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# Exploring Bangladeshi university students' challenges in academic writing in an AI-supported learning environment

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# Exploring Bangladeshi University Students' Challenges in Academic Writing in an AI-Supported Learning Environment

By

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A thesis submitted to the Department of English and Modern Languages in partial fulfilment of the requirements for the degree of Bachelor of Arts

Department of English and Modern Languages

Independent University, Bangladesh

May, 2026

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# Declaration

It is hereby declared that

1. The thesis submitted is my own original work while completing degree at Independent University, Bangladesh.
2. The thesis does not contain material previously published or written by a third party, except where this is appropriately cited through full and accurate referencing.
3. The thesis does not contain material which has been accepted, or submitted, for any other degree or diploma at a university or other institution.
4. I have acknowledged all main sources of help.

**Student's Full Name & Signature**

(Signature)

_____

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# Approval

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## Ethics Statement

This study was conducted with respect for all participants. They were informed about the research, gave their consent to participate, and were free to withdraw at any time. Their privacy was protected, and their identities remained confidential throughout the study

# Abstract

This study looks at the challenges Bangladeshi university students face when writing academic texts in an AI-supported learning environment. Many students find academic writing difficult due to problems with grammar, vocabulary, organization, critical thinking, and referencing. Today, AI tools are becoming increasingly popular, and students use them to get quick feedback and suggestions on their writing. However, not all students know how to use these tools properly or ethically. The study explores students' real experiences, opinions, and difficulties while using AI for academic paragraph writing. The study follows a quantitative research approach and collects data through a survey questionnaire administered to 60 university student participants. The survey gathers students' responses regarding their experiences, challenges, and opinions about the use of AI tools in academic writing. This method enables the researcher to identify common patterns and trends in the participants' responses. The results show how AI helps these students improve their academic writing and highlight the challenges that still remain. This research will help teachers and universities understand how to use AI tools more effectively in academic writing classes in Bangladesh.



**Keywords:** Academic writing; AI tools; AI-supported learning environment; university students; writing challenges; student perceptions

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# CHAPTER 1
# INTRODUCTION

## 1.1 Background of the Study

Academic writing is central to success in higher education because it requires students to communicate ideas in a structured way, develop arguments with evidence, and demonstrate analytical ability (Hyland, 2019). In the Bangladeshi university context, however, many learners still experience persistent difficulties in English academic writing. Earlier research has identified recurring problems, including limited vocabulary, grammatical inaccuracies, weak organisation, poor coherence, and inadequate paraphrasing or referencing practices (Rahman et al., 2024; Al Younus, 2024; Msanjila, 2005). These difficulties suggest that academic writing remains a demanding area for many ESL/EFL learners in Bangladesh. At the same time, AI-based tools have become increasingly visible in academic learning environments. Applications such as ChatGPT, Grammarly, and similar writing assistants can provide immediate support with language accuracy, idea development, and revision. Studies in Bangladesh and related EFL settings indicate that such tools may help learners improve grammar, vocabulary use, and overall writing performance when they are used actively and reflectively (Alam, 2025; Huda & Khanum, 2025; Sultana & Faruk, 2024). However, the literature also notes important concerns, including overdependence, reduced originality, ethical misuse, and unequal access to technology (Alam, 2025; Sultana & Faruk, 2024). Because of this dual role, AI should not be viewed only as a source of assistance, but also as a factor that reshapes the writing process itself. Existing studies have discussed either students' writing problems in general or broad perceptions of AI adoption. Far less attention has been given to the specific difficulty's students continue to face while writing in AI-supported settings, especially in Bangladesh. For that reason, further investigation is needed into how university students experience academic writing challenges when AI tools are part of their learning environment.

## 1.2 Problem Statement

Although academic writing is a core requirement at the university level, many Bangladeshi students still struggle to produce effective English academic texts. Their difficulties often include inaccurate grammar, restricted vocabulary, weak paragraph development, poor coherence, and limited ability to organize and support arguments. These issues become more serious in ESL/EFL contexts, where students are expected to think critically and express complex ideas in a second language. Research on Bangladeshi learners has repeatedly shown that writing challenges remain widespread at the tertiary level (Rahman et al., 2024; Al Younus, 2024). Meanwhile, AI writing tools are now being used by many students for drafting, revising, language correction, and idea generation. Although these technologies may offer useful support, they do not automatically solve deeper writing problems. Learners may accept AI suggestions without sufficient evaluation, rely too heavily on tools, or submit text they have not meaningfully developed themselves. As a result, questions remain about originality, ethical use, and whether students are actually strengthening their own academic writing ability. The problem, therefore, is not simply that students face difficulty in academic writing, nor is it only that AI tools are available. The real issue is that there is still a limited understanding of how Bangladeshi university students experience writing challenges when AI is Incorporated into the writing process. This gap justifies a focused study on students' difficulties, their use of AI tools, and the implications of AI-supported writing for academic learning in Bangladesh.

## 1.3 Objectives of the Study

The objectives of this study are to identify the main challenges Bangladeshi university students face in academic writing and to explore how they use AI tools during the writing process. It also aims to examine students' perceptions of AI-supported learning environments and to understand the difficulties they encounter when using AI-generated feedback. Together, these objectives provide a comprehensive view of the role of AI in academic writing.

## 1.4 Research Questions

- What challenges do Bangladeshi university students face in academic writing in an AI-supported learning environment?
- How do Bangladeshi university students use AI tools during academic writing?
- What are Bangladeshi university students' perceptions of AI-supported learning environments for academic writing?

