Analyzing EFL students' writing challenges and learning strategies in the digital era

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Abstract. Academic writing is one of the most challenging skills for English as a Foreign Language (EFL) students, particularly in higher education where linguistic accuracy, organization, and critical thinking are required. This study aims to analyze the writing challenges faced by English Education students at Universitas Muhammadiyah Semarang (UNIMUS) and identify the strategies they use in a digital learning environment. A descriptive quantitative method was employed, using a closed-ended questionnaire distributed to 25 undergraduate students. The findings indicate that students experience difficulties in three main areas: linguistic (grammar and vocabulary), cognitive (idea organization and revision), and affective (anxiety and lack of confidence). Among these, affective challenges, particularly writing anxiety, emerged as the most significant. The results also reveal that students often face cognitive overload when managing multiple aspects of writing simultaneously. To address these challenges, students increasingly utilize digital tools such as ChatGPT and Grammarly for idea generation and language support. However, these tools present both benefits and risks, as overreliance may hinder independent writing development. This study highlights the need for a holistic instructional approach that integrates strategy training, affective support, and responsible use of technology to enhance students' academic writing skills.

Keywords: EFL Writing Challenges; Academic Writing; Digital Learning Environment; Writing Strategies; Technology Assisted Writing

1 Introduction

In the landscape of English as a Foreign Language (EFL) education, writing is universally acknowledged as a cornerstone of academic success and a critical skill for effective communication. It is a complex mental process that involves not only the mechanical application of grammar and vocabulary but also the sophisticated abilities of organizing ideas, critical thinking, and metacognition (Bulqiyah et al., 2021; Kormos, 2023). For tertiary students, in particular, the ability to produce competent academic writing is paramount, as it directly influences their performance across disciplines and their preparedness for future

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professional endeavors. Despite its significance, mastering writing remains one of the most formidable challenges faced by EFL learners, a difficulty further compounded by evolving educational landscapes and technological advancements.

The inherent complexities of writing are well documented. Students often encounter a multitude of obstacles that can be categorized into three primary domains: affective, cognitive, and linguistic (Deane et al., 2008). As highlighted by (Bulqiyah et al., 2021), learners frequently struggle with a lack of self-confidence, motivation, and high anxiety when faced with writing tasks. Recent studies confirm that writing anxiety remains a significant predictor of students' writing performance, and self-regulated learning strategies serve as a crucial mediator in reducing anxiety and improving writing outcomes (Zhang & Dong, 2022). Cognitively, challenges arise in generating and organizing ideas, understanding the writing process, and transferring thoughts from their first language to English (Muthmainnah et al., 2026). Linguistically, persistent difficulties with grammar, vocabulary, and the overall structure of essays continue to hinder the production of coherent and accurate text. These challenges indicate that writing is not merely a linguistic exercise but a holistic endeavor intertwined with students' emotional and cognitive states (Xodabande et al., 2022).

Recent studies have emphasized that EFL students' writing challenges are increasingly influenced by the integration of digital technologies in educational contexts. While digital tools such as Grammarly, ChatGPT, and online collaborative platforms can facilitate idea generation, grammar correction, and revision, students still encounter difficulties in developing independent writing skills and critical thinking abilities (Al Darayseh, 2023; Hidayatullah, 2024). Furthermore, research has shown that successful academic writing requires the integration of linguistic competence, self-regulation, metacognitive awareness, and emotional resilience (Kormos, 2023; Zhang & Dong, 2022). Therefore, investigating students' writing challenges and learning strategies in the digital era remains essential to provide effective pedagogical support and technology assisted learning practices.

This research is particularly important given that Indonesian students still demonstrate fundamental weaknesses in academic writing. Many of them have difficulty constructing logical and well-structured arguments (Anindita, 2024). The ability to develop main ideas into coherent paragraphs is also often a challenge. In addition, their command of academic vocabulary and correct grammar is still very limited. Difficulties in constructing complex and formal sentences further exacerbate the quality of their writing. Not infrequently, students also fail to understand the differences in writing conventions for various types of academic texts. As a result, their writing often does not meet the standards expected in a college environment. Therefore, identifying these specific problems is a crucial step in designing appropriate solutions.

