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## **CRITICAL THINKING IN EFL ACADEMIC WRITING: INFLUENCING FACTORS AND STRATEGIC APPROACHES**

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### **Abstract**

Critical thinking is defined as a pivotal role in students' academic writing process, but in practice, the application of this skill often becomes quite a complex challenge for students as they formulate new ideas, analyse, evaluate, and synthesize information, and finally draw conclusions. Therefore, this study was conducted to explore the factors that influence EFL students' abilities and to investigate the strategies they use to develop critical thinking skills in academic writing, especially seventh-semester students majoring in English at a public university in Jambi. This study used a qualitative approach with a case study design. Data were gathered by using semi-structured interview with ten students. The researchers examined and interpreted the data collected using Braun and Clarke's stages of thematic analysis. The research findings indicate that EFL students face several factors that affect their ability to develop critical thinking in academic writing. These factors include personal competence issues such as a lack of topic knowledge, linguistic challenges, including difficulties with grammar and vocabulary; and psychological barriers, such as low motivation, lack of self-confidence, and anxiety during supervision. Despite these challenges, EFL students employ various strategies to overcome obstacles in developing critical thinking skills. These strategies include self-management, the use of technological support, cultivating a conducive learning atmosphere, leveraging support systems, and managing tutoring schedule effectively.

**Keywords:** academic writing, critical thinking, EFL students, factors, strategy

### **Introduction**

The development of science has grown rapidly and continues to undergo significant changes, requiring individuals to adapt to various global challenges through critical thinking. In education, critical thinking serves as the foundation for understanding complex scientific ideas and applying them effectively and relevantly (Jamil et al., 2024). Critical thinking enables students to move beyond surface-level comprehension, encouraging them to question assumptions, evaluate evidence, and construct well-reasoned arguments, skills that are essential for academic success and lifelong learning. Mayasari and Ramdiah (2023) noted that critical thinking is an intellectual process involving conceptualizing, applying, synthesizing, and evaluating information obtained from observation, experience, reflection, thought, or communication as a basis for belief and action. Furthermore, Samanhudi and Linse (2019) define critical thinking as the formulation of arguments, analysis, interpretation, and making sound judgments, as well as the mechanisms through which these processes operate.

Critical thinking is widely considered important in influencing all four language learning skills but plays a particularly crucial role in writing, which students often find challenging for various

reasons. According to [Purnawan et al. \(2024\)](#), writers face linguistic, physiological, and cognitive difficulties, making writing a demanding task as it involves creating, planning, drafting, revising, editing, and publishing. Academic writing, in particular, requires a high level of critical thinking as students must not only demonstrate language proficiency but also engage with sources critically, construct coherent arguments, and present original insights. In an academic setting, critical thinking is identified as an essential component of academic writing. EFL students undergo the process of academic writing through essays, theses, and dissertations that ultimately produce arguments. For many Indonesian EFL students, this challenge is compounded by the need to think and write critically in a foreign language, which adds an additional layer of complexity to an already demanding cognitive task. Additionally, English proficiency is a compulsory requirement in higher education, preparing EFL students to engage with academic literature predominantly written in English.

Despite its recognized importance, critical thinking in academic writing remains a significant challenge for many EFL students, particularly in Indonesian contexts where traditional teaching methods may not adequately foster these skills. Developing critical thinking in academic writing has been the subject of extensive research. [Adizovna \(2023\)](#) found that ESL learners struggle to organize their information and ideas for summarization due to lack of knowledge. Similarly, [Samanhudi and Linse \(2019\)](#) identified four important factors that impede students' critical thinking in essay writing: limited awareness of critical thinking, insufficient understanding of what critical thinking entails, differences in academic requirements, and inadequate English language skills. The findings of [Prasiska and Tohamba \(2021\)](#) confirmed that students face similar challenges in academic writing, including developing critical thinking, avoiding plagiarism, managing sentence structure, and receiving insufficient practice or training in academic writing. These studies collectively suggest that critical thinking difficulties in academic writing stem from multiple interconnected factors, ranging from cognitive and linguistic limitations to pedagogical and institutional constraints.

While international research has documented various challenges related to critical thinking in academic writing, there remains a notable gap in understanding how these challenges manifest in specific local contexts, particularly among Indonesian EFL students preparing undergraduate theses. After conducting several searches, the researchers found only a limited number of studies in Indonesia addressing critical thinking in academic writing at the undergraduate level, particularly within the Jambi context. For instance, [Thabran et al. \(2022\)](#) investigated challenges encountered by students in a Critical Reading and Writing course employing case-based learning. Their findings revealed that students experienced difficulties in group presentations, case selection, solution proposals, and response writing. Similarly, [Nawangsih et al. \(2024\)](#) examined challenges faced by EFL student teachers in academic writing and the strategies used to overcome them. The results highlighted several major categories of challenges, including writing mechanics, socio-cultural and psychological factors, critical thinking skills, unity, and literature review writing. The study also identified metacognitive, cognitive, and social strategies as approaches students employed to address these challenges. In addition, [Ananda et al. \(2024\)](#) explored difficulties faced by EFL students in writing argumentative essays, finding issues related to argument development and source integration.

Although these studies provide valuable insights, research specifically focusing on critical thinking in academic writing among seventh-semester undergraduate students preparing thesis proposals in Jambi remains limited. This stage of academic writing is particularly crucial as students transition from course-based writing assignments to independent research writing, which demands higher-order critical thinking skills. Understanding the specific factors that influence critical thinking development and the strategies students employ at this critical juncture can inform more

effective pedagogical interventions and support mechanisms. Therefore, the present study aims to examine the factors that influence EFL students' development of critical thinking skills in academic writing and the strategies they employ to overcome the associated challenges. Specifically, this study seeks to answer two research questions: (1) What factors influence EFL students' critical thinking abilities in academic writing? (2) What strategies do EFL students employ to develop critical thinking skills in academic writing?

## **Literature Review**

This section covers some relevant literature dealing with critical thinking and academic writing. By understanding the concept of critical thinking and how it manifests into academic writing, students can use their analytical and critical process effectively. Building on these definitions, critical thinking in academic contexts can be understood through several key dimensions. [Facione \(1990\)](#) identified six core critical thinking skills: interpretation, analysis, evaluation, inference, explanation, and self-regulation. In academic writing, these skills manifest as students interpret sources, analyze arguments, evaluate evidence quality, make inferences to support claims, explain their reasoning clearly, and reflect on their own writing processes. Understanding these dimensions provides a framework for identifying where students face challenges and which strategies support specific aspects of critical thinking development.

## ***Theoretical framework***

This study is grounded in sociocultural theory of learning ([Vygotsky, 1978](#)), which emphasizes that cognitive development, including critical thinking, occurs through social interaction and is mediated by cultural tools and artifacts. In the context of academic writing, students develop critical thinking not in isolation but through engagement with texts, peers, supervisors, and technological tools. This framework helps explain why support systems, mentorship, and collaborative learning emerged as significant strategies in students' critical thinking development. Additionally, this study draws on metacognitive theory ([Flavell, 1979](#)), which posits that awareness and regulation of one's own thinking processes are essential for effective learning. The self-management strategies identified in this study, such as setting deadlines, building writing habits, and reading literature reflect students' metacognitive engagement in managing their critical thinking processes during thesis writing. These two theoretical perspectives provide complementary lenses for understanding both the social and cognitive dimensions of critical thinking development in academic writing.