## 1.5 Significance of the study

This study is important because it fills a gap in current research. Most existing studies focus on grammar correction, automated scoring, or students' general opinions about AI. Some research shows that AI tools can improve grammar, vocabulary, and accuracy (Alam, 2025; Huda & Khanum, 2025; Sultana & Faruk, 2024). However, very little attention has been given to how students actually write with AI. This includes how they organize ideas, develop paragraphs, and revise drafts. This study goes beyond measuring AI's effectiveness. Instead, it looks at how AI supports the writing process and how students make their own decisions when using these tools. Another important contribution of this study is its focus on student–AI interaction. Previous research often treats AI as a helpful tool; however, it does not explore in depth how students interpret AI feedback or decide to accept or reject suggestions. It also does not examine how students handle difficulties when working with AI-generated responses. This study will examine these interactions closely. It will show how learners engage with AI during planning, drafting, and revising, reflecting the recursive stages of the writing process described in Process Writing Theory (Flower & Hayes, 1981, 2004). This detailed analysis makes the study original and valuable. This study also looks at cognitive and emotional challenges in AI-assisted writing. AI may reduce language-related problems. However, it can also cause confusion, cognitive overload, and uncertainty. This happens when students receive too many suggestions

at once. Emotionally, students may feel less confident when using AI. They may also become too dependent on it or feel frustrated. This study addresses linguistic, rhetorical, cognitive, and ethical challenges together. This provides a broader understanding of the difficulty's students face in AI-supported writing environments. The context of this study is also significant. Most research on AI-supported writing comes from developed countries such as the US, China, South Korea, and Europe. Very little research has been done in Bangladesh or other South Asian ESL/EFL contexts. This study adds a Global South perspective. It examines how Bangladeshi students experience AI-supported writing. It will show how AI works in resource-limited settings and English-medium universities. This adds both contextual relevance and practical value to the research. This study also focuses on specific AI tools. These include generative AI tools like ChatGPT and automated feedback systems like Grammarly. Different tools provide different kinds of support. Some help with idea generation, others with grammar correction, and others with feedback suggestions. This study will clarify how students use these tools and what challenges they face with each one. Finally, this study has important implications for teaching and policy. The findings can help teachers design structured AI support for writing instruction. They can also guide students in using AI effectively without becoming too dependent on it. The study promotes AI literacy and encourages students to think critically about AI feedback. At the institutional level, the findings can inform ethical AI guidelines, teacher training programs, and curriculum frameworks for AI-supported writing in universities.

### 1.6 Limitations of the Study

This study has several limitations that should be acknowledged. First, it focuses on a relatively small group of Bangladeshi university students, so the findings may not be fully generalizable to students from other institutions, academic disciplines, or national contexts. Second, the study concentrates mainly on generative AI tools such as ChatGPT and automated feedback tools such as Grammarly; therefore, other AI platforms and their possible effects are not examined. A further limitation is that some of the data are based on students' self-reported perceptions and experiences, which may be influenced by personal attitudes, memory, or bias. In addition, the study investigates writing within a limited academic timeframe, so it does not fully capture the effects of long-term AI use in real-world writing situations. Finally, although the study discusses technological access and ethical awareness, it does not examine in detail how differences in digital literacy or institutional support may shape students' use of AI tools.

## 1.7 Scope of the Study

This study focuses on the academic writing challenges experienced by Bangladeshi university students in AI-supported learning environments. It examines several stages of the writing process, including idea generation, paragraph development, organization, coherence, and revision. The research also investigates how students use AI-based tools, particularly generative systems and automated feedback applications, to support these stages of writing. In addition, the study explores how students interact with AI suggestions and feedback while composing academic texts. It considers a range of possible difficulties, including linguistic, rhetorical, cognitive, emotional, and ethical challenges. The participants are undergraduate students studying at English-medium universities in Bangladesh. Rather than simply measuring whether AI is useful, the study emphasizes how students' own choices, strategies, and engagement shape the writing process in AI-assisted settings.

## 1.8 Organization of the Thesis

This thesis is organized into five chapters. Chapter 1 introduces the study and presents the background, problem statement, objectives, research questions, significance, limitations, scope, and overall structure of the thesis. Chapter 2 reviews the relevant literature, outlines the theoretical framework, discusses major debates in the field, evaluates the effectiveness of AI in writing support, synthesizes previous research, and identifies the research gap. Chapter 3 explains the methodology of the study, including the participants, research design, research instrument, data collection procedures, data analysis methods, and ethical considerations. Chapter 4 presents the findings and analysis, covering students' demographic information, their use of AI tools in academic writing, perceived benefits, challenges, text modification practices, independent writing development, feedback effectiveness, and the writing aspects they find most difficult. Finally, Chapter 5 summarizes the study, highlights the major findings, discusses implications, provides recommendations, suggests areas for future research, and concludes the thesis.

# CHAPTER 2
# LITERATURE REVIEW

## 2.1 Introduction

Academic writing is an essential skill for university students. It helps them express ideas, build arguments, and show critical thinking (Hyland, 2003; Weigle, 2002). However, many Bangladeshi undergraduate students struggle with academic writing. Research shows that these students face many difficulties. Some problems are language-related. These include limited vocabulary, grammar mistakes, and weak sentence construction. Other problems are cognitive. These include poor organization, weak idea development, and limited critical thinking (Rahman et al., 2024; Al Younus, 2024). These findings show that writing difficulties are not only about language. They are also about higher-level thinking and organization. In recent years, artificial intelligence tools like ChatGPT have changed how students write. Some studies suggest that AI can help students with grammar correction, idea generation, and organization. This support can improve students' overall writing quality Khan, M. S., & Habib, R. B. (n.d.). However, other research warns that the use of AI may reduce originality. It may also encourage over-reliance on technology and lower students' confidence in their own abilities (Alam, 2025). These mixed findings show that AI plays a double role. It can support writing, but it can also create new challenges for students. Despite growing interest in AI in education, academic writing in AI-supported environments is still underexplored. Very little research has examined the specific writing challenges students face when using AI tools. Understanding these challenges is important. It shows how language and thinking processes interact with AI support. For this reason, this study investigates the academic writing difficulties faced by Bangladeshi university students in AI-supported learning contexts.

