structures (Ilyas & Arifin, 2025; Widyastuti, 2018; Zhao et al., 2024).

The relationship between critical thinking and writing has received growing scholarly attention in EFL and ESL contexts. Hamamah et al. (2022) argue that academic writing and critical thinking are inseparable because writing requires students to interpret information critically and construct logical arguments. Furthermore, recent studies reveal that instructional approaches integrating critical thinking activities into writing classrooms positively influence students' argumentative writing performance and cognitive engagement (Jiang et al., 2024).

In addition, although the relationship between critical thinking and writing has been widely discussed, many studies still treat writing as a homogeneous construct, without clearly differentiating between genres such as argumentative essays, academic essays, or analytical exposition texts. This lack of genre sensitivity limits the explanatory power of previous findings, as different writing genres may require different levels and types of reasoning processes. Furthermore, most existing studies have been conducted at the tertiary level, while secondary education contexts remain underexplored, particularly in relation to how students develop genre-specific writing skills alongside critical thinking abilities.

This gap is particularly evident in the Indonesian EFL context, where writing instruction often emphasizes linguistic accuracy over cognitive and argumentative development. Consequently, students may produce texts that are grammatically correct but lack depth, coherence, and logical development of ideas. While recent discussions have also raised concerns about the increasing use of digital writing tools and artificial intelligence in education, which may reduce students' cognitive engagement (Georgiou, 2025; Kosmyrna et al., 2025), there is still limited empirical evidence on how these broader shifts interact with students' critical thinking and genre-specific writing performance.

Given these gaps, particularly the lack of genre-specific and context-sensitive empirical evidence, this study aims to investigate the correlation between students' critical thinking ability and their performance in writing analytical exposition texts.

By focusing on senior high school EFL learners in Indonesia, this study seeks to provide more precise empirical evidence regarding how critical thinking is associated with students' ability to construct logical, coherent, and persuasive written arguments in a specific genre. The findings are expected to contribute to more cognitively informed writing pedagogy that integrates higher-order thinking skills into EFL instruction.

## METHOD

This study employed a quantitative correlational design to examine the relationship between students' critical thinking and their ability in writing analytical exposition texts. Correlational research is used to determine the degree of relationship between two variables without manipulating them. In this study, critical thinking was treated as the independent variable (X), while writing ability in analytical exposition was the dependent variable (Y).

The population of this study consisted of 295 eleventh-grade students at a state Islamic senior high school in Pekando bobaru. The sample was selected using cluster random sampling, resulting in 55 students from two classes. This technique was chosen because the population was organized into intact classes with relatively homogeneous characteristics.

Data were collected using two instruments: a questionnaire and a writing test.

The questionnaire was used to measure students' critical thinking disposition based on indicators proposed by Facione (2000), including truth-seeking, open-mindedness, analyticity, systematicity, self-confidence, inquisitiveness, and maturity. The instrument consisted of 30 items using a five-point Likert scale ranging from strongly agree (5) to strongly disagree (1).

To ensure instrument validity, a pilot test was conducted on a different sample drawn from the same population, consisting of 30 students who were not included in the main study sample. Item validity was analyzed using the Pearson Product-Moment correlation (item-total correlation) with SPSS 16.0. At a significance level of 5% ( $df = 28$ ), the  $r$ -table value was 0.3061. Items with  $r$ -count greater than  $r$ -table were considered valid, while items with lower values were considered invalid.

Based on the first try-out, 28 items were found to be valid. However, some indicators were not yet fully represented, so the instrument was revised and refined. A second try-out was then conducted using another group from the same population, and the final result showed 30 valid items, which were used in the main study. Finally, The reliability of the questionnaire was tested using Cronbach's Alpha, resulting in a coefficient of 0.869, indicating a high level of internal consistency.

To measure students' writing ability, a writing test was administered in which students were asked to compose an analytical exposition text based on a given topic. The students' writing was assessed using a standardized rubric adapted from Jacobs et al. (2002), covering content, organization, vocabulary, language use, and mechanics. Each component was scored separately based on predefined descriptors, and the total writing score was obtained by summing all components.

To ensure scoring objectivity and reliability, two independent raters were involved in assessing the students' writing (Rater 1 and Rater 2). Both raters used the same rubric and scoring criteria after receiving standardized scoring guidelines to

ensure consistency in interpretation. The inter-rater reliability was calculated using Pearson Product-Moment correlation through SPSS 16.0, resulting in a coefficient of 0.723, indicating acceptable agreement between raters. The final writing score for each student was obtained by averaging the scores from both raters.

The data were analyzed using Statistical Package for the Social Sciences (SPSS) version 30. Descriptive statistics were first employed to determine the general level of students' critical thinking and writing ability. Prior to hypothesis testing, reliability analysis was conducted to ensure the consistency of the instruments. Finally, Pearson Product-Moment correlation was used to examine the relationship between the two variables. The level of significance was set at 0.05, where a p-value lower than 0.05 indicates a statistically significant correlation.