## ***Concept of critical thinking***

Defining critical thinking creates a lot of uncertainty and disagreement regarding its many complex aspects and how the concept is applied. Experts from various disciplines have different views on the main elements that should be included in critical thinking. [Norris and Ennis \(1989\)](#) as cited in [Arslan et al. \(2014\)](#) define critical thinking as "a deep and reflective thinking process that focuses on making decisions about beliefs or actions to be taken. Another view is said by, [Sternberg \(1987\)](#) as cited in [Shaheen \(2012\)](#) sees critical thinking as mental processes, strategies, and representations that individuals use to solve problems, make decisions, and learn new concepts. In addition, [Forbes \(2018\)](#) argues that critical thinking is specialized and closely related to certain disciplines, so that to become a critical thinker, a deep understanding of the knowledge contained therein is needed. This is in line with [Emily \(2011\)](#) who argues that critical thinking is

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essentially related to a particular field of knowledge and, therefore, is very specific to a discipline and cannot be transferred between disciplines. In conclusion, critical thinking, as has been described by the experts above, is a valuable life skill. Every individual will from time to time encounter situations where they have to decide what to believe or do in their daily lives.

### ***Critical thinking in academic writing***

Critical thinking is widely recognized as an important high-level skill in learning in a university context (Giselsson, 2020). One of the activities that students often do during college is academic writing. This statement is supported by Purnawan et al. (2024) who indicates that critical thinking, when combined with a process such as writing, is difficult to acquire and even teach. In the context of academic writing, this process requires students to think critically when analyzing and evaluating their ideas which will then be developed into an essay. Loo (2020) argues that learners need to demonstrate their critical thinking by evaluating sources, constructing arguments, and synthesizing ideas in their academic writing. In higher education institutions, critical thinking skills are best developed in an environment where students are exposed to academic writing. Forms of academic writing in higher education include scientific articles, essays, term papers, theses, and dissertations, which are requirements for obtaining a bachelor's, master's, or doctoral degree. Therefore, these forms of assignments require students to have excellent ideas, organize ideas comprehensively, have novelty, and have grammatical accuracy. Furthermore, Pramonojati et al. (2020) argues that academic writing and critical thinking are seen as closely related, and the ability to write academically is considered an indicator that students have mastered the critical thinking skills needed to succeed in a college environment. Thus, critical thinking in academic writing complements each other and enhances students' ability to articulate their thoughts effectively in written form.

Several studies have investigated the challenges EFL students face in developing critical thinking within academic writing contexts. Internationally, research has identified linguistic barriers, cultural differences in educational approaches, and insufficient training as primary obstacles (Samanhudi & Linse, 2019; Adizovna, 2023). In the Indonesian context, Prasiska and Tohamba (2021) found that students struggle with critical thinking development, plagiarism avoidance, and sentence structure. More recently, Nawangsih et al. (2024) explored challenges faced by EFL student teachers, identifying writing mechanics, psychological factors, and critical thinking skills as key areas of difficulty. However, most existing studies focus on general academic writing contexts or early-stage students. Research specifically examining seventh-semester students who are at the critical juncture of thesis proposal writing where independent research and advanced critical thinking converge remains scarce, particularly in regional Indonesian universities such as those in Jambi. This study addresses this gap by focusing on this specific population and their unique challenges and strategies.

Given the complexity of factors influencing critical thinking development and the variety of strategies students may employ, a qualitative case study approach is deemed most appropriate for exploring the lived experiences of seventh-semester students as they navigate thesis proposal writing. The following section details the methodological approach adopted in this study.

### ***Critical thinking challenges in EFL contexts***

EFL students face unique challenges in developing critical thinking through academic writing due to the dual demands of language proficiency and higher-order thinking skills. Paton (2005) argues that thinking critically in a second language requires not only linguistic competence

but also familiarity with Western academic discourse conventions that may differ from students' native academic traditions. In Indonesian contexts, where educational systems have historically emphasized memorization and teacher-centered learning (Marcellino, 2008), students may have limited exposure to pedagogical approaches that foster critical questioning and independent argumentation. This cultural-pedagogical gap becomes particularly pronounced at the thesis writing stage, where students must demonstrate autonomous critical thinking while navigating linguistic and rhetorical challenges in English.

## **Methodology**

### ***Research design and approach of the study***

In this study, a qualitative research design with a case study approach was applied in order to get a better understanding of the factors influencing EFL students to develop their critical thinking in academic writing and their strategies to overcome the challenges in developing their critical thinking in academic writing. A qualitative research design is a type of design used to explore and understand a social phenomenon or human problem from the perspectives or experiences of participants in natural settings (Creswell, 2014). The case study approach was deemed most appropriate because it allows for in-depth exploration of a contemporary phenomenon, critical thinking development in thesis writing within its real-life context (Yin, 2018).

This approach enables the researchers to capture the complexity and uniqueness of seventh-semester students' experiences as they navigate the critical juncture between coursework and independent research. It means that the problems and strategies of students were examined in their natural setting, or the site where they experienced the problems.

### ***Research site and participants***

In selecting participants, the researchers used purposive sampling in recruiting participants. The study involved ten seventh-semester English majors from a public university in Jambi. These participants met the criteria established by the researchers; first, they were active undergraduate EFL students; second, they were EFL students who were working on their thesis; third, they had attended a proposal seminar. The participants were also willing to participate in this study. As a general procedure in qualitative research, the researchers also ensured confidentiality by assuring participants that all data provided and the participants' real identities would be replaced with anonymous names or codes.

### ***Data collection and analysis***

#### ***Data collection***

The researchers collected data individually and directly through interviews in this study. To obtain data, the researchers used semi-structured interviews to formulate and develop questions based on participants' experiences and opinions. In this study, interviews were conducted face-to-face or online, depending on the availability of participants. The entire interview process was recorded through a device used by the researchers, and then the interviews were transcribed for analysis. Each interview session lasted between 20 to 30 minutes. In the interview process, participants could respond to questions in Indonesian or English. The use of this preferred language allowed participants to talk more freely about their experiences. The researchers used an

interview protocol to guide the interview process. This protocol was formulated based on relevant previous research (Islamiyah and Al Fajri, 2020; Prasiska and Tohamba, 2021; Samanhudi and Linse, 2019) and was designed to provide answers relevant to the research questions. The interview protocol consisted of two main sections aligned with the research questions. The first section explored factors influencing critical thinking development, with questions such as "What challenges do you face when trying to think critically in your thesis writing?" and "What internal or external factors make it difficult for you to analyze sources critically?" The second section examined strategies employed by students, including questions like "What specific actions do you take to overcome difficulties in critical thinking?" and "How do you manage your time and resources when writing your thesis?" Follow-up probes were used to elicit deeper responses and clarify participants' experiences.

### ***Data Analysis***

In terms of data analysis, the researchers examined it using thematic analysis. Thematic analysis is a method for identifying, analyzing, and reporting patterns (themes) within qualitative data (Braun & Clarke, 2006). This approach allows researchers to interpret various aspects of the research topic through systematic coding and theme development. The researchers observed patterns and themes in the interview transcripts to identify key points and recurring themes, applying the steps of thematic analysis by Braun and Clarke (2006). They consisted of familiarizing with the data, generating initial codes, searching for themes, reviewing themes, defining themes, and producing the report.