## 2.2 Theoretical Framework

This study looks at the challenges Bangladeshi university students face in academic writing when using AI tools. To explain these challenges, the study uses four theories. These are Process Writing Theory, Cognitive Load Theory, and Academic Literacy Theory, and the Technology Acceptance Model (TAM) Together, these theories show that academic writing is a complex process. It is recursive, socially supported, mentally demanding, and guided by academic rules. In AI-supported environments, AI tools serve as support during this process. **Process Writing Theory**: Process Writing Theory sees writing as a step-by-step process. These steps include planning, drafting, revising, and editing (Flower & Hayes, 1981; Hyland, 2003). Traditionally, teachers give feedback during the revision stage. However, in AI-supported environments, tools like ChatGPT can help at many stages. They can assist with generating ideas, writing sentences, and giving grammar or organizational feedback. Research shows that engaged students use AI to revise their work repeatedly. Less engaged students, however, use AI in a shallow way without real learning (Khan & Habib, 2025; Alam, 2025). This shows that AI has both benefits and risks. It can support writing, but it can also create dependence and reduce originality. **Cognitive Load Theory**: Writing is a mentally demanding activity. Students must generate ideas, organize arguments, and maintain accuracy at the same time (Sweller, 1988). AI can affect three types of mental effort during writing. The first is intrinsic load. This refers to the natural difficulty of writing itself. It is often increased by challenges with vocabulary and organization (Rahman et al., 2024). The second is extraneous load. This refers to extra mental effort caused by unclear AI prompts or confusing AI responses (Huda & Khanum, 2025). The third is germane load. This refers to productive mental effort that supports learning. It increases when students actively revise their writing with AI support (Khan & Habib, 2025). Therefore, AI can both reduce and increase the mental effort required for writing. It depends on how students use it. **Academic Literacy Theory**: Academic Literacy Theory says that academic writing follows specific rules and conventions set by different academic disciplines (Lea & Street, 1998; Hyland, 2003). Students should learn how to argue, use an academic tone, and present knowledge effectively. However, AI-generated responses often follow dominant Anglo-academic writing norms. This can challenge students' own voice, identity, and originality. Studies show that heavy reliance on AI reduces students' confidence and their sense of ownership over their ideas (Alam, 2025; Khan & Habib, 2025). **Technology Acceptance Model (TAM):** The Technology Acceptance Model explains how users' perceptions influence their adoption and use of technology. According to TAM, students are

more likely to use AI tools when they perceive them as useful and easy to use. In academic writing contexts, students may adopt AI because they believe it improves writing quality, saves time, or simplifies difficult tasks. However, perceptions of usefulness and ease of use may also lead to overdependence if students trust AI output without critical evaluation. TAM helps explain why students choose to integrate AI into their writing process and how their attitudes toward AI shape usage patterns in academic writing environments. **Theoretical Synthesis**: Together, these four theories explain academic writing in AI-supported environments as a complex process. Process Writing Theory shows how AI can intervene at different stages of writing. Cognitive Load Theory explains how AI affects students' mental effort during writing. Academic Literacy Theory shows how AI shapes students' voice, identity, and authenticity. The Technology Acceptance Model (TAM) explains how users decide to adopt and use technology based on how useful and easy they perceive it to be. Overall, AI is a powerful yet controversial tool. It reshapes how students write, but its effects depend on how actively and critically students engage with it.

## 2.3 Key Debates and Scholarly Positions

### Nature of Students' Writing Challenges: Linguistic vs Cognitive

One of the main debates in academic writing research is whether students' difficulties are mostly linguistic or cognitive. Linguistic problems include limited vocabulary, grammar mistakes, and weak sentence structure (Rahman et al., 2024; Al Younus, 2024; Khan & Habib, 2025). Cognitive problems involve organizing ideas, maintaining coherence, using critical thinking, and revising effectively (Flower & Hayes, 1981; Msanjila, 2005; Khan & Habib, 2025). Some researchers argue that language skills are the foundation without grammar and vocabulary, students cannot express ideas clearly. Others believe that cognitive skills, such as planning and idea development, are more important for strong writing. In reality, these two perspectives overlap. For example, Rahman et al. (2024) show that limited vocabulary makes it harder for students to organize and revise arguments. Similarly, Khan and Habib (2025) found that AI feedback helps students correct language errors, but only those who actively engage with it improve cognitively through revision and reflection. Position of this study: Writing difficulties are seen as both linguistic and cognitive, shaped by how students interact with AI tools. AI may ease some language problems, but students still need to think critically, organize ideas, and evaluate AI generated content. Understanding writing challenges therefore requires examine the connection among language skills, cognitive strategies, and AI support.

### 2.4 Effectiveness of AI in Writing Support

Another key debate in academic writing research concerns the role of AI. Early studies mainly viewed AI as automated feedback systems that corrected grammar and vocabulary (Huda & Khanum, 2025). More recent work focuses on generative AI tools like ChatGPT, which can draft paragraphs, suggest ideas, and model academic writing styles (Khan & Habib, 2025; Alam, 2025). Supporters highlight benefits such as efficiency, accessibility, and increased learner engagement. For example, Sultana and Faruk (2024) found that adaptive AI learning environments promote personalized learning and educational sustainability. Similarly, Khan and Habib (2025) showed that students who actively engaged with ChatGPT used it for iterative revision, demonstrating how generative AI can scaffold cognitive processes. On the other hand, critics warn that AI may encourage over-reliance, reduce originality, and weaken independent writing skills (Alam, 2025; Huda & Khanum, 2025). Some students adopt superficial strategies, copying AI-generated text without reflection, which limits deeper learning and authentic skill development. These critiques suggest that AI's effectiveness depends on how learners engage with it, the quality of scaffolding, and whether students critically process AI output. Position of this study: This research situates itself within the generative AI debate by examining how Bangladeshi undergraduates interact with ChatGPT during writing. It treats AI not as a neutral tool but as a mediational agent whose impact depends on students' cognitive engagement, motivation, and understanding of academic conventions.