The educational context itself has undergone significant transformation, especially with the recent global shift towards online and blended learning. As (Lestariningsih et al., 2022)note, lecturers were tasked with creating engaging, flexible, and understandable online learning experiences to ensure students could still practice and apply their writing abilities. This shift underscored the vital role of the lecturer in fostering student engagement and maintaining academic integrity in a remote setting. In response to these changes, technological tools have been increasingly integrated into writing pedagogy. Platforms like Padlet have shown promise, with studies indicating they can make writing assessment more interesting and easier for teachers, while also increasing student motivation and enjoyment (Jong & Kim Hua, 2021). Additionally, digital tools such as Grammarly and online collaborative platforms have been reported to enhance students' writing accuracy and engagement (Al Darayseh, 2023; Dizon & Tang, 2020)

However, the integration of technology brings its own set of challenges and ethical considerations. The emergence of powerful Artificial Intelligence (AI) tools like ChatGPT presents a double-edged sword. While it can be a valuable tool for brainstorming and

improving language, it also raises serious concerns about plagiarism and the erosion of students' authentic writing development (Hidayatullah, 2024). Digital writing strategies, including the use of AI-powered tools and online collaborative platforms, have been shown to significantly influence EFL learners' writing processes and outcomes (Tajik, 2025).This creates a critical dilemma for educators: how to leverage technology to support writing skills without undermining the learning process and academic integrity. In this complex ecosystem, the role of effective feedback becomes more crucial than ever. As (Wulandari, 2022) emphasizes, feedback is among the most powerful influences on achievement, helping students identify their strengths and weaknesses. Therefore, understanding the interplay between student difficulties, evolving teaching methodologies, and technological tools is essential for designing effective writing instruction that can truly empower EFL learners in the 21st century (Wasawas Villaflor & Sarte Deiparine, 2026).

This study aims to answer the following research questions:

1. What writing challenges are experienced by EFL students in the digital era?
2. What learning strategies do students use to overcome those writing challenges?

2 Method

2.1 Design

This study employed a descriptive quantitative research design. The primary objective of this approach was to systematically gather numerical data to accurately describe the characteristics, perceptions, and specific difficulties encountered by English Education students in the domain of academic writing. A quantitative methodology was deemed most appropriate as it allows for the efficient collection of data from a sizable sample, facilitating the identification of prevalent trends and patterns. This design enables the researcher to present a statistical snapshot of the current situation regarding writing challenges, providing a solid foundation for understanding the scope and nature of the problems faced by the participants. Furthermore, this design is particularly effective for measuring the frequency and intensity of students' self-reported challenges across different domains, allowing for a clear, data-driven prioritization of the issues that require immediate pedagogical attention.

2.2 Participant/Population and Sample

The research was conducted at Universitas Muhammadiyah Semarang (UNIMUS), specifically within the English Education Department. The participants comprised a cohort of undergraduate students who were actively enrolled in intermediate or advanced writing courses, ensuring they possessed substantial and relevant experience with the subject matter. A purposive sampling technique was utilized to select the respondents. This non-random sampling method was chosen to deliberately target individuals whose academic journey directly involves the skills being investigated, thereby enhancing the relevance and specificity of the collected data. The final sample consisted of 25 students, providing a focused and informative perspective from the target population.

2.3 Instrument/Data Collection

The sole instrument for data collection was a meticulously designed, closed-ended questionnaire administered digitally via the Google Forms platform. The questionnaire was structured into two main sections. The first section gathered essential demographic

information from the respondents. The second and core section contained ten statements specifically crafted to probe students' writing difficulties across three critical dimensions derived from the literature: linguistic problems (e.g., grammar, vocabulary), cognitive problems (e.g., idea organization, planning), and affective problems (e.g., anxiety, motivation). To ensure clear and measurable responses and to prevent neutral answers, a 4-point Likert scale was employed for these statements, requiring participants to indicate their level of agreement from 1 (Strongly Disagree) to 4 (Strongly Agree). The data collection process was carried out during the third semester of the 2024/2025 academic year, with participants granted a one-week window to complete the questionnaire after providing informed consent.