In the initial phase, the researchers familiarized themselves with the data by listening to recordings, making copies, and studying transcriptions for quite a long time. Moreover, the researchers made an initial code. In the process of generating data, the researchers highlighted important parts of the transcription. The next step involved identifying themes. At this stage, the researchers combined several codes into one theme. After finding the themes, the next step was to review the themes. The researchers ensured that the themes were accurate and useful to represent the data. The next step was to determine the theme. In deciding and naming the themes, the researchers interpreted and named each theme. In the last step, the researchers documented the findings and discussions in a report.

### ***Ethical considerations***

This study adhered to ethical principles in qualitative research. Prior to data collection, ethical approval was obtained from Jambi university. All participants were provided with informed consent forms explaining the purpose of the study, their rights to withdraw at any time without penalty, and assurance of confidentiality. Participants were informed that their real identities would be replaced with pseudonyms (F1-F10) in all research reports and publications. Audio recordings and transcripts were stored securely and accessible only to the research team. Participants were also given the opportunity to review their interview transcripts and provide feedback through member checking, ensuring their voices were accurately represented.

### ***Researcher positionality***

As lecturers in the English Education program at the same university, the researchers bring insider knowledge of the institutional context and challenges students face in thesis writing. While this positionality provided valuable contextual understanding, the researchers maintained

reflexivity throughout the study by keeping reflective journals, discussing interpretations with peers, and employing member checking to minimize potential bias. None of the researchers served as thesis supervisors for the participants to avoid power dynamics that could influence responses.

### ***Trustworthiness***

To ensure the rigor and quality of this qualitative study, the researchers applied Lincoln and Guba's (1985) four criteria for trustworthiness. Credibility was strengthened through triangulation across multiple participants and member checking, where participants reviewed and clarified preliminary interpretations. Transferability was enhanced through thick descriptions of the research context, participants' backgrounds, and institutional settings. Dependability was achieved by maintaining a comprehensive audit trail documenting all stages of data collection and analysis. Confirmability was maintained by grounding interpretations in participants' statements, with quotations supporting each theme to ensure findings reflected participants' perspectives rather than researcher bias.

### **Findings**

#### ***Factors influence EFL students' ability to develop critical thinking in academic writing***

The analysis of interview data revealed three major themes related to factors that influence EFL students' ability to develop critical thinking in academic writing: personal competence factors, linguistic factors, and psychological factors. Each theme encompasses several sub-themes that emerged consistently across participants' narratives. These factors, while distinct in nature, often interact and compound one another, creating complex barriers to critical thinking development during the thesis writing process. Table 1 presents the complete thematic structure, including the codes derived from participants' responses.

**Table 1.** *Factors influencing EFL students' ability to develop critical thinking in academic writing*

Themes	Sub-themes	Codes
Personal competence factors	Lack of topical knowledge	<ul style="list-style-type: none"> <li>- Insufficient understanding of thesis material</li> <li>- Limited desire to learn deeply</li> <li>- Difficulty finding relevant references</li> <li>- Challenges in topic selection</li> <li>- Laziness to read journals</li> </ul>
Linguistics factors	Insufficient vocabulary	<ul style="list-style-type: none"> <li>- Difficulty with sentence structure</li> <li>- Struggle with academic language complexity</li> <li>- Problems translating academic content</li> </ul>
	Insufficient vocabulary	<ul style="list-style-type: none"> <li>- Limited English vocabulary mastery</li> <li>- Reliance on Grammarly for vocabulary checking</li> <li>- Need to translate English journals to Indonesian</li> </ul>

Psychological factors	Low motivation	<ul style="list-style-type: none"> <li>- Procrastination in writing</li> <li>- Laziness to start thesis work</li> <li>- Lack of initial drive to begin writing</li> </ul>
	Lack of self-confidence	<ul style="list-style-type: none"> <li>- Hesitation in writing</li> <li>- Postponing writing tasks</li> <li>- Fear of producing inadequate output</li> <li>- Perfectionism leading to delays</li> </ul>
	Anxiety in mentorship	<ul style="list-style-type: none"> <li>- Fear of supervisor's judgment</li> <li>- Avoiding guidance meetings</li> <li>- Worry about concept approval</li> <li>- Fear of being scolded by supervisor</li> </ul>

The following sections provide detailed descriptions of each theme, supported by direct quotations from participants to illustrate how these factors manifested in their experiences.

### ***Personal competence factors (lack of topical knowledge)***

The first major theme that emerged from the data analysis was personal competence factors, specifically the lack of topical knowledge. This factor was consistently identified across participants as a fundamental barrier to critical thinking development in academic writing. When students lack deep understanding of their research topics, their ability to analyze, evaluate, and synthesize information becomes severely constrained. This deficiency manifested in multiple ways across the participants' experiences. Several participants explicitly acknowledged their insufficient understanding of thesis material as a primary obstacle. For instance, one student stated:

*"...internally, maybe I haven't understood the material about my thesis." (F4)*

This statement reveals F4's awareness that inadequate comprehension of the subject matter hindered his capacity to engage critically with academic sources. The problem extended beyond mere lack of information to encompass a fundamental gap in conceptual understanding necessary for critical analysis. Beyond insufficient knowledge, some participants also demonstrated limited intrinsic motivation to develop deeper understanding. F5 candidly expressed this challenge:

*"...every student needs to think critically... Yeah, but I could say that I'm not someone who wants to think critically because I don't have the desire to learn more about something." (F5)*

While F5 recognized the importance of critical thinking, the lack of intellectual curiosity created a significant barrier in the academic research process. This suggests that critical thinking development requires not only cognitive skills but also dispositional elements such as intellectual engagement and curiosity. The lack of topical knowledge also manifested in practical difficulties with literature engagement. F7 described the challenge of maintaining motivation when confronting complex academic texts:

*"Just reading it, I'm already lazy, and finding references that match or relate to the title is also difficult." (F7)*

This response indicates that F7's limited familiarity with the topic contributed to both comprehension difficulties and motivational decline. The inability to understand journal content led to disengagement, creating a cycle where lack of knowledge prevented further knowledge

acquisition. The complexity of academic language combined with unfamiliarity with the subject matter created compounding obstacles to literature review and critical engagement with sources. Additionally, the challenge of topic selection itself emerged as an early barrier requiring critical thinking. F10 explained:

*"Deciding on a topic is difficult; it automatically requires us to think critically about what topic is suitable for my thesis writing." (F10)*

This statement reveals that critical thinking challenges begin even before the actual writing process, as students must evaluate their interests, assess feasibility, and determine research significance, all requiring analytical judgment. Collectively, the experiences of F4, F5, F7, and F10 demonstrate that insufficient topical knowledge operates as a foundational barrier to critical thinking in academic writing. Without adequate subject matter understanding, students struggle to engage meaningfully with literature, evaluate arguments, or construct original scholarly contributions.

#### ***Linguistic factors (lack of grammar and insufficient vocabulary)***

The second major theme identified was linguistic factors, encompassing both grammatical challenges and vocabulary limitations. As EFL learners writing in a second language, participants faced the dual challenge of developing critical thinking while simultaneously navigating linguistic complexity. Language proficiency emerged not merely as a technical skill but as a fundamental enabler—or in this case, barrier—to critical thinking expression in academic writing. Two distinct sub-themes emerged: lack of grammar and insufficient vocabulary.