### 2.5 Critical Synthesis of Existing Research

Research shows that Bangladeshi undergraduate students face many challenges in academic writing. These challenges are linguistic, cognitive, and technology-related. Linguistic problems include limited vocabulary, grammar mistakes, and sentence-level errors (Rahman et al., 2024; Al Younus, 2024). Cognitive problems include poor organization, weak critical thinking, and ineffective revision strategies (Flower & Hayes, 1981; Msanjila, 2005; Khan & Habib, 2025). Earlier studies often treated these problems as separate issues. However, newer research shows that they are closely connected. For example, limited vocabulary can make it harder for students to organize and revise their ideas effectively (Khan & Habib, 2025). The rise of AI tools has created both new opportunities and new challenges for students. Generative AI tools like ChatGPT provide instant feedback, writing support, and models of academic writing (Khan & Habib, 2025; Alam, 2025; Sultana & Faruk, 2024). Some studies show that AI helps reduce language errors and improves organization. However, other researchers warn that over-reliance

on AI can weaken originality, student agency, and critical thinking (Alam, 2025; Huda & Khanum, 2025). AI may also reinforce dominant Anglo-academic writing norms. This raises important questions about authenticity and student identity in writing (Lea & Street, 1998; Hyland, 2003). Research also shows that AI's impact depends on students' engagement and motivation. Students who actively use AI for revision and reflection gain both linguistic and cognitive benefits. Students who rely on AI superficially, however, see very little improvement (Khan & Habib, 2025). This reveals an important gap in existing research. Many studies assume that AI benefits all students equally. They do not consider individual differences in motivation, cognitive effort, or technology acceptance. There are also contradictions in the research findings. Some studies argue that AI improves the technical aspects of writing but reduces originality and student confidence (Alam, 2025; Huda & Khanum, 2025). Other studies show that when students engage critically with AI feedback, it can improve both writing accuracy and higher-order thinking skills (Khan & Habib, 2025). These contradictions suggest that AI's impact is not fixed. It depends on how students use AI and how it is integrated into their learning environment. Position of this Study: This study builds on these insights. It does not treat AI as a neutral tool. Instead, it treats AI as a mediational agent. This means that AI's effectiveness depends on students' engagement, cognitive effort, and interaction with academic norms. The study focuses specifically on Bangladeshi undergraduate students. By doing so, it addresses an important gap in the research. It explores how AI-supported environments shape both the linguistic and cognitive dimensions of writing. It also considers the technology-related factors that influence students' writing experiences.

## 2.6 Research Gap

Research on academic writing in ESL contexts is growing. However, most studies still focus on surface-level problems. These include grammar mistakes, limited vocabulary, and sentence errors. These studies often ignore the deeper thinking and strategic processes involved in writing. These deeper processes include developing ideas, structuring arguments, and revising paragraphs. Research shows that how students engage with AI feedback strongly affects their ability to revise and reflect on their writing. However, very little is known about how students interact with AI suggestions at the paragraph level. This is an important gap in current research. Most studies also have methodological limitations. They rely on surveys, error counts, or broad interviews. These methods only give a partial view of the writing process. They do not fully capture the dynamic and recursive nature of writing. Very few studies combine student perspectives, performance data, and engagement measures together. As a result, researchers do not fully understand how language skills, cognitive strategies, and motivation interact during AI-supported writing. This leaves gaps in understanding how AI works as a support tool during writing. There are also contextual gaps in the research. Most studies come from well-resourced settings in the Global North. Very little research has been done in Global South contexts. Bangladesh is one such context. Students there face unique challenges. These include issues with originality, limited resources, and challenges related to the use of AI tools in writing. These challenges remain largely unexplored. There are theoretical gaps as well. Many studies use only a single theoretical framework. They do not combine cognitive, technology acceptance, and academic literacy perspectives together. As a result, researchers lack a complete understanding of how AI reshapes traditional models of literacy, cognitive load, and scaffolding. This is especially true at the paragraph level and in relation to student agency. Overall, interest in AI-supported writing is growing. However, very little is still known about how ESL university students experience paragraph-level challenges when working with AI feedback. This gap is especially significant in contexts with different academic literacy norms and limited language resources. Addressing these conceptual, methodological, contextual, and theoretical gaps is therefore very important. It will help researchers better understand how language skills, cognitive effort, and learner engagement interact in AI-supported writing environments.

# CHAPTER 3
# METHODOLOGY

## 3.1 Introduction

This chapter explains the research design, participants, data collection methods, and data analysis procedures used in the study.

## 3.2 Participants

The participants of this study are undergraduate students from Bangladeshi universities. Students from different years of study (1st year to final year) are included to obtain diverse responses. Participants are selected using convenience sampling, as the questionnaire is distributed online through Google Forms. 60 students are expected to take part in the study. Participation is voluntary, and all responses will be kept anonymous.

## 3.3 Research Design

This study uses a quantitative survey research design. The goal is to investigate the academic writing challenges faced by Bangladeshi university students in AI-supported learning environments. A structured questionnaire is used to collect data from students. The questionnaire gathers numerical information about three main areas. These are students' use of AI tools, their perceived benefits of AI, and their difficulties in academic writing. The survey design enables the researcher to collect responses from many participants simultaneously. The data is then analyzed using descriptive statistics to identify patterns. This design is appropriate for this study. The study aims to identify common challenges, usage patterns, perceptions, and difficulties related to AI-supported academic writing.