## RESULTS AND DISCUSSION

The results of the descriptive analysis indicate that students' critical thinking and writing ability are at different levels. The mean score of critical thinking was 75.65, which is categorized as high, while the mean score of writing ability was 60.94, categorized as moderate or sufficient. This suggests that although students demonstrate relatively strong critical thinking disposition, this does not fully translate into equally strong writing performance.

**Table 1**  
**The Frequency and the Percentage of the Critical Thinking Score**

No	Category	Frequency	Percentage (%)
1	Very High	0	0%
2	High	50	90.90%
3	Average	5	9.1%
4	Low	0	0
5	Very Low	0	0
Total		55	100%

**Table 2**  
**The Frequency and Percentage of Students' Writing Ability**

No	Category	Frequency	Percentage (%)
1	Very Good	0	0%
2	Good	16	29.09%
3	Good	22	40%
4	Enough	17	30.91%
5	Less Fail	0	0
Total		55	100%

Prior to hypothesis testing, assumption tests were conducted. The data were normally distributed ( $p = 0.709 > 0.05$ ) and showed a linear relationship between variables ( $p = 0.880 > 0.05$ ), indicating that Pearson correlation analysis was appropriate.

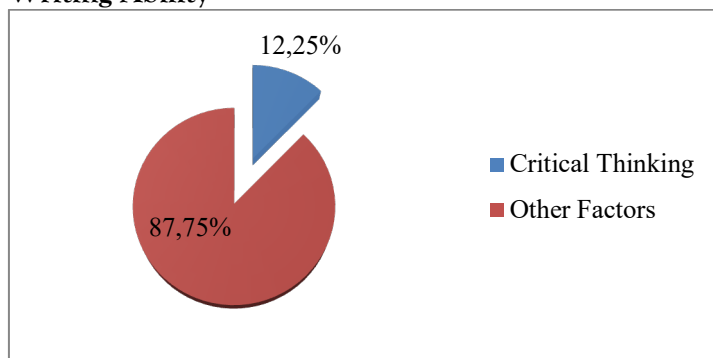
The correlation analysis revealed a positive and statistically significant relationship between students' critical thinking and their writing ability ( $r = 0.350$ ,  $p = 0.009 < 0.05$ ). This indicates that students with higher levels of critical thinking tend to demonstrate better performance in writing analytical exposition texts. However, the strength of the correlation is categorized as low, suggesting that the relationship, although significant, is not strong.

**Table 3**  
**The Correlation Table between Critical Thinking and Writing Ability**

		Critical Thinking	Writing Ability
Critical Thinking	Pearson Correlation	1	.350**
	Sig. (2-tailed)		.009
	N	55	55
Writing Ability	Pearson Correlation	.350**	1
	Sig. (2-tailed)	.009	
	N	55	55
**. Correlation is significant at the 0.01 level (2-tailed).			

Further analysis shows that critical thinking contributes 12.25% to students' writing ability, while the remaining 87.75% is influenced by other factors. These factors may include linguistic competence, vocabulary mastery, grammar knowledge, writing practice, and instructional strategies.

**Picture 1**  
**The Contribution of Critical Thinking Towards Writing Ability**



These findings reinforce the view that writing is not merely a linguistic activity but also a cognitively demanding process involving reasoning, evaluation, and idea construction. Recent scholarship in EFL writing increasingly conceptualizes writing as a higher-order thinking activity in which learners analyze information, evaluate evidence, and construct meaning through written discourse (Yin et al., 2023). In the present study, students with higher levels of critical thinking tended to demonstrate better performance in writing analytical exposition texts. This finding is consistent with previous studies reporting that critical thinking contributes positively to argument quality, coherence, and organization in EFL writing contexts (Golpour, 2014; Hu & Saleem, 2023; Pei et al., 2017).

The positive correlation found in this study confirms that critical thinking plays a meaningful role in supporting students' writing performance, particularly in analytical exposition texts. This genre

requires students to present a clear stance, develop logical arguments, and provide supporting reasons, all of which are closely related to the core components of critical thinking. Students who are able to analyze issues, evaluate ideas, and organize their thoughts systematically are more likely to construct coherent and persuasive texts. This aligns with Facione's framework, which identifies interpretation, analysis, evaluation, and inference as essential skills in critical thinking that directly support reasoning-based tasks such as academic writing (Facione & Facione, 2013). Similarly, (Ennis, 2016) emphasizes that critical thinking is inherently linked to the ability to justify claims with logical and relevant evidence, a key requirement in argumentative writing.

However, the relatively low contribution of critical thinking (12.25%) indicates that writing performance is influenced by multiple interconnected factors beyond cognitive disposition alone. Although students may possess adequate reasoning abilities, they may still encounter difficulties transforming ideas into coherent written texts due to limitations in vocabulary, grammar, rhetorical knowledge, and genre awareness. This supports contemporary views in second language writing research that writing proficiency emerges from the interaction between cognitive processes and linguistic competence rather than from a single variable (Zahra et al., 2024). In EFL contexts, students frequently struggle to maintain coherence, elaborate arguments, and express abstract reasoning effectively because linguistic limitations constrain the expression of critical thought.