***Lack of grammar***, grammatical challenges manifested primarily in difficulties with sentence structure and comprehension of complex academic prose. F3 described her struggle with academic language conventions:

*"I was getting bored because the language in the journal was too academic... So, I had trouble translating or understanding the content." (F3)*

F3's response reveals how grammatical complexity in academic journals created comprehension barriers that extended beyond simple vocabulary issues. Academic discourse employs specialized syntactic structures, such as nominalization, passive voice, and embedded clauses that differ markedly from everyday language. When students lack familiarity with these grammatical patterns, their ability to extract meaning from sources becomes compromised, thereby limiting their capacity to analyze and evaluate scholarly arguments critically. The emotional dimension of F3's response, expressing boredom, suggests that grammatical difficulties also affected engagement and motivation. This indicates that linguistic barriers not only impede comprehension but also create affective obstacles to sustained critical engagement with academic literature.

***Insufficient vocabulary***, vocabulary limitations emerged as a distinct but related challenge. F6 explicitly identified vocabulary as her primary linguistic obstacle:

*"I find it difficult with English, especially with vocabulary. Sometimes, I need Grammarly to check my vocabulary." (F6)*

F6's reliance on technological assistance (Grammarly) highlights how vocabulary deficiencies constrained her independent writing capacity. More significantly, she explained the coping strategy of translation:

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*"...the use of English journals would be much more difficult to understand because they had to be translated into Indonesian first so that they are easy to read!"*

This translation dependency reveals a critical limitation: when students must first translate content into their native language, the cognitive load increases substantially, leaving fewer mental resources for higher-order critical thinking tasks such as analysis and evaluation. Moreover, translation may result in loss of nuanced meaning, potentially affecting students' ability to engage critically with source material. The interplay between grammar and vocabulary deficiencies created a compounding effect. Students not only struggled to decode academic texts but also found it challenging to encode their own critical insights into academically appropriate English prose. This dual barrier: receptive and productive significantly constrained students' ability to demonstrate critical thinking in their written work, even when such thinking might be present in their cognitive processes.

***Psychological factors (low motivation, lack of self-confidence, anxiety in mentorship)***

The third major theme encompassed psychological factors that influenced students' critical thinking development. Unlike competence-based or linguistic barriers, psychological factors relate to affective and emotional dimensions of the writing process. The data revealed three interrelated sub-themes: low motivation, lack of self-confidence, and anxiety in mentorship. These psychological barriers often interacted with and amplified the effects of other challenges students faced.

**Low motivation**, motivation emerged as a fundamental psychological factor affecting students' engagement with critical thinking tasks. Almost all participants reported experiencing motivational challenges at various stages of thesis writing. F1 articulated this struggle:

*"The obstacle is that I often feel lazy when I want to start writing my thesis, I have to gather motivation first." (F1)*

F1's statement reveals that low motivation created an initial barrier to engagement, resulting in procrastination and delayed initiation of writing tasks. This lack of motivational drive prevented students from taking the essential first steps in critical thinking processes, such as reading literature and analyzing sources. The need to "gather motivation" suggests that thesis writing was not intrinsically rewarding for F1, requiring deliberate effort to overcome resistance. Low motivation appeared to create a negative cycle: lack of motivation led to procrastination, which resulted in time pressure, further decreasing motivation and increasing anxiety. This cycle particularly affected critical thinking because such higher-order cognitive processes require sustained mental effort and engagement that low motivation undermines.

**Lack of self-confidence**, the second psychological sub-theme identified was lack of self-confidence, which emerged as a significant barrier to active engagement in the writing process. Self-confidence plays a crucial role in academic writing because it influences students' willingness to take intellectual risks, articulate original ideas, and persist through challenges. When self-confidence is diminished, students tend to withdraw from situations requiring active participation in writing, thereby limiting opportunities to practice and develop critical thinking skills. Several participants reported experiencing self-doubt that led to hesitation and procrastination. F8 articulated this challenge:

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*"...When I have something to write, I always feel hesitant and postpone the writing, because I feel that there will be better writing later." (F8)*

F8's statement reveals a form of perfectionism intertwined with low self-confidence. The belief that "there will be better writing later" reflects an inability to accept current work as adequate, leading to perpetual postponement. This perfectionistic tendency, paradoxically, prevented F8 from engaging in the iterative process of drafting, revising, and refining, activities essential for developing critical thinking through writing. By waiting for ideal conditions or perfect ideas, F8 missed opportunities to practice analytical and evaluative thinking through actual writing attempts.

This pattern of hesitation and postponement had tangible consequences. Students who lacked confidence in their writing abilities often avoided engaging deeply with their thesis work, resulting in missed opportunities for intellectual growth and skill development. The fear of producing inadequate output prevented them from receiving formative feedback that could guide improvement. Consequently, lack of self-confidence created a self-reinforcing cycle: avoidance of writing led to limited practice, which in turn perpetuated feelings of inadequacy and further eroded confidence.

In addition, low self-confidence appeared to interact with other factors identified in this study. For instance, students who struggled linguistically (due to grammar or vocabulary limitations) were more likely to doubt their writing abilities, and those lacking topical knowledge felt less confident in articulating arguments. This interconnection suggests that building self-confidence requires addressing multiple dimensions of writing competence simultaneously.

**Anxiety in mentorship**, the third psychological sub-theme was anxiety in mentorship, which emerged as a particularly salient barrier for students navigating the thesis supervision process. The supervisor-student relationship is central to thesis development, providing guidance, feedback, and intellectual scaffolding. However, when this relationship is characterized by anxiety and fear, it can paradoxically become an obstacle rather than a support mechanism for critical thinking development. Several participants reported experiencing significant anxiety related to supervisory interactions. F10 candidly described these fears:

*"I feel scared if my concept is not in accordance with what the supervisor asks for and afraid of meeting with the supervisor...afraid of being scolded." (F10)*

F10's statement reveals multiple dimensions of mentorship anxiety. First, there was fear of academic inadequacy, the worry that her conceptual understanding or research design would not meet supervisory expectations. Second, there was interpersonal anxiety about the supervisory encounter itself. The fear of "being scolded" suggests that F10 perceived the supervisory relationship as evaluative and potentially punitive rather than developmental and supportive. This perception fundamentally altered how she approached guidance sessions, viewing them as threatening situations to be avoided rather than opportunities for learning and growth.

The consequences of mentorship anxiety were substantial. Students experiencing such anxiety often chose avoidance as a coping strategy, deliberately postponing or skipping guidance meetings. As the researchers observed, F1 and F4 also faced similar situations where they frequently avoided guidance sessions. This avoidance behavior created a problematic pattern: by circumventing supervisory feedback, students lost access to expert guidance that could identify gaps in their critical thinking, suggest alternative analytical approaches, or challenge weak arguments. The very support system designed to facilitate critical thinking development became inaccessible due to anxiety-driven avoidance.

Furthermore, mentorship anxiety shifted students' cognitive focus away from productive critical thinking toward worry and self-protection. Rather than concentrating on analytical tasks, such as evaluating evidence, constructing arguments, or synthesizing literature, students preoccupied themselves with anticipated negative outcomes and potential criticism. This mental energy devoted to anxiety management represented a cognitive resource that could otherwise support critical thinking processes.

