
Assessing Critical Thinking Skills in Academic Writing: A Study of English Education Students at University of Mataram

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Abstract: In higher education, critical thinking plays a vital role in shaping students' analytical and reflective abilities, particularly through academic writing which serves as both a learning tool and an assessment method. Recognizing its importance, this study investigated the critical thinking skills of English Department students at the Faculty of Teacher Training and Education, University of Mataram, as reflected in their academic writing. The study aimed to assess the level of students' critical thinking skills, identify their strengths and weaknesses, and explore the factors that influence their critical thinking development. Employing a sequential explanatory mixed-method design, quantitative data were first collected through IELTS aligned academic writing tasks from 45 fourth semester students, followed by qualitative interviews to gain deeper insights into their reasoning processes and writing challenges. Quantitative findings indicated that students reached a general intermediate level of critical thinking, in which they exhibited relative strength in task response and coherence but consistent weakness in grammar and vocabulary use. Comparative outcomes indicated that Class G outperformed consistently Class H on key performance indicators. Qualitative findings also revealed that while students were able to use evidence and reason, they lacked analytical depth, integration of sources, and structural composition in argument construction. Lecturers' feedback, peer interaction, and self-regulation were identified as key factors supporting students' critical thinking development. The study concludes that academic writing can serve as an effective medium for developing students' critical thinking skills when supported by explicit instruction, rubric-based feedback, and collaborative learning activities. It highlights the need for continuous pedagogical innovation to strengthen students' ability to think critically and express their ideas effectively in academic contexts.

Keywords: Academic Writing, Critical Thinking, IELTS Writing Rubric, University of Mataram

INTRODUCTION

Critical thinking has been acknowledged all over the world as a necessary attribute for academic and professional achievement in higher education. It enables students to evaluate information, determine its credibility, and synthesize insights into coherent conclusions (McCormick et al., 2015). For students in English education, these skills are particularly important, as they not only determine academic achievement, but also enable students to enter the profession as teachers and communicators (Nurislam et al., 2023). Academic writing is the focal point of this process because it requires students to organize ideas logically, provide evidence, and develop rational arguments,

making it a learning vehicle and instrument for assessing critical thinking (Gochitashvili & bashvili, 2021). Despite being in the central position, the majority of EFL learners fail to make critical thinking part of their writings.

Studies have shown that Indonesian students tend to find it challenging to construct ideas, coherence, vocabulary use, and grammatical accuracy (Mulyasin et al., 2023). They memorize and give surface-level details instead of making strong arguments (Warwick & Essay, 2011). Limited access to academic resources, poor feedback, and language barriers further limit their capacity to write critically (Dewi et al., 2022). These issues reflect a gap between theoretical emphasis placed on critical thinking and academic writing performance by

students. While previous international research has established links between scholarly writing and critical thinking (Teng & Yue, 2023), localized Indonesian data in tertiary education is scarce. There are few studies applying systematic, rubric-based analysis to particularly investigate how the critical thinking of students is expressed in their written texts. Filling this gap is important because localized studies can generate more contextually relevant information regarding curriculum and teaching (Narayana & Soepriyanti, 2023).

Therefore, in this study, critical thinking skills of fourth-semester students of the Department of English at the Faculty of Teacher Training and Education, University of Mataram, as realized in academic writing are examined. It tries to identify answers to the following research questions: What is the degree of critical thinking skills of the students as translated through their academic writing based on aspects such as use of evidence, use of logical reason, and argument? How do students' critical thinking skills enhance the overall quality of writing? What are the challenges facing students in employing critical thinking skills when writing?

METHOD

This study employed a mixed-methods design with sequential explanatory in which quantitative and qualitative data were integrated for a comprehensive portrayal of critical thinking in student academic writing. According to Zohrabi (2013), this kind of design is appropriate when quantitative results provide an overall description of the research problem and qualitative data are needed to explain and further define those outcomes. The research was conducted at the English Department, Faculty of Teacher Training and Education, University of Mataram, from June to August 2025. Quantitative procedure preceded qualitative procedure. The subjects were 45 fourth-semester students of two classes (G and H). The students were purposively selected because they were currently studying the Academic Writing course and thereby directly engaged in writing argumentative essays. All the students were taken into account in the quantitative phase, with a smaller sample taken six students for interviews in the qualitative phase to ensure varied writing achievement levels. Data collection during the quantitative phase involved an academic writing

test on the basis of IELTS Writing Task 2, where the students were required to create argumentative essays within a given time constraint. The essays were evaluated using the IELTS Writing Band Descriptors, with an emphasis on four categories: task response, coherence and cohesion, lexical resource, and grammatical range and accuracy (IELTS, 2023). The indicators were also modified to detect evidence of critical thinking, such as the use of evidence, logical reasoning, and argumentation. The scores were translated into band levels, percentages, and critical thinking labels to yield quantifiable data on students' skill.