### 3.4 Research Instrument

The questionnaire consists of closed-ended questions, multiple-choice items, and Likert-scale statements. The survey is divided into several sections:

- Use of AI tools for academic writing
- Purposes of using AI tools
- Instructions used in AI prompts
- Challenges in academic writing
- Challenges when using AI tools
- Perceived benefits of AI-supported writing (Likert scale)
- Helpfulness of AI feedback (rating scale)

The questionnaire is designed to align with the research questions and measure students' experiences with AI-supported academic writing.

### 3.5 Data Collection Procedures

The data were collected using an online questionnaire created in Google Forms. The survey link was shared with undergraduate students through social media platforms and academic groups. Participants were informed about the purpose of the study before completing the questionnaire. They were also informed that participation was voluntary and anonymous. The data collection process was conducted over a period of approximately two weeks.

### 3.6 Data Analysis

The collected data were analyzed using descriptive statistical methods. The responses were calculated in terms of frequency, percentage, and mean scores for Likert-scale items. The results were presented using tables and charts, including pie charts, to identify patterns in students' academic writing challenges, AI tool usage, perceptions, and difficulties with AI-generated feedback.

### 3.7 Ethical Considerations

This study follows proper ethical guidelines. The goal is to protect all participants throughout the research process. Participation in the survey is completely voluntary. Students are free to choose whether they want to participate or not. Before completing the questionnaire, all respondents are informed about the purpose of the research. No personal or identifying information is collected in the questionnaire. This includes names, student IDs, and contact details. All responses are kept anonymous. This protects the privacy and confidentiality of all participants. The data collected in this study are used solely for academic research. Participants are informed that their responses will be reported in summarized form. This includes percentages and charts. Individual responses will not be identified or shared. The researcher ensures that all collected data will be stored securely. The data will not be shared with anyone outside the research team. The survey does not include any sensitive or harmful questions. It focuses only on students' experiences with academic writing and AI tools. Therefore, this research is safe for all participants.

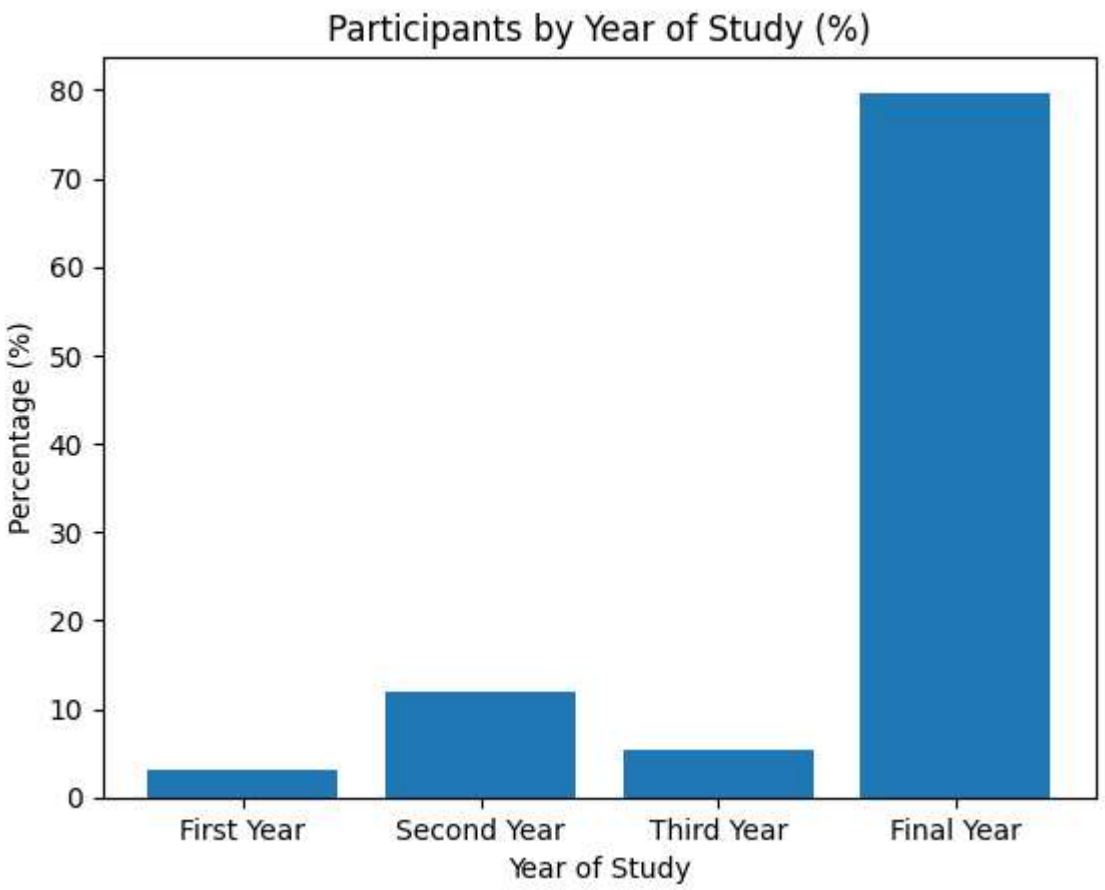
# CHAPTER 4:
# FINDINGS AND ANALYSIS

## 4.1 Introduction

Artificial Intelligence is becoming an important part of education and is increasingly used in academic writing by Bangladeshi university students. These tools can support writing by helping improve language accuracy, addressing writing difficulties, and providing feedback. However, concerns remain regarding ethical use, over-reliance on AI, and its overall effectiveness in developing students' academic writing skills. This chapter aims to provide a detailed analysis of data collected from 60 Bangladeshi university students. The data was gathered through a survey. The survey was designed to explore three main areas. These are how students use AI in academic writing, the challenges they face, and how effective AI-generated feedback is for them. The results are analyzed in relation to existing research on the role of AI in academic writing and learning. This chapter will explain the findings in context. It will also discuss what the findings mean for educational practices. Finally, it will suggest areas where further research is needed. The survey data provide valuable insights into student experiences with AI tools. They show how students use AI, what benefits they see, and what challenges they face. They also show how effective AI feedback is in academic writing. These findings are important for two main reasons. First, they help us understand student experiences with AI. Second, they can guide teachers and policymakers in making decisions about adopting AI technologies in academic settings.

