

Exploring Critical Thinking and Writing Challenges in EFL Students' Argumentative Essays

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Abstract

This study investigates the critical thinking elements and challenges encountered by EFL university students in writing argumentative essays. Guided by Cottrell's (2005) framework consisting of writer's position, reasons, evidence, counterarguments, and conclusion. This qualitative content analysis examined students' argumentative essays alongside semi-structured interviews. The participants were second-year English education students at a private university in, Serang-West Java, Indonesia. Findings reveal that while students demonstrated certain elements of critical thinking, such as stating positions and providing basic reasons, they often struggled with integrating strong evidence, addressing counterarguments, and maintaining coherence. Linguistic limitations, restricted vocabulary, and lack of argumentative strategies emerged as the main challenges. The study highlights the pedagogical need for explicit instruction in critical thinking and argumentative writing, offering insights for EFL instructors to design more effective practices.

Keywords: Argumentative Essay; Critical Thinking; Writing Challenges; EFL; Indonesia

INTRODUCTION

Writing is one of the most complex skills in foreign language learning, requiring grammatical knowledge, vocabulary mastery, organization, and critical reasoning (Arifin, 2020; Tosuncuoglu, 2018). Among academic genres, argumentative writing holds a significant place because it requires students to establish a stance, provide reasons and evidence, and evaluate opposing perspectives (Hyland, 2019). In EFL contexts, argumentative writing is especially demanding since students must express advanced reasoning in a language that is not their own (Akbari et al., 2018). In Indonesia, CT development is central to the Merdeka Belajar curriculum reform. As such, argumentative writing is not only a linguistic task but also a means to cultivate CT. However, EFL students in Indonesia often produce essays that remain descriptive rather than argumentative, with weaknesses in evidence use, counterargument development, and coherence (Qoyyimah et al., 2022). To understand the intersection of writing and critical thinking, several analytical frameworks have been widely used. Toulmin's model of argumentation (1958) breaks down arguments into claims, data, warrants, backing, and rebuttals, and has been employed to evaluate the depth of argumentative writing. Findings consistently show that while EFL learners can often state claims and provide basic reasons, they struggle to construct warrants and rebuttals, which are essential for demonstrating higher levels of reasoning (Qin & Karabacak, 2010). Similarly, the Paul-Elder framework emphasizes intellectual standards such as clarity, accuracy, logic, and fairness, offering criteria to judge the quality of students' reasoning in essays (Elder & Paul, 2017). Cottrell (2005) highlights core elements of CT in writing position, reasons, evidence, counterarguments, and conclusion which remain highly relevant in evaluating EFL students' argumentative performance. Research in both global and Indonesian contexts confirms that argumentative writing remains a persistent challenge. Indonesian studies report that students face difficulties in organizing ideas, applying

rhetorical strategies, and elaborating on arguments (Indah, 2017). International studies further show that while learners can develop basic arguments, they often fail to integrate evidence effectively or to respond to opposing perspectives (Zhang, 2018). Pedagogical interventions such as automated writing evaluation and peer assessment (Miranty et al., 2023) have demonstrated potential to enhance both surface-level accuracy and critical engagement in argumentative writing, yet they are not widely implemented in Indonesian university contexts. While existing studies demonstrate the value of frameworks and instructional innovations, most focus on either linguistic difficulties or critical thinking skills in isolation. Very few have examined both dimensions together, particularly in Indonesian higher education, where fostering critical and reflective graduates is an urgent priority. This study addresses that gap by analyzing not only the linguistic and rhetorical challenges students face but also the extent to which their essays reveal critical thinking elements. Understanding both dimensions is necessary to provide a more comprehensive picture of students' writing development and to design more effective teaching strategies. The aim of this study is therefore to investigate the challenges faced by Indonesian EFL university students in writing argumentative essays and to analyze the extent to which their essays demonstrate elements of critical thinking. To achieve this aim, the study combines essay analysis with student interviews to capture both textual performance and students' perceptions. Specifically, it is guided by two research questions: (1) What challenges do Indonesian EFL students face when writing argumentative essays? and (2) To what extent do their essays demonstrate elements of critical thinking?

METHOD

Research Design

This study employed a qualitative descriptive design using content analysis (Creswell & Creswell, 2018). This approach was chosen because it enables systematic interpretation of student-produced texts and provides nuanced insights into how learners construct arguments. The central focus was on identifying critical thinking elements in argumentative essays and exploring students' challenges in producing them. To complement the essay analysis, semi-structured interviews were conducted. The use of two data sources which were essays and interviews enabled triangulation and provided a comprehensive response to the research questions.