The qualitative phase included content analysis and semi-structured interviewing of a selection of essays, as well as interviewing six students to take into account their thought process, views regarding writing assignments, and challenges in applying critical thinking. The interviews were done in semi-structured format in order to be amenable to following up developing themes while remaining consistent across informants. Quantitative data were analyzed descriptively using mean scores and percentages to identify general trends, while qualitative data were analyzed thematically following Braun and Clarke's (2006) framework to interpret recurring themes and contextual factors. Both data sets were then integrated to enhance validity through triangulation (Bekhet & Zauszniewski, 2012), ensuring that the interpretations were grounded in perspectives. By merging quantitative breadth and qualitative depth, the study sought to offer a general report of students' critical thinking capacities as observable in their academic writing.

LITERATURE REVIEW

Academic writing and critical thinking have been widely contested in educational research as both are seen as pillars of higher-order learning. Critical thinking is most commonly defined as the ability to analyze, evaluate, and synthesize information in problem solving and decision making (Halpern, 2001). It is regarded as a mainstay in enabling students to make good arguments, engage with a range of perspectives, and achieve intellectual autonomy (Tahira & Haider, 2019). The revision of Bloom's taxonomy also identifies analyzing, evaluating, and creating as the intellectual operations most strongly associated with critical thinking

(Anderson & Krathwohl, 2001). These operations are also highly consistent with writing requirements in academia, wherein not only do students need to express ideas clearly, but they must also demonstrate depth of thought and evidence-based judgment. Academic writing as a skill and as a tool of evaluation provides a structured format for the practice of critical thinking. Writing tasks demand coherence, logical structuring, and inclusion of sound evidence, the reason they are an effective means for encouraging reflective and analytical skills (Çavdar & Doe, 2012). A majority of studies, however, point out that EFL learners often face difficulties with integrating this process. (Teng & Yue, 2023), for example, found that whereas metacognitive strategies improved critical thinking and writing quality among Chinese students, there were lacunas in extended argumentation. Similarly, Tahira & Haider (2019) showed that EFL learners acknowledged the importance of critical thinking but could not apply it owing to pedagogical and cultural restrictions. The findings indicate a persistent gap between theory and action, particularly in non-native settings of English.

Findings

Quantitative Findings

The assessment of the essays of 45 students with the IELTS Writing rubric showed that their overall critical thinking was at an intermediate level. The mean scores on the four descriptors are presented in Table 1.

Table 1. Mean Scores of Students' Academic Writing (N = 45)

Indicator	Mean Score (0–9)	Interpretation
Task Response	6.15	Adequate
Coherence & Cohesion	6.01	Moderate
Lexical Resource	5.72	Limited range
Grammar & Accuracy	5.46	Weakness
Overall Band Score	5.83	Intermediate level

Students performed best in Task Response (M = 6.15), indicating that the majority were able to correctly answer the essay questions. Coherence and cohesion (M = 6.01) demonstrated medium performance, demonstrating a reasonable capacity to organize ideas. The lowest-scoring sections were Lexical Resource (M = 5.72) and Grammar & Accuracy (M = 5.46), indicating issues with vocabulary

range and grammatical accuracy. The total average score (Band 5.83) suggests that students' capacity to think critically, as demonstrated by writing, is moderate, with plenty of room for improvement in language-related areas.

Qualitative Findings

The qualitative findings of the study suggested that students demonstrated varying degrees of ability in applying critical thinking competencies in academic writing. In the area of the use of evidence, a complete contrast was observed between students who were able to apply relevant examples efficiently and those who experienced difficulties to go through generalization route. Several students effectively showed understanding of how evidence supports arguments. The majority of students, however, communicated descriptively and generically and lacked referent specifics or using proper sources to establish their strong arguments. These findings revealed that even though students were aware of the importance of exemplifying, they did not have the skills to locate, evaluate, and integrate credible evidence into their essays. Their uses of examples were intuitive in nature rather than research-based, and as such, they required direct training in scholarly source use and citation norms. From a logical perspective, the data revealed that high-achieving learners were able to structure arguments in a coherent and logically sequential manner.

Participants demonstrated that they were able to make assertions, justify them with reason, and join ideas with appropriate transitions. Lower achiever students, though, had a disjointed understanding of reasoning and merely listed unrelated ideas without clear explanation or connection between points. Their essays were found like a series of assertions rather than an argument with a systematic chain of reasoning. This disparity put in the limelight that while some students could demonstrate analytical thinking and logical coherence, most others struggled to connect ideas or support their claims beyond explanations on the surface. This finding suggested that the improvement of reasoning skill in writing requires being continued. Participants were very likely to need additional guided exercises and feedback comments on constructing effective argumentation.