## 4.2 Demographics Information

The participants in this study were 60 university students from different years of study in Bangladesh. They were surveyed to understand their experiences using AI tools in academic writing. The demographic information helps explain how students' experiences and academic background influence the way they use AI. Most students (79.7%) were in their final year, while smaller numbers were in second (11.9%), third (5.3%), and first year (3.1%). The higher number of final-year students is important because they have more experience with complex writing tasks such as theses and research papers, which require strong writing skills and attention to academic standards. The survey also showed that students use AI tools in several ways. They use them to generate ideas, draft paragraphs, and organize their writing. AI also

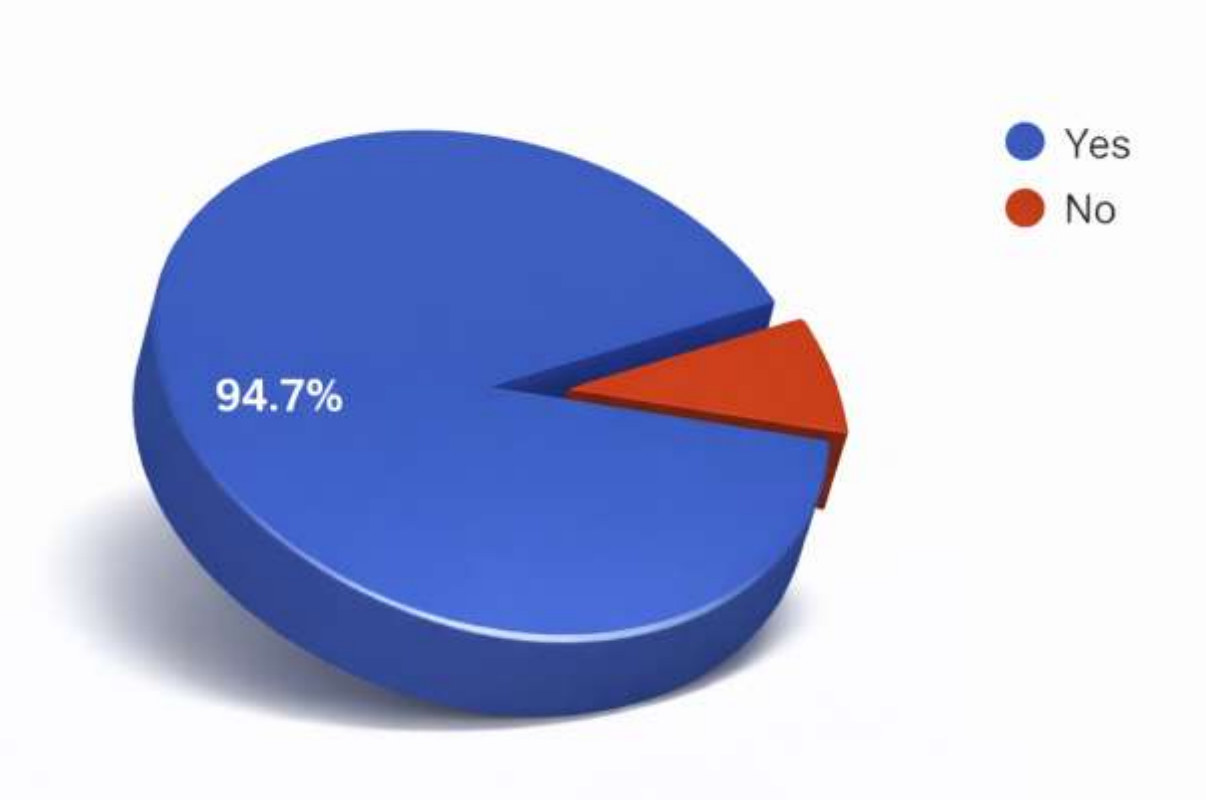



helps them check grammar expand their vocabulary, and make their sentences clearer. Students also use AI to paraphrase and revise their drafts. Overall, AI tools act as helpers that support students throughout different stages of the writing process.