Participants

The participants were 27 second-year students (18 females and 9 males) enrolled in an Academic Writing course at a private university in Banten-West Java, during the 2024/2025 academic year. By the fourth semester, these students had already completed preliminary courses such as general writing and paragraph writing, which equipped them with the foundational skills required for essay-level composition. Data collection was carried out over three months (June–August 2025). A purposive sampling strategy was employed to ensure that the participants had relevant experience with argumentative writing and were at a developmental stage where critical thinking skills were expected learning outcomes.

Data Collection

Two types of data were collected: argumentative essays and interview responses. For the document data, students were asked to compose an argumentative essay on one of three predetermined topics: (1) mobile phone use during lessons, (2) the effectiveness of the TOEFL test, or (3) the impact of social media. Before the task, the instructor introduced the core elements of critical thinking expected in argumentative writing, including stating a position, providing reasons, using evidence, considering counterarguments, and writing a conclusion.

These essays served as the primary material for evaluating students’ application of critical thinking.

To complement the textual data, semi-structured interviews were conducted individually with each student. The interview consisted of 10 open-ended items designed to probe students’ perceived challenges in argumentative writing. The questions included:

1. What do you think about argumentative essay writing in general?
2. How do you usually develop ideas when you write an argumentative essay?
3. What difficulties do you face in generating ideas for your essay?
4. What problems do you encounter with grammar when writing an argumentative essay?
5. Do you find vocabulary to be a challenge in your writing? If yes, please explain.
6. How do you usually find or use evidence to support your arguments?
7. What difficulties do you face when trying to provide evidence in your essay?
8. Have you ever tried to include counterarguments in your writing? If yes, what challenges did you experience?
9. How do you usually write the conclusion of your argumentative essay?
10. Overall, what are the main obstacles you face when writing an argumentative essay in English?

To ensure comfort and clarity, students were allowed to respond in Bahasa Indonesia, with all recordings later transcribed and translated into English. The interviews provided insights into the difficulties underlying the patterns observed in the essays.

Critical Thinking Assessment

Students’ essays were examined using an observation checklist adapted from Cottrell (2005) framework, which identifies five core elements of critical thinking in writing: position, reasons, evidence, counterarguments, and conclusion. This checklist was used to record the presence and quality of these elements in each essay. In addition, students’ performance was scored with a rubric adapted from (Stapleton, 2001), who focused on critical thinking dimensions in EFL argumentative writing. Moreover, this research also adapted Jacobs’ et al. (1981) rubrick. They developed the rubrick which was widely used ESL Composition Profile. This adaptation allowed the study to combine the evaluation of argument quality with a structured, multi-level scoring scale. Recent scholarship (Lu & Xie, 2019; Wang & Mat Said, 2024) supports the use of adapted rubrics for evaluating both linguistic and critical thinking dimensions in EFL writing, ensuring validity and fairness in assessment.

Table 1. Rubric for Critical Thinking Levels in Argumentative Essays (Adapted from: Stapleton (2001) and Jacobs et al. (1981))

Level	Descriptor
Elementary	States a position vaguely; minimal or irrelevant reasoning; no evidence or counterargument.
Pre-intermediate	Position present but weakly supported; reasons vague or repetitive; evidence anecdotal; counterarguments absent.
Intermediate	Position clear with some logical reasons; limited or general evidence; counterargument absent or superficial.
Post-intermediate	Position and reasons clear; some relevant evidence used; basic counterargument included; conclusion restates points with some synthesis.
Advanced	Position sophisticated and well-argued; reasons logical and well-elaborated; strong, credible evidence; counterarguments addressed effectively; conclusion synthesizes ideas.

Data Analysis

Data analysis followed (Creswell & Creswell, 2018) qualitative research procedures. Essays were reviewed systematically using the observation checklist, and rubric scores were assigned to determine levels of critical thinking. To enhance reliability, a second rater was involved in the scoring process; rater agreement was discussed and discrepancies resolved collaboratively. Interview transcripts were transcribed, coded inductively, and grouped into categories and themes that reflected students' reported challenges. Thematic analysis followed Braun and Clarke's (2021) six-step approach, which included familiarization, coding, theme development, reviewing, defining, and reporting. Finally, the findings from the essays and interviews were triangulated, allowing a comprehensive interpretation that addressed both the linguistic and cognitive dimensions of students' argumentative writing.