The fear of supervisory judgment also appeared to inhibit intellectual risk-taking and authentic idea exploration. Students hesitant to propose unconventional interpretations or challenge existing assumptions, core elements of critical thinking due to fear of disapproval were unlikely to develop robust analytical capabilities. The anxiety created a constraining effect on intellectual independence and creative scholarly thinking. Collectively, these three psychological factors: low motivation, lack of self-confidence, and anxiety in mentorship operated as affective barriers that impeded critical thinking development even when students possessed requisite cognitive abilities. The findings suggest that critical thinking in academic writing is not purely a cognitive or technical skill but is fundamentally shaped by emotional and psychological dimensions of the learning experience.

Synthesis of Factors while these three major themes: personal competence factors, linguistic factors, and psychological factors, have been presented separately for analytical clarity, participants' experiences revealed their deeply interconnected nature. The factors operated not in isolation but as part of a complex system where challenges in one domain amplified difficulties in others. For instance, linguistic challenges (such as difficulty understanding complex academic language in journals) contributed to personal competence gaps (lack of topical knowledge due to comprehension barriers), which in turn triggered psychological barriers (demotivation arising from frustration with difficult texts, and low self-confidence stemming from perceived inadequacy).

Similarly, anxiety in mentorship could exacerbate lack of topical knowledge when students avoided seeking clarification from supervisors, while insufficient vocabulary might intensify self-doubt about writing quality. This complex interplay suggests that interventions designed to support critical thinking development in academic writing must adopt a holistic, integrated approach rather than targeting isolated factors. Addressing linguistic challenges alone, for example, may prove insufficient if psychological barriers prevent students from applying improved language skills. Likewise, motivational support may have limited effectiveness if students continue to struggle with fundamental competence or language issues. Understanding these factors as interconnected components of a broader system provides important insights for pedagogical practice and institutional support mechanisms. The following section presents the strategies students employed to navigate these multifaceted challenges, offering practical insights into how learners can develop agency and resilience in the face of complex barriers to critical thinking development.

### ***Strategies applied by EFL students to develop critical thinking skills in academic writing***

Despite the multifaceted challenges described above, participants demonstrated agency and resourcefulness in developing strategies to overcome barriers to critical thinking in their thesis writing. The analysis revealed five major strategic themes that students employed: self-management, technological support, learning atmosphere, support systems, and mentorship schedule management. Table 2 presents the complete thematic structure of these strategies.

**Table 2.** *Strategies applied by the students to develop critical thinking in academic writing*

Themes	Sub-themes	Codes
Self-management	Reading of literature	<ul style="list-style-type: none"> <li>- Reading senior theses as references</li> <li>- Using previous research with similar topics/methods</li> <li>- Analyzing and evaluating literature sources</li> <li>- Conducting critical analysis of existing studies</li> </ul>
	Setting deadlines	<ul style="list-style-type: none"> <li>- Allocating specific time for thesis tasks</li> <li>- Creating personal deadlines for each writing stage</li> <li>- Using deadlines to maintain focus</li> <li>- Time management to avoid other distractions</li> </ul>
	Building writing habits	<ul style="list-style-type: none"> <li>- Writing consistently on a weekly basis</li> <li>- Typing small portions regularly</li> <li>- Maintaining writing accountability</li> <li>- Ensuring continuous progress in writing</li> </ul>
Technological Support	Artificial Intelligence	<ul style="list-style-type: none"> <li>- Using ChatGPT to extract quotes from researchers</li> <li>- Using ChatGPT as sentence refresher</li> <li>- Using AI Summarizer to summarize long journals</li> <li>- Using Perplexity AI to find journal references with links</li> <li>- Leveraging AI tools for time-saving strategies</li> <li>- Using AI to identify important points in journals</li> </ul>
Learning Atmosphere	Quiet learning atmosphere	<ul style="list-style-type: none"> <li>- Seeking distraction-free environment</li> <li>- Creating conducive space for focus and concentration</li> <li>- Minimizing external disruptions during writing</li> <li>- Ensuring quiet conditions for critical thinking development</li> </ul>
Support system	Peer support	<ul style="list-style-type: none"> <li>- Working together with friends on thesis</li> <li>- Sharing different points of view</li> <li>- Correcting each other's writing</li> <li>- Developing accountability through peer interaction</li> <li>- Engaging in collaborative discussions</li> </ul>
	Family support	<ul style="list-style-type: none"> <li>- Receiving emotional encouragement from family</li> </ul>

Mentorship Schedule Management	Intensive guidance	<ul style="list-style-type: none"> <li>- Family maintaining conducive home atmosphere</li> <li>- Getting mental support for writing focus</li> <li>- Family minimizing household distractions</li> </ul>
		<ul style="list-style-type: none"> <li>- Regular consultation with thesis supervisor</li> <li>- Preparing knowledge before guidance sessions</li> <li>- Receiving continuous feedback from supervisor</li> <li>- Making iterative revisions based on feedback</li> <li>- Ensuring understanding of written content before consultation</li> </ul>

**Self-management** emerged as the most comprehensive strategic theme, encompassing three interconnected approaches that students used to regulate their own learning processes. First, students engaged in deliberate reading of literature, using senior theses and previous research as analytical models. F2 explained:

*"By looking at senior theses for example, the same topic or method can be used as a reference for my thesis."*

This approach allowed students to observe how others structured arguments and engaged critically with sources, providing concrete examples of critical thinking in practice. Second, five out of ten participants emphasized the importance of setting deadlines to maintain focus and momentum. F5 articulated this necessity:

*"I am someone who needs deadlines, because if there is no deadline I will be busy with other activities... so, I cannot focus on my thesis."*

Deadlines functioned as external structures that helped students allocate sufficient time for the analytical thinking required in thesis writing, counteracting tendencies toward procrastination. Third, building writing habits through consistent, incremental practice emerged as a key strategy. F8 described this approach:

*"In a week, I make sure to type something, even if it's just a little bit... I always remind myself that what I write from the beginning must be accounted for as soon as possible...so as not to forget."*

Regular writing practice, even in small portions, maintained engagement with the material and provided ongoing opportunities to develop critical thinking skills through active writing rather than passive contemplation.

**Technological support (artificial intelligence)**, nearly all participants reported using artificial intelligence tools to support various aspects of their critical thinking and writing processes. Students employed AI strategically for specific tasks: extracting relevant quotations from literature, summarizing lengthy journal articles, refining sentence structure, and locating relevant academic sources. F7 explained:

*"I use an AI called GPT...through chat GPT, I extract quotes from previous researchers; besides I utilize GPT chat as a sentence refresher."*

Similarly, F8 used Perplexity AI for reference discovery:

*"when using this AI, there is already a journal name along with the link."*

However, students appeared to use AI as a supportive tool rather than a replacement for their own thinking. AI functioned primarily to reduce cognitive load on mechanical tasks (such as summarization or grammar checking), thereby freeing mental resources for higher-order analytical work. As one participant noted, AI served as "*a brainstorming assistant that strengthens the thinking process*," not as a substitute for critical engagement with sources.

**Learning atmosphere (quiet learning atmosphere)**, several students identified environmental factors as important enablers of critical thinking. They deliberately sought quiet, distraction-free spaces that facilitated concentration and deep analysis. F3 explained the importance of environmental control:

*"For me, it depends on the environment; when I want to read or develop critical thinking, the environment should be really quiet so that there are no distractions and I can focus on my thesis."*

This strategy reflects an understanding that critical thinking requires sustained attention and that external disruptions can fragment the analytical process.