### 4.3 AI Tools Usage in Academic Writing

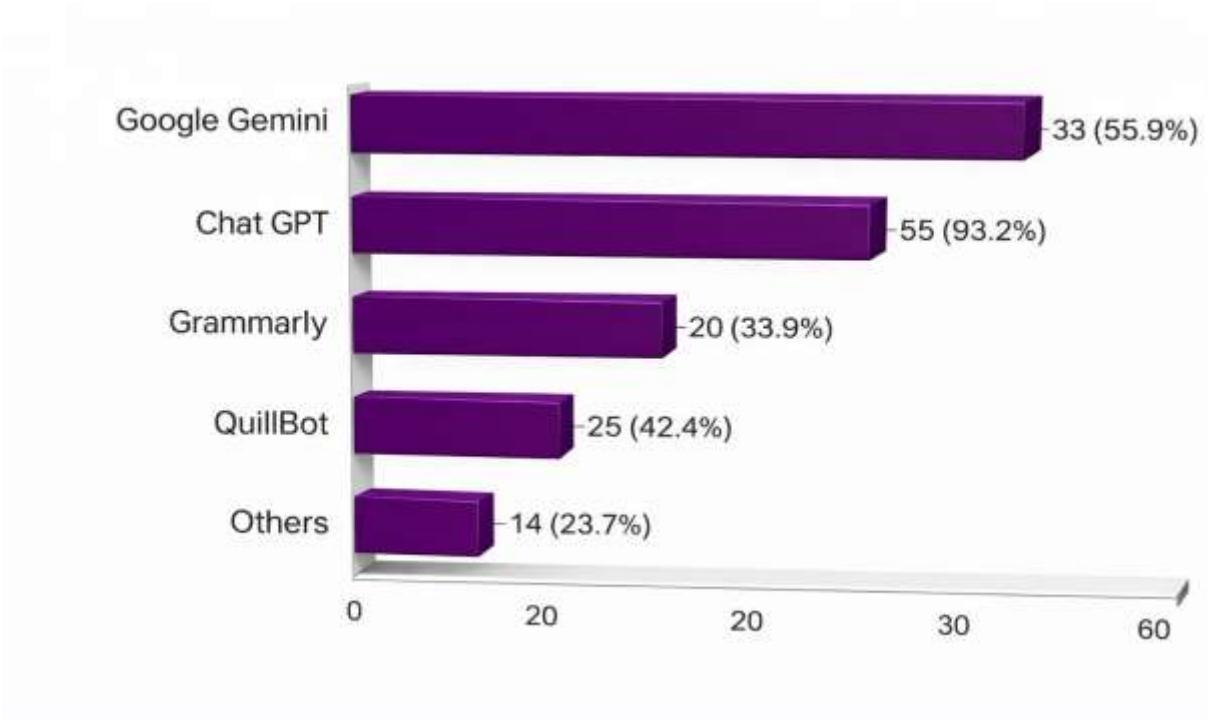
The findings of this study reveal that AI tools are widely used by Bangladeshi university students for academic writing. A significant 94.7% of participants reported using AI tools in their writing process. This high percentage indicates that AI technology has become an integral part of students' academic practices. The widespread adoption of AI tools suggests that students perceive these tools as useful resources for improving writing quality and completing assignments more efficiently. Among the various AI tools used by students, ChatGPT emerged as the most popular, with 93.2% of respondents reporting its use for academic writing. The popularity of ChatGPT may be attributed to its versatility and ease of use. Students can use ChatGPT for brainstorming ideas, generating paragraphs, paraphrasing content, and improving sentence structure. Additionally, ChatGPT provides instant responses, making convenient for

students under time pressure. This flexibility allows students to use the tool at different stages of the writing process. The second-most-commonly used tool was Google Gemini, with 55.9% of respondents reporting use.  Google Gemini is known for its ability to generate structured responses and summarising information effectively. Students may prefer this tool when they need assistance with organizing content or understanding complex topics. The use of multiple AI tools suggests that students are not limited to a single platform but instead combine tools to meet their writing needs. Grammarly was used by 33.9% of participants.




Popular tools

This tool is primarily focused on grammar correction, punctuation, and sentence clarity. Grammarly helps students identify language errors and improve readability.




Popular Tools

The use of Grammarly indicates that students are concerned about maintaining grammatical accuracy in their academic writing. For students who struggle with English grammar, this tool provides valuable support. QuillBot was used by 42.4% of respondents, mainly for paraphrasing and rewriting sentences. Paraphrasing is an essential skill in academic writing, particularly when students need to present information from sources in their own words. QuillBot helps students avoid plagiarism by rephrasing content while maintaining meaning. The use of paraphrasing tools reflects students' awareness of the requirements for academic integrity and originality. The survey also examined the purposes for which students use AI tools. The most common use was idea generation, with 66.1% of students reporting that they use AI for brainstorming. This finding suggests that students often struggle to get started on their writing tasks. AI tools help them overcome this difficulty by suggesting possible ideas, outlines, and examples. This support can reduce anxiety and encourage students to begin writing more confidently. Writing full paragraphs was another common use, reported by 47.5% of respondents. This indicates that many students rely on AI tools to generate initial drafts. These drafts may serve as models that students modify and refine. While this practice can help students learn structure and organization, it may also raise concerns about over-dependence on AI-generated content. Grammar correction was also reported by 47.5% of participants. This shows that students use AI tools not only for content generation but also for improving language

accuracy. Grammar correction tools help students identify mistakes and produce more polished writing. This is particularly important for students writing in English as a second language. Other uses included paraphrasing (47.5%) and organizing structure (39%). These findings indicate that students use AI tools throughout the entire writing process. From idea generation to final editing, AI tools support multiple stages of writing. This multifaceted use highlights the growing role of AI as a writing assistant. Overall, the findings suggest that AI tools have become essential resources for academic writing. Students use these tools for brainstorming, drafting, revising, and editing. The high usage rate indicates that AI-supported writing is becoming a common practice in higher education. However, this widespread use also highlights the importance of guiding students on responsible and effective AI usage.

### 4.4 Perceived Benefits of AI in Academic Writing

The survey results show that students generally think AI tools help improve different parts of academic writing. Most students said that AI helps them generate ideas, improve grammar, learn new vocabulary, and feel more confident in their writing. This means students see AI as a useful support during the writing process. One of the biggest benefits is idea generation. Around 60% of students strongly agreed that AI tools help them generate ideas. Many students find it difficult to start writing because they are unsure how to begin or organise their thoughts. AI tools can suggest topics, give outlines, and provide example arguments. This helps students overcome writer's block and start writing more easily. AI tools also help improve grammar and sentence structure. About 55.9% of students agreed that AI helps correct their grammar. Good grammar is important in academic writing because it makes ideas clear and easy to understand. Students who struggle with English grammar can benefit from quick corrections and suggestions. AI tools also offer different ways to write sentences, helping students learn and improve over time. Another benefit is vocabulary improvement. Around 45.8% of students said AI helps them learn new words. Academic writing requires formal and clear language, which can be difficult for many students. AI tools suggest better words, synonyms, and suitable expressions. This helps students use more appropriate academic language and improve the quality of their writing. AI tools also increase students' confidence. About 55.9% of students agreed that AI makes them feel more confident. Writing can be stressful, especially when students are unsure about grammar or structure. AI gives support by providing suggestions and corrections. This reduces anxiety and encourages students to write more. However, AI tools do not always save time. Only 28.3% of students agreed that AI helps them finish work faster.