The research further found a number of difficulties that prevented students from effectively using critical thinking. Most

participants commented that they felt challenged to obtain credible academic sources to use in substantiating their essays, partly because they received little training in research techniques and were not familiar with academic databases. Students also reported that their limited vocabulary too often kept them from being capable of delivering subtle or advanced arguments. In addition, they stated that they had difficulty in constructing counterarguments or even presenting opposing arguments, which are essential components of high-level critical thinking. This happened because there were not adequate models of argumentative writing and there did not have enough class periods to perform analytical arguments. These findings underscore that aside from linguistic competency, cognitive and metacognitive skills play a significant contribution to the exhibition of critical thinking in academic writing. From support structures, students pointed towards peer discussion and lecturer feedback as the most effective mechanisms for improving their writing and critical thinking.

Participants contended that group discussions allowed them to absorb views and contemplate different patterns of reasoning, which facilitated co-learning. Simultaneously, lecturer feedback also provided direction to revision and clarification of concepts. Feedback given by the majority of students also mentioned that feedback they got was generally "surface-level," and it dealt with mostly grammatical mistakes and sentence forms rather than argument quality or the use of evidence. This means that even though the support system is in place, they are not necessarily made full use of to turn out improved analytical and reasoning ability. In order to make the critical thinking even more effective, the feedback must cross the boundaries of language repair and steer the students toward more meaningful argument construction and evidence-based reasoning. Generally speaking, the outcomes indicate that the students possess the nascent ability in essay structuring and writing appropriately based on writing tasks.

Their capacity for applying higher-level critical thinking skills—particularly for using evidence and logical argumentation—is still spotty. The majority of the students continue to rely on memorized concepts and formulaic patterns of writing, which limit their ability for genuine analytical thought. The poor exposure to

argumentative templates, limited range of vocabulary, and insufficient emphasis on reasoning in teaching all limited their performance. Therefore, although the students' compositions are structurally competent, they lack analytical rigour that characterizes sophisticated critical thinking. This emphasizes the need for explicit training in evidence-based argumentation, practice in guided reason, and feedback regimes that promote increased intellectual effort in academic writing.

DISCUSSION

The findings suggest that students' overall critical thinking skill in academic writing is at an intermediate level. While most of the participants were able to respond to tasks appropriately and give ideas in a logical manner, lexical diversity and grammatical accuracy deficits hindered them from delivering advanced arguments. This trend aligns with prior research in Indonesia that highlights that EFL learners tend to face challenges with word choice, sentence construction, and systematic reasoning (Mulyasin et al., 2023). These language barriers would mean that inadequate language skills may restrict the full display of critical thinking skills in written work, even when students possess basic reasoning skills. Qualitative results also show that students resort to generalizations rather than evidence-based reasoning, which is a harbinger of difficulties in integrating credible sources into writing.

The current findings were in line with writing problems reported by Qamariah (2021). She concluded that the learners of EFL acknowledged the significance of critical thinking but faced challenges in putting it into practice in writing because they lacked proper instruction. In our study, the lack of formal feedback and limited access to academic resources were major hindrances, a contention already raised by Al-Hammadi & Sidek (2015). These results show that students need to be taught how to write analytically and given practice in how to evaluate and combine material from different points of view.

Overall, the presence of certain high-achieving children illustrates that critical thinking may be adequately fostered with efficient strategies and support structures. Students who performed well in logical thinking and the use of evidence were helped by active

engagement with peer discussions and focused lecturer comments. This concurs with that of Teng & Yue (2023), where they emphasized the utilization of metacognitive strategies to enhance critical thinking in writing. The research hence identifies a dual need: enhancing students' language proficiency while concurrently integrating critical thinking instruction into writing instruction. Through addressing these concerns, Indonesian higher education teachers are able to create improved conditions to foster more intensive thinking, stronger argumentation, and improved writing among academics (Nurislam et al., 2023).

CONCLUSION

This study focused on the critical thinking skills of fourth-semester English Education students at the University of Mataram by using the perspective of academic writing. The findings demonstrate that students can typically respond to tasks and arrange their ideas logically, but their performance stays at an intermediate level due to inadequacies in lexical variety, grammatical clarity, and argumentation based on evidence. According to qualitative investigation, students' capacity to display higher-order thinking in their writing is hampered by restricted access to academic materials, inadequate feedback, and language obstacles. These findings demonstrate that, while critical thinking is recognized as important, its use in academic writing remains inconsistent in practice.

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