**Support system (peer support and family support)**, students drew on both peer and family support to navigate the challenges of thesis writing. Peer support provided intellectual and practical assistance, with students working collaboratively to share perspectives and provide mutual feedback. F4 described this collaborative approach:

*"I usually invite friends to work on the thesis together...so if I'm confused, we can share points of view and correct each other's writing."*

This peer interaction created opportunities for dialogue that could challenge assumptions and refine arguments, core elements of critical thinking development. Family support, while less directly intellectual, provided crucial emotional scaffolding and environmental conditions conducive to focused work. F8 appreciated her family's role:

*"My family always provides support...sometimes they keep the atmosphere of the house conducive because I am easily distracted by commotion."*

This emotional encouragement and practical environmental management helped sustain students' engagement with demanding critical thinking tasks over extended periods.

**Mentorship schedule management (intensive guidance)**, despite the anxiety associated with supervisory interactions reported earlier, some students strategically managed mentorship schedules to maximize the benefits of supervisory feedback. F10 emphasized the importance of regular consultation:

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*"The key to quickly completing the thesis is to diligently guide the lecturer ... when I want to guide I already have the knowledge first, at least I understand what I wrote is correct."*

This approach involved preparing thoroughly before guidance sessions and seeking feedback consistently rather than sporadically. Intensive guidance provided iterative opportunities for supervisors to identify weaknesses in reasoning, suggest alternative analytical approaches, and scaffold students' development of increasingly sophisticated critical thinking. Strategic Integration

These five strategic themes demonstrate that students did not passively accept barriers to critical thinking but actively developed compensatory approaches. The strategies often worked synergistically: self-management practices created regular opportunities for writing, technological tools reduced mechanical burdens, supportive environments enhanced concentration, peer and family support provided encouragement, and supervisory guidance offered expert feedback. Together, these strategies represent a comprehensive toolkit that students assembled to navigate the complex challenges of developing critical thinking in academic writing.

## **Discussion**

This study investigated the factors influencing EFL students' critical thinking development in academic writing (RQ1) and the strategies they employed to overcome associated challenges (RQ2). The findings, derived from interviews with ten seventh-semester English Education students, provide insights into both the barriers students face and the agentic approaches they use to navigate these obstacles. This discussion interprets the findings in relation to existing literature and the study's research questions.

### ***Factors influencing EFL students' ability to develop critical thinking in academic writing***

It was found in this study that the lack of topical knowledge is a factor that can hinder EFL students' expression of criticality. When students are able to build their literacy well, such as reading a lot and looking for reference sources, then they will be faster in completing their thesis. But on the contrary, as found by [Barus \(2022\)](#) the lower the literacy ability, the slower the literacy ability. Students will complete their thesis. This means that the problem most often occurs due to the lack of access to the literature needed, thus affecting their ability to present arguments.

Another problem that inhibits students from expressing their critical thinking in written form relates to the lack of grammar. This can be seen from the quotes of Students F3 and F6, they stated that linguistic difficulties made them reluctant or lazy to write in English because of the difficulty of expressing ideas through correct and varied clauses that must be written in accordance with grammar rules and lack of vocabulary. The theory put forward by [Islamiyah and Al Fajri \(2020\)](#) supports this finding, they revealed that most students find it difficult to express their critical thinking because they lack of grammar skills. The second problem revealed in the analyzed data is vocabulary. This finding correlates with the research of [Dhuli et al. \(2023\)](#) who mentioned that students with high vocabulary mastery tend to show effective writing performance, whereas students with low vocabulary knowledge reveal difficulties in performing academic writing.

From the findings that lack of motivation is one of the most mentioned factors by students. Each student tends to be lazy in writing; it could be that they lack of critical thinking skills. Related to the results of this study, [Muflihun and Tohamba \(2021\)](#) found that the ability to produce academic writing in English for ESL students is influenced by several factors, one of which is lack of motivation. Another inhibiting factor is the lack of self-confidence. This shows that students

often feel worried about mistakes that might occur and feel dissatisfied with their own writing. This finding is also supported by research conducted by [Izza and Lailiyah \(2024\)](#) which shows that students have low self-confidence because they feel pessimistic in working on their thesis. The last finding is mentorship anxiety. The fact that when students get negative comments, it will bring up a sense of concern and avoid something that leads to functional mental disorders. Overall, the findings of this study is in line with what [Untari et al. \(2022\)](#) found that negative feelings that arise when dealing well with thesis supervisors include tension, anxiety, stress, frustration, low self-esteem, which can cause students to delay the preparation of the thesis, some even decide not to complete their thesis.

***Strategies applied by EFL students to develop critical thinking skills in academic writing***

Self-management strategy is one of the approaches students use to manage time in order to achieve goals effectively. In this study, there are several strategies that students apply. First strategy is diligently reading of literature. This study is in line with the [Husna's study \(2019\)](#) which found many ESL/EFL students in the Rasht Branch of Azad University through their extensive reading exposure can improve critical thinking patterns. The next finding was setting deadlines.

They revealed that without a clear deadline, they found it difficult to focus their attention on their thesis. This study also confirms the findings of [Ompusunggu's study \(2022\)](#) which identified there is a significant relationship between setting deadlines and thesis procrastination. So, it can be concluded that the lower a student's ability to manage time, the higher the level of procrastination in students. Therefore, setting deadlines is a good first step to improve the progress and quality of their work. The last strategy is to build writing habits. By writing habits, students recognize that writing just a little bit each week is an important step to ensure steady progress and take responsibility for the writing process. As stated by [Rahmani and Waliaratu \(2024\)](#), writing habits have a positive influence on the development of students' writing skills when faced with academic tasks such as the preparation of thesis proposals.

The next strategy that participants used to overcome their challenges was technological support such as AI. In line with the findings, students (F7, F9 & F10) emphasized the existence of AI, they utilized several AIs such as GPT chat, Perplexity AI, and AI Summarizer as partners to support the critical thinking process in compiling their writing arguments. The results of this study is consistent with the findings of [Ipek et al. \(2023\)](#) that AI that can provide responses that are highly relevant to the questions asked by its users. This finding correlates with [Darwin et al. \(2024\)](#) who argue that AI can play an important role in sociolinguistics by simplifying complex language in academic texts, so that scientific knowledge can be more easily understood by various groups.

The results of this study revealed that peer support has a great influence on self-concept and motivation in learning. Some participants such as F4 highlighted the importance of peer support on the critical thinking process in writing. [Weiste et al. \(2024\)](#) stated that through interaction over time in a group-based intervention peers will explicitly adopt a more lenient mindset. In addition, F8 emphasizes the role of family support is also needed emotionally by providing attention and caring attitudes. The findings of this present study are in line with [Morancho et al. \(2024\)](#) which emphasizes family support as valuable insights into how family environmental factors provide space for learners to shape cognitive abilities and inform strategies to improve critical thinking in diverse learning contexts. Overall, the involvement of support systems is also important for students' mental state, especially when completing their thesis.

The last finding that researchers analyzed was routine guidance. In this case, students need to overcome the obstacles mentioned by student F4 by actively monitoring the thesis and asking questions when they encounter obstacles to the supervisor. In line with the point of view expressed by [Adelina \(2018\)](#) that thesis mentoring is an absolute unity in the thesis process, whether it is a intensive mentoring schedule set by the students themselves or a schedule set by the thesis supervisor. Thus, the intensive guidance with supervisor plays an important role in developing students' critical thinking patterns during the academic writing process.