In addition to cognitive and linguistic factors, students' writing performance may also be influenced by affective variables such as motivation, self-efficacy, and writing anxiety. Recent studies have shown that learners who possess higher levels of writing self-efficacy are more likely to engage in complex cognitive processes, including planning, revising, and evaluating their own writing (Sari & Han, 2024). Conversely, students with low confidence or high anxiety may avoid elaborating their ideas, even when they are capable of critical thinking. This suggests that fostering a supportive learning environment is essential to help students translate their cognitive abilities into effective written expression.

Another important factor that may explain the relatively weak correlation is students' limited exposure to argumentative writing practices, including analytical exposition text. In many EFL contexts, writing instruction tends to emphasize product-oriented outcomes rather than process-oriented development. As a result, students may not receive sufficient opportunities to practice constructing arguments, evaluating evidence, and revising their ideas. Research by (Lee & Mak, 2026) indicates that sustained exposure to argumentative writing tasks, including analytical exposition texts, significantly improves both critical thinking and writing quality. Therefore, regular engagement in structured writing activities is crucial to strengthen the connection between thinking and writing.

Furthermore, the role of feedback should not be overlooked in improving students' writing performance. Feedback, particularly when it focuses on both content and reasoning, can help students refine their arguments and enhance coherence. Recent research highlights that dialogic and formative feedback, such as peer review and teacher-student interaction, can promote deeper cognitive engagement and improve students' ability to articulate their ideas effectively (Crosthwaite et al., 2022; Fitriyah et al., 2024; Nabilla et al., 2023). This indicates that feedback should go beyond correcting language errors and instead support the development of students' critical thinking in writing.

In other words, the ability to think critically does not automatically guarantee the ability to express ideas effectively in writing. This gap highlights the challenge faced by EFL learners in transforming abstract reasoning into structured written discourse, particularly in a foreign language context. A recent study by Wati, et al. (2024) similarly reported that critical thinking contributed moderately to students' analytical exposition writing performance, indicating that many other variables influence writing quality. Furthermore, research on EFL analytical writing found that students often struggle with organizing arguments, maintaining coherence, and translating critical ideas into appropriate linguistic forms despite demonstrating reasoning ability (Setyorini & Hawa, 2024).

The findings also suggest that the relationship between critical thinking and writing should be understood within broader instructional and technological contexts. Recent studies emphasize that

instructional approaches integrating critical thinking activities into writing classrooms such as collaborative discussion, problem-based learning, and technology-enhanced social learning can significantly improve students' writing engagement and argumentative performance (Yin et al., 2024). Furthermore, emerging research on AI-assisted writing highlights both opportunities and risks in developing students' critical thinking. While AI tools may support idea generation and revision, excessive dependence on such technologies may reduce learners' cognitive engagement and reflective thinking during the writing process (Darwin et al., 2024; Georgiou, 2025; Saddhono et al., 2024).

Therefore, the findings imply that effective writing instruction should integrate the development of critical thinking with explicit instruction in writing skills. Teaching writing should not focus solely on grammatical accuracy and text structure but also encourage learners to analyze issues, evaluate evidence, and construct logical arguments. In this sense, critical thinking and writing should be treated as interdependent processes that develop simultaneously within meaningful learning environments.

Finally, the findings of this study have implications for curriculum design in EFL education. Integrating critical thinking into writing instruction requires not only appropriate teaching strategies but also alignment with curriculum objectives and assessment practices. Writing tasks should be designed to encourage analysis, evaluation, and argumentation, rather than mere reproduction of information. In this regard, adopting a genre-based and inquiry-based approach may provide a more effective framework for developing both critical thinking and writing skills simultaneously (Hyland, 2024).

## CONCLUSION

This study examined the relationship between students' critical thinking and their ability to write analytical exposition texts in an EFL context. The findings revealed a positive and statistically significant correlation between the two variables, indicating that students with higher levels of critical thinking tend to demonstrate better writing performance. However, the strength of the correlation was low, suggesting that critical thinking contributes to writing ability but is not the sole determining factor. The results also showed a disparity between students' relatively high critical thinking levels and their moderate writing performance. This finding highlights the complexity of writing as a skill that requires not only cognitive abilities but also linguistic competence, including vocabulary mastery, grammatical accuracy, and familiarity with rhetorical structures. Therefore, the ability to think critically does not automatically translate into the ability to express ideas effectively in written form.

Based on these findings, it can be concluded that writing instruction in EFL contexts should adopt an integrated approach that simultaneously develops students' critical thinking and language skills. Pedagogical practices that encourage argumentation, reasoning, and evidence-based writing, alongside explicit instruction in writing conventions, are essential to improve students' writing performance. Finally, this study is limited by its focus on a single school and a relatively small sample size. Future research is recommended to involve larger and more diverse populations, as well as to explore additional variables—such as language proficiency, motivation, and instructional strategies—that may influence students' writing ability.

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