Ethical Considerations and Trustworthiness

All participants were informed about the purpose of the study and gave their consent prior to participation. Their anonymity was maintained by using codes instead of real names. Ethical approval was obtained from the faculty research committee. To ensure the trustworthiness of the study, several strategies were employed. Credibility was addressed through data triangulation between essays and interviews, as well as member checking with a subset of students to confirm interpretations. Dependability was maintained by consulting a second rater in the scoring process. Confirmability was strengthened by including verbatim excerpts from essays and interviews to represent students' voices. Transferability was ensured by providing a thick description of the research context so that readers can judge the relevance of findings to their own settings.

RESULTS AND DISCUSSION

Results

This section addresses two central research questions: what challenges Indonesian EFL students encounter in writing argumentative essays, and to what extent their essays demonstrate elements of critical thinking. The findings draw on both the interview data and the analysis of students' essays, with the results further supported by rubric-based scoring to provide a comprehensive understanding of their performance.

Challenges in Writing Argumentative Essays

The interviews revealed that students faced difficulties across both linguistic and cognitive dimensions of writing. The most frequent challenges were developing arguments (12 students, 44%) and constructing counterarguments (9 students, 33%). Language-related problems included grammar errors (7 students, 25%) and limited vocabulary (6 students, 22%). Problems such as organization, coherence, supporting ideas, and paragraph structure were also reported, though less frequently. A few students mentioned difficulties in stating a clear thesis (2 students, 7%) and writing conclusions (2 students, 7%).

Students' own voices illustrate these struggles:

- a. On idea generation: *"Writing argument is not easy because we have to have more knowledge and information."*
- b. On coherence: *"I don't know how to explain my ideas; I just repeat the same point."*
- c. On grammar: *"I often make mistakes in tenses, and I am not sure if my sentences are correct."*
- d. On vocabulary: *"I only know simple words, so I use 'good' and 'bad' many times."*

- e. On evidence: “I don’t know where to find supporting data. I only use my opinion.”
- f. On counterarguments: “It is difficult for me to write about contradiction; I don’t know how to answer the opposite opinion.”
- g. On conclusions: “I only repeat the introduction in my conclusion.”

Table 1. Interview Questions, Focus Areas, Sample Quotations, and Frequencies (n = 27)

Item	Focus Area	Sample Student Quotations	Frequency
Q1	General view	“Writing argument is not easy because we have to have more knowledge and information.”	12 (44%)
Q2–3	Idea generation	“I don’t know how to explain my ideas, I just repeat the same point.”	12 (44%)
Q4	Grammar	“I often make mistakes in tenses, and I am not sure if my sentences are correct.”	7 (25%)
Q5	Vocabulary	“I only know simple words, so I use ‘good’ and ‘bad’ many times.”	6 (22%)
Q6	Evidence (using data)	“I don’t know where to find supporting data. I only use my opinion.”	4 (14%)
Q7	Difficulties with evidence	“It is difficult for me to give evidence, because we don’t learn how to search for it.”	4 (14%)
Q8	Counterarguments	“It is difficult for me to write about contradiction; I don’t know how to answer the opposite opinion.”	9 (33%)
Q9	Conclusion writing	“I only repeat the introduction in my conclusion.”	2 (7%)
Q10	Overall obstacles	“Sometimes I cannot organize my essay because I don’t make an outline.”	6 (22%)

These findings confirm that students’ problems are not only surface-level (grammar and vocabulary) but also involve higher-order thinking skills, such as generating ideas, using evidence, and anticipating opposing views.

Critical Thinking Elements in Essays

Analysis of students’ essays using Cottrell’s (2005) framework showed uneven mastery of critical thinking. Most students were able to state a position (23 students, 85%) and give at least one reason (15 students, 56%). However, fewer supported their claims with evidence (9 students, 33%) or addressed counterarguments (6 students, 22%). While 20 students (74%) wrote a conclusion, most simply restated the introduction without synthesis. Examples illustrate this pattern. One student wrote, “I agree that social media helps communication because it is easy and fast,” but offered no evidence. Another acknowledged, “Some people say social media is bad,” but dismissed it in a single sentence without elaboration.

Table 2. Presence of Critical Thinking Elements in Students’ Essays (n = 27)

Element	Students Demonstrating Element	Percentage
Position	23	85%
Reasons	15	56%
Evidence	9	33%
Counterarguments	6	22%
Conclusion	20	74%

The results suggest that while students can establish a stance, they struggle to sustain arguments with credible support or engage opposing perspectives which are the key aspects of critical thinking.

Rubric-Based Levels of Critical Thinking

The rubric adapted from Stapleton (2001) and Jacobs et al. (1981) provided a holistic evaluation of students' critical thinking levels. Scores ranged from 25 to 47, with a mean of approximately 34. The distribution is shown in Table 3.