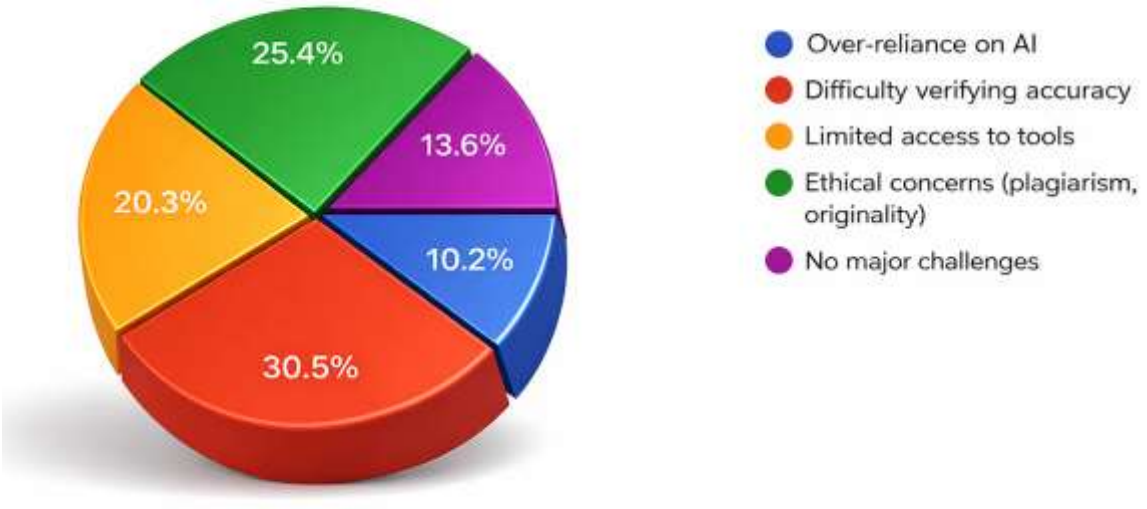
Students often need to check, edit, and improve AI-generated content, which takes time. They may also compare different responses before finalizing their work. Overall, AI tools help learn and improve writing skills. They support students in many ways, but they are not quick solutions. Their benefits depend on how students use them.

| Aspect of Academic Writing | % of Students Agreeing | Key Benefits/Insights |
|---|---|---|
| 💡 Idea Generation | 60% strongly agreed | Helps overcome writer's block; AI suggests topics, outlines, and arguments. |
| ✍️ Grammar Improvement | 55.9% agreed | Provides quick corrections; improves clarity and sentence structure. |
| 📚 Vocabulary Development | 45.8% agreed | Suggests synonyms and academic expressions; improves formal language use. |
| 🌟 Confidence Boost | 55.9% agreed | Reduces anxiety; students feel more confident when supported by AI suggestions. |
| ⏱️ Time Efficiency | 28.3% agreed | Limited benefit; students still spend time editing and refining AI outputs. |

### 4.5 Challenges Faced by Students Using AI Tools

Although AI tools offer many benefits, students also face several challenges when using them for academic writing. The survey showed problems such as over-reliance on AI, difficulty checking accuracy, ethical concerns, and limited access. These findings suggest that AI can support learning, but it also creates risks. One common problem is over-reliance on AI. About 25.4% of students said they worry about depending too much on AI tools. Some students use AI to generate ideas or even complete parts of their writing rather than thinking independently. This can reduce critical thinking and creativity. When students rely too much on AI, they may not fully engage in the writing process, which can slow down their learning. Another major issue is checking the accuracy of AI-generated content. Around 20.3% of students said they find it difficult to know whether the information is correct. AI tools can sometimes give wrong or unclear answers that still sound convincing. Students who are not experienced in evaluating sources may accept this information without questioning it. This can lower the quality of their academic work. Ethical concerns are also important. About 13.6% of students worry about plagiarism and originality. They may feel confused about how much they should change AI-

generated text before using it. This creates uncertainty about what is acceptable and may lead to unintentional academic misconduct. Limited access is another challenge. Around 10.2% of students reported problems such as poor internet connection or inability to use paid AI tools. This creates inequality, as not all students can benefit equally from AI support. In addition, overuse of AI may reduce independent thinking. Students may struggle to develop their own ideas and arguments. They may also find it difficult to adjust AI-generated content to match academic style and requirements. Overall, AI tools are helpful, but they must be used carefully. Proper guidance is needed to ensure students use AI responsibly while still developing their own writing skills.




Challenges face

### 4.6 Modification of AI-Generated Text

The survey included a question asking students how often they modify AI-generated text before submitting their academic assignments. The responses indicate that most students do not submit AI-generated content directly. A large number of students reported modify AI-generated text, while another significant group indicated they always edit the content before submission. A smaller number selected sometimes, and only a few students reported rarely or never modifying AI-generated content. These findings suggest that students actively engage with AI-generated output rather than blindly rely on it. The high percentage of “often” and “always” responses indicates that students treat AI-generated content as a draft rather than a final version. This reflects a more responsible use of AI tools in academic writing. Students appear to understand the importance of revising AI-generated content to maintain originality and meet academic requirements. Students who modify AI-generated text may make several types of changes. They may adjust vocabulary, restructure sentences, add examples, or include their own ideas. These modifications help students personalize the content and align it with their assignment instructions.

| Response Option | Percentage (Approx.) | Interpretation |
|---|---|---|
| Always modify | High | Students consistently edit AI-generated output, demonstrating strong engagement and responsibility. |
| Often modify | High