2.4 Data Analysis

The data collected from the Google Forms questionnaire were automatically compiled into a Microsoft Excel spreadsheet. The analysis began with a process of data cleaning and verification to ensure accuracy and completeness. All 25 responses received were found to be fully completed and valid for analysis, confirming the final sample size (N=25). Subsequently, the data were analyzed using descriptive statistics. This involved calculating the mean and percentage for each of the ten questionnaire items. The mean score for each item was computed to determine the central tendency of students' responses, indicating the average level of agreement or perceived difficulty for each specific challenge. A higher mean score (closer to 4.0) signifies a stronger agreement that the item represents a significant challenge for the students.

These statistical values were then organized into a table to facilitate a clear comparison of the challenges across the three primary domains: linguistic, cognitive, and affective. The calculated means and percentages provide a numerical foundation for identifying which challenges are most prevalent among the EFL students at UNIMUS, thereby addressing the primary research objective of describing their writing difficulties in the digital era.

3 Results and Discussion

3.1 Result

The descriptive analysis of the questionnaire data revealed varying levels of difficulty across the ten items related to academic writing challenges. The following table presents the mean scores for each statement, providing a quantitative overview of the students' perceptions.

Table 1. Table Interpretation

MEAN RANGE	INTERPRETATION
1.00 – 1.75	Strongly Disagree (Very Low Challenge)
1.76 – 2.50	Disagree (Low Challenge)
2.51 – 3.25	Agree (Moderate Challenge)
3.26 – 4.00	Strongly Agree (High Challenge)

Based on the interpretation scale above, mean scores above 3.26 indicate that students perceive the issue as a highly significant challenge, whereas scores between 2.51 and 3.25 indicate a moderate level of challenge.

As shown in Table 1, the overall mean score of 3.20 indicates that students generally agree that they face considerable challenges in academic writing. Based on the data presented in Table 2, the highest mean score was recorded for item 4 ("I have difficulty finding and

using appropriate academic vocabulary for my writing assignments") with a mean score of 3.94. This finding suggests that academic vocabulary is the most significant challenge faced by the students. The second highest score was found in item 3 ("I feel anxious or lack confidence when I have to write an academic essay in English") with a mean score of 3.35, indicating that affective factors also play an important role in students' writing difficulties.

Table 2. Mean score of student writing challenges

NO.	CHALLENGE STATEMENT	MEAN SCORE
1.	I often struggle with using correct grammar (e.g., tenses, prepositions) in my essays.	3.29
2.	I find it difficult to organize my ideas into a well-structured paragraph or essay.	3.24
3.	I feel anxious or lack confidence when I have to write an academic essay in English.	3.35
4.	I have difficulty finding and using appropriate academic vocabulary for my writing assignments.	3.94
5.	I often feel unmotivated and find it hard to get started or complete my English writing assignments.	3.24
6.	I find the steps of planning and preparing an outline before starting to write my essay quite challenging to do.	3.12
7.	I often worry about making errors in my writing that might be noticed and judged by my lecturers or peers.	3.29
8.	I find it difficult to review and improve my own writing through multiple drafts and editing processes.	3.18
9.	I have trouble using connecting words and phrases effectively to make smooth transitions between sentences and paragraphs.	3.06
10.	I find it challenging to manage all aspects of writing from developing ideas and arguments to maintaining proper format and ensuring everything flows together smoothly.	3.24
OVERALL MEAN SCORE		**3.20**

3.2 Discussion

The findings of this study provide a clear snapshot of the multifaceted writing challenges experienced by EFL students at UNIMUS, corroborating and extending the existing literature. The results affirm that writing difficulties are not confined to a single area but are a complex interplay of affective, linguistic, and cognitive factors, as initially posited by Bulqiyah et al. (2021) and further supported by recent studies Kormos (2023). The emergence of affective challenges, particularly writing anxiety and lack of confidence (item 3, M=3.35), as the most prominent difficulty is a significant finding. This suggests that before students even put pen to paper, or finger to keyboard, they are grappling with emotional barriers that can impede their cognitive processing and willingness to engage with the task. The high score for item 7 (worry about being judged, M=3.29) reinforces this, indicating that fear of negative evaluation from lecturers and peers is a powerful source of stress. This aligns with the affective domain described in the introduction and highlights that writing instruction must address not only skill development but also the cultivation of a supportive and low anxiety classroom environment.