The findings provide several important implications for key educational stakeholders, including lecturers and EFL practitioners, university administrators and policy makers, and future researchers. For lecturers and EFL practitioners, it is essential to integrate explicit critical thinking instruction into writing classes, such as guided questioning, argument mapping, and source evaluation exercises. Supervisors also need to adopt supportive communication styles to reduce mentorship anxiety, as students' emotional readiness significantly influences their critical engagement. In addition, writing instruction should balance grammar support with analytical skill-building to ensure that linguistic limitations do not hinder the development of higher-order thinking. For university administrators and policy makers, it is important to improve access to digital academic resources and to provide workshops on literature searching and academic reading strategies. Institutional policies may also include guidelines regarding supervisor availability and the quality of supervisory feedback to help reduce student anxiety during guidance. Furthermore, establishing writing centres or peer-review groups can provide structured support systems for students. For future researchers, subsequent studies may explore how AI tools influence students' long-term critical thinking abilities, particularly as AI integration becomes increasingly widespread. Employing larger and more diverse samples across multiple universities would enhance the generalizability of the findings. Moreover, longitudinal research designs could offer deeper insights into how critical thinking skills develop throughout the thesis-writing process.

Despite its contributions, this study has several limitations that must be acknowledged, including those related to participant selection, the scope of the study, the research timeframe and site, and methodological constraints. The study involved only ten students from a single public university in Jambi. Although this sample size is appropriate for qualitative case studies, it limits the generalizability of the findings to broader EFL contexts. In terms of scope, the research focused exclusively on critical thinking in thesis writing, whereas students may face different challenges in other forms of academic writing, such as essays, reports, or reflective papers.

Additionally, the data were collected within a short timeframe and at a single institutional site, which means that students' experiences may vary across different institutions, academic cultures, or supervisory systems. Methodologically, the study relied solely on semi-structured interviews. Although the interviews provided rich and detailed insights, self-reported data can be influenced by memory, emotion, or social desirability. Incorporating additional data sources such as writing samples, classroom observations, or supervisor interviews could have offered stronger triangulation and enhanced the robustness of the findings.

### ***Contributions of the study***

Despite these limitations, this study makes important contributions to the field. It provides empirical evidence of factors and strategies relevant to Indonesian EFL students at the critical juncture of thesis proposal writing—a context underrepresented in existing research. The identification of interconnections among personal, linguistic, and psychological factors offers a more nuanced understanding than studies examining isolated variables. The documentation of

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students' strategic use of AI tools contributes contemporary insights into how learners navigate critical thinking challenges in digitally-mediated academic contexts.

## Conclusion

The findings indicated that EFL students experience a variety of significant inhibiting factors in their development of critical thinking skills in academic writing. These inhibiting factors stem from habitual, emotional, mental challenges, and exposure to an unsupportive academic environment. Three salient themes emerged were personal competence factors (lack of topical knowledge), linguistics factors (lack of grammar and insufficient vocabulary), and psychological factors (low motivation, lack of self-confidence, and anxiety in mentorship). Despite these obstacles, the study revealed that students employed several effective strategies to overcome them. These strategies include self-management, utilization of technological support, fostering a conducive learning atmosphere, relying on support system, and managing guidance schedules efficiently.

Based on the findings of the study, lecturers are expected to provide comprehensive guidance to students. This does not only include the technical aspects of academic writing but also encourages critical discussions during supervision. For EFL students, it is necessary for them to actively expand their knowledge on the topics they are researching. By doing so, it is expected that students will enhance their critical thinking skills and improve the quality of their academic writing. Additionally, future researchers are advised to use a mixed-method approach. By combining these two methods, future researchers can obtain more comprehensive and thorough data, making the research findings more valid and reliable.

## Disclosure statement

No potential conflict of interest was reported by the authors.

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## References

Adelina, R. (2018). BMI correlated to dietary pattern of Indonesian college students lives in Taipei city, Taiwan. *Pakistan Journal of Medical and Health Sciences*, 12(3), 1308–1311.

Adizovna, S. M. (2023). Developing summary writing skill in academic writing. *International Scientific Journal*, 2(9), 140–144.

Ananda, C. R., Mardiah, R., & Fajaryani, N. (2024). Writing Argumentative Essays: Jambi EFL Students' Challenges and Strategies. *Indonesian Journal of English Language Teaching and Applied Linguistics*, 9(2), 339-357.

Arslan, R., Gulveren, H., & Aydin, E. (2014). A Research on Critical Thinking Tendencies and Factors that Affect Critical Thinking of Higher Education Students. *International Journal of Business and Management*, 9(5). <https://doi.org/10.5539/ijbm.v9n5p43>

Barus, G. (2022). *Mengulik tiga faktor pendukung percepatan penulisan skripsi mahasiswa* [Exploring three supporting factors for accelerating students' thesis writing]. *Scholaria: Jurnal Pendidikan dan Kebudayaan*, 12(2), 96–108. <https://doi.org/10.24246/j.js.2022.v12.i2.p96-108>

Braun, V., & Clarke, V. (2019). Thematic analysis revised. *Journal of Chemical Information and Modeling*,

53(9), 1689–1699.

Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4<sup>th</sup> ed.). Sage.

Darwin, Rusdin, D., Mukminati, N., Suryati, N., Laksmi, E. D., & Marzuki. (2024). Critical thinking in the AI era: An exploration of EFL students' perceptions, benefits, and limitations. *Cogent Education*, 11(1). <https://doi.org/10.1080/2331186X.2023.2290342>

Dhuli, R., Lamo, P., & Larsari, V. N. (2023). An Analysis of the Significance of Vocabulary in Fostering ESL/EFL Students' Writing Skills: An Empirical Study. *International Journal of Contemporary Studies in Education (IJ-CSE)*, 2(1), 26–33. <https://doi.org/10.56855/ijcse.v2i1.252>

Emily R. Lai. (2011). Critical Thinking: A Literature Review. *Transfusion*. <https://doi.org/10.1046/j.1537-2995.1995.35395184278.x>

Facione, P. A. (1990). Critical thinking: A statement of expert consensus for purposes of educational assessment and instruction. The California Academic Press.

Forbes, K. (2018). Exploring First Year Undergraduate Students' Conceptualizations of Critical Thinking Skills. *International Journal of Teaching and Learning in Higher Education*, 30(3), 433–442.

Flavell, J. H. (1979). Metacognition and cognitive monitoring: A new area of cognitive-developmental inquiry. *American Psychologist*, 34(10), 906–911. <https://doi.org/10.1037/0003-066X.34.10.906>

Giselsson Kristi. (2020). Critical Thinking and Critical Literacy: Mutually Exclusive? *International Journal for the Scholarship of International Journal for the Scholarship of Teaching and Learning*, 14(1), 1–11.