Table 3. Distribution of Students Across Critical Thinking Levels

Level	Number of Students	Percentage
Elementary	8	30%
Pre-Intermediate	9	33%
Intermediate	7	26%
Post-Intermediate	2	7%
Advanced	1	4%

Only one student achieved the advanced level, producing an essay with a clear stance, logical reasoning, credible evidence, and a rebuttal. In contrast, most students remained at the pre-intermediate or intermediate levels, where claims were stated but rarely substantiated. This distribution confirms that students are mostly at the developing stage of critical thinking, capable of stating opinions but rarely extending them into well-reasoned arguments. Triangulating the essay analysis, rubric scoring, and interview data shows a consistent pattern. Students are generally able to state a thesis and provide basic reasons, but their writing remains descriptive, repetitive, and weakly supported. They lack the strategies to locate or integrate evidence, and they avoid counterarguments because they see them as "complicated." Linguistic limitations in grammar and vocabulary further constrain their ability to express ideas clearly. Together, the findings reveal that Indonesian EFL students face intertwined linguistic challenges (accuracy, vocabulary, coherence) and cognitive challenges (evidence, rebuttal, synthesis). Without explicit instruction in these areas, their argumentative essays are unlikely to progress beyond surface-level reasoning.

Discussion

The results of this study demonstrate that Indonesian EFL students' argumentative essays are limited by a combination of linguistic challenges (grammar, vocabulary, coherence) and cognitive challenges (idea generation, evidence use, counterargument construction). While most students were able to formulate a thesis and provide basic reasons, their writing often lacked credible support and rarely engaged opposing viewpoints. These findings resonate with broader trends identified across EFL contexts. A scoping review by Wang & Mat Said (2024) concluded that weaknesses in argument structure, critical thinking, and feedback are recurring barriers for EFL learners, while an Indonesian-based mixed-method study (Sundari & Febriyanti, 2021) similarly highlighted difficulties in producing claims and evidence. One of the most striking weaknesses observed in this study was the lack of evidence integration. Students relied largely on personal experiences or generalized statements rather than credible data. This echoes Qin and Karabacak's (2010) earlier findings in Chinese EFL contexts which shows that while learners may initially master basic elements like claims and reasons, higher-level components such as evidence and rebuttals emerge only later in development. This suggests that Indonesian students' reliance on anecdotal evidence is not simply a language problem but reflects a broader developmental stage in argumentation. Another major difficulty was the avoidance of counterarguments. Many students perceived rebuttals as "complicated"

and chose to exclude them from their essays. This reluctance has also been documented internationally (Rusfandi, 2015) reports that both L1 and L2 writers tend to produce one-sided arguments, struggling particularly with counterargument and rebuttal. Such findings reinforce the argument that rebuttal skills cannot be left to implicit learning but must be explicitly taught if students are to progress beyond surface-level argumentation. The rubric-based scoring confirmed that most participants remained at elementary to intermediate levels of critical thinking, reflecting limited ability to substantiate claims or synthesize opposing views. Xie and Lv (2022) found that providing content support and structured planning instruction improved coherence and connection in EFL argumentative writing, suggesting that targeted scaffolding could help Indonesian students move beyond repetitive reasoning. Similarly, Sundari & Febriyant (2021) emphasized that Indonesian learners require systematic teaching interventions that combine language support with cognitive strategies for argument development. Taken together, these findings indicate that improving EFL students' argumentative writing requires an integrated approach. Students must be supported not only in linguistic accuracy but also in argumentation strategies such as sourcing evidence, planning content, and constructing rebuttals. As recent studies confirm (Rusfandi, 2015; Wang & Mat Said, 2024), these skills develop gradually and must be scaffolded through explicit instruction, guided practice, and feedback. Without such interventions, students' essays will likely remain structurally complete but analytically limited.

CONCLUSION

This study shows that although students are generally able to state a position and provide basic reasons in their essays, their argumentative writing still reflects an elementary to intermediate level of critical thinking, with notable weaknesses in integrating evidence, addressing counterarguments, and maintaining coherence. These limitations are shaped by both linguistic barriers, such as grammar and vocabulary, and cognitive challenges in developing and synthesizing ideas. To foster higher-order thinking through writing, instruction should therefore move beyond language accuracy and explicitly scaffold the use of evidence, rebuttal strategies, and logical organization. Approaches such as reading-to-write tasks, structured outlines, and peer review can provide practical support, while curriculum design and assessment rubrics should highlight reasoning and evidence as key indicators of critical thinking. By embedding these targeted interventions, students can be better guided from descriptive writing toward more analytical, evidence-based argumentation.

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