Linguistic challenges remain a cornerstone of students' difficulties. The high mean for grammar (item 1, M=3.29) confirms that mastering English syntax and morphology is a persistent hurdle. Interestingly the highest score for vocabulary (item 4, M=3.94) indicates that students still experience substantial difficulties in finding and using appropriate

academic vocabulary in their writing. This resonates with the introduction's discussion on technology's dual role; while tools like ChatGPT and Grammarly can offer immediate vocabulary suggestions and grammar correction (Al Darayseh, 2023; Mulenga & Shilongo, 2024), the data implies that grammar remains a deeper, more challenging structural issue that technology alone cannot easily fix without conscious learning.

Cognitive challenges related to organization and the writing process were consistently rated as difficult. Items on organizing ideas (item 2, M=3.24), planning outlines (item 6, M=3.12), and revising through multiple drafts (item 8, M=3.18) all scored above 3.0. This supports the notion that writing is a complex cognitive endeavor. The high score for item 10 (managing all aspects of writing, M=3.24) is particularly telling. It points to a phenomenon of cognitive overload, where students feel overwhelmed by the demand to simultaneously manage idea generation, linguistic accuracy, and organizational structure. This is precisely where technology, such as AI brainstorming tools, can be beneficial in offloading some cognitive burden during the initial stages, as noted by Hidayatullah (2024). However, it also presents the risk of students becoming overly reliant on these tools, potentially bypassing the crucial cognitive work of developing their own ideas and arguments (George et al., 2024).

The findings collectively suggest that the digital environment is a double-edged sword. On one hand, it provides resources that can alleviate some difficulties (e.g., grammar checkers for linguistic accuracy, AI for idea generation). On the other hand, the anxiety about judgment and the cognitive challenge of synthesis remain deeply personal and human aspects of writing that technology cannot resolve (Wasawas Villaflor & Sarte Deiparine, 2026). Therefore, as (Lestariningsih et al., 2022)implied, the role of the lecturer evolves in this digital era not just to deliver content, but to guide students in using technology critically and strategically, to provide the human feedback that fosters confidence (Wulandari, 2022), and to design instruction that builds students' cognitive and affective resilience alongside their linguistic skills.

The findings also reveal that students employ different learning strategies to overcome specific writing challenges. To address linguistic challenges, particularly difficulties in grammar and academic vocabulary, students frequently use digital tools such as Grammarly, online dictionaries, and ChatGPT. These tools provide immediate feedback and language support, helping students improve accuracy and expand their vocabulary knowledge. For cognitive challenges, including idea organization, outlining, and revising drafts, students often utilize brainstorming activities, mind mapping techniques, and AI-assisted idea generation. Based on the literature and the context of digital writing practices, students may employ several strategies such as Grammarly, ChatGPT, brainstorming, and peer feedback to address their writing challenges. These strategies help reduce cognitive overload and support students in managing the writing process more effectively.

Regarding affective challenges, such as writing anxiety and lack of confidence, students benefit from peer collaboration, lecturer feedback, and continuous writing practice. Constructive feedback enables students to identify weaknesses and improve their writing, while collaborative learning activities help reduce fear of negative evaluation. Therefore, integrating linguistic support, cognitive strategy training, and affective assistance is essential for improving EFL students' writing performance in digital learning environments.

4 Conclusion

This study investigated the writing challenges and learning strategies of EFL students at Universitas Muhammadiyah Semarang in the digital era. The findings reveal that students experience challenges in three major areas: linguistic, cognitive, and affective domains. The

most significant challenges are academic vocabulary, writing anxiety, grammar accuracy, and managing multiple writing processes simultaneously.

To address these challenges, students employ various learning strategies, including the use of digital writing tools such as Grammarly and ChatGPT, outlining techniques, brainstorming activities, peer collaboration, and lecturer feedback. These strategies assist students in improving language accuracy, organizing ideas, and increasing writing confidence. Therefore, writing instruction should incorporate strategy training, affective support, and responsible technology use to enhance students' academic writing performance in digital learning environments.

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