Husna, N. (2019). Developing students' critical thinking through an integrated extensive reading program. *Teflin Journal*, 30(2), 212–230. <https://doi.org/10.15639/teflinjournal.v30i2/212-230>

İpek, Z. H., Gözüm, A. İ. C., Papadakis, S., & Kallogiannakis, M. (2023). Educational Applications of the ChatGPT AI System: A Systematic Review Research. *Educational Process: International Journal*, 12(3), 26–55. <https://doi.org/10.22521/edupij.2023.123.2>

Islamiyah, M., & Al Fajri, M. S. (2020). Investigating indonesian master's students' perception of critical thinking in academic writing in a british university. *Qualitative Report*, 25(12), 4402–4422. <https://doi.org/10.46743/2160-3715/2020.4058>

Izza, A. Al, & Lailiyah, S. (2024). Literature Review: Factors Affecting Final Year Students' Anxiety in Preparing a Thesis in Indonesia. *Journal of Community Mental Health and Public Policy*, 6(2), 114–125. <https://doi.org/10.51602/cmhp.v6i2.153>

Jamil, M., Bibi, T., & Shahzadi, U. (2024). Critical Thinking Skills Development among Secondary School Students: An Analysis of Chemistry Textbook Grade X (2020). *Research Journal for Societal Issues*, 6(2), 1–11. <https://doi.org/10.56976/rjsi.v6i2.202>

Lincoln, Y.S., & Guba, E. G. (1985). *Naturalistic inquiry*. Sage.

Loo, D. B. (2020). Integrating Critical Thinking in Online Language Tasks: Considerations for an Academic Writing Class. *International Journal of TESOL Studies*, 2, 52–61. <https://doi.org/10.46451/ijts.2020.09.05>

Mäkipää, T. (2024). Upper secondary students' perceptions of feedback literacy in second language learning in Finland – A qualitative case study. *Teaching and Teacher Education*, 143(March). <https://doi.org/10.1016/j.tate.2024.104554>

Malterud, K., Siersma, V. D., & Guassora, A. D. (2016). Sample size in qualitative interview studies: Guided by information power. *Qualitative Health Research*, 26(13), 1753–1760. <https://doi.org/10.1177/1049732315617444>

Marcellino, M. (2008). English language teaching in Indonesia: A continuous challenge in

education and cultural diversity. *TEFLIN Journal*, 19(1), 57–69.

Mayasari, R., & Ramdiah, S. (2023). The effect of problem-based learning (PBL) on different academic abilities on critical thinking of grade XI students on coordination system material. *BIO-INOVED: Jurnal Biologi-Inovasi Pendidikan*, 5(1), 64. <https://doi.org/10.20527/bino.v5i1.15442>

Morancho, M. V., Rodríguez-Mantilla, J. M., & Fernández-Díaz, M. J. (2024). Predictors of critical thinking in spanish university students. *REICE: Revista Iberoamericana sobre Calidad, Eficacia y Cambio en Educación*, 22(3), 23-45.

Muflihun, & Tohamba, C. P. P. (2021). The Challenges That Indonesian Students Faced in Academic Writing: A Cross-Disciplinary Study of Academic Literacies. *Proceedings of the 2nd International Conference on Technology and Educational Science (ICTES 2020)*, 540(Ictes 2020), 12–18. <https://doi.org/10.2991/assehr.k.210407.207>

Nawangsih, N., Fajaryani, N., & Abrar, M. (2024). Navigating Academic Writing: EFL Students Teachers' Challenges and Solutions. *Edukasi: Jurnal Pendidikan dan Pengajaran*, 11(02), 6-22. <https://doi.org/10.19109/6gkfw37>

Neuendorf, K. A. (2019). Content analysis and thematic analysis. In *Advanced Research Methods for Applied Psychology*. <https://doi.org/10.4324/9781315517971-21>

Nur'aini, D. R. (2020). *Penerapan metode studi kasus Yin dalam penelitian arsitektur dan perilaku* [Application of Yin's case study method in architectural and behavioral research]. *INERSLA: Informasi dan Ekspos* Hasil Riset Teknik, 1, 92–104. <https://doi.org/10.1177/0191453710375592>

Ompusunggu, M. M. (2022). *Pengaruh manajemen waktu dan kecenderungan kecemasan terhadap prokrastinasi skripsi pada mahasiswa* [The influence of time management and anxiety tendencies on thesis procrastination among university students]. *Psikoborneo: Jurnal Ilmiah Psikologi*, 10(2), 241–252. <https://doi.org/10.30872/psikoborneo.v10i2.6966>

aton, M. (2005). Is critical analysis foreign to Chinese students? In E. Manalo & G. Wong-Toi (Eds.), *Communication skills in university education: The international dimension* (pp. 1–11). Pearson Education New Zealand.

Pramonojati, S., Carella, D. N., Fitriyah, W. D., & Sari, I. Y. K. (2020). *Students' Critical Thinking in Writing Background of Research*. 434(Iconelt 2019), 304–308. <https://doi.org/10.2991/assehr.k.200427.061>

Purnawan, A., Margana, M., Putro, N. H. P. S., Rasman, R., & Fitrianingsih, I. (2024). Rhetorical Styles of the Theoretical Framework in Thesis Reports of English Language Education Students: Problems and Suggested Actions. *Journal of Languages and Language Teaching*, 12(1), 310. <https://doi.org/10.33394/jollt.v12i1.10376>

Rahmani, S. S., & Waliaratu, S. Z. (2024). Students' Perception of The Influence of Free Writing Habits in Thesis Writing. 7(3), 558–564.

Samanhudi, U., & Linse, C. (2019). Critical Thinking-Related Challenges to Academic Writing: A Case of Indonesian Postgraduate Students at a UK University. *Lingua Cultura*, 13(2), 107. <https://doi.org/10.21512/lc.v13i1.5122>

Shaheen, N. (2012). *International Students at UK Universities: Critical Thinking-Related Challenges to Academic Writing*. 1–258. [http://eprints.hud.ac.uk/id/eprint/17499/1/Nisbah\\_Shaheen\\_-Final\\_Thesis.pdf](http://eprints.hud.ac.uk/id/eprint/17499/1/Nisbah_Shaheen_-Final_Thesis.pdf)

Thabran, Y., Fajaryani, N., & Abrar, M. (2022). Teaching Critical Thinking Skills Using Case-Based Method: A Case Study in Critical Reading and Writing Course. *Ethical Lingua: Journal of Language Teaching and Literature*, 9(1), 14-19. <https://doi.org/10.30605/25409190.363>

Untari, R., Alawiyah, N., Permatasari, L., Sulistiayarini, F., & Quita Melati, S. (2022). *Faktor-faktor penghambat mahasiswa dalam menyusun skripsi* [Factors inhibiting students in writing their

undergraduate thesis]. *Academica: Journal of Multidisciplinary Studies*, 6(2), 189–204. <https://doi.org/10.22515/academica.v6i2.5712>

Vendrell-Morancho, M., Rodríguez-Mantilla, J. M., & Fernández-Díaz, M. J. (2024). Predictors of Critical Thinking in Spanish University Students. *REICE. Revista Iberoamericana Sobre Calidad, Eficacia y Cambio En Educacion*, 22(3), 23–45. <https://doi.org/10.15366/reice2024.22.3.002>

Vygotsky, L. S. (1978). Mind in society: The development of higher psychological processes. Harvard University Press.

Yin, R. K. (2018). Case study research and applications: Design and methods (6th ed.). Sage Publications.

Weiste, E., Stevanovic, M., Uusitalo, L. L., & Toiviainen, H. (2024). Peer support for accepting distressing reality: Expertise and experience-sharing in psychiatric peer-to-peer group discussions. *Health (United Kingdom)*, 28(3), 450–469. <https://doi.org/10.1177/13634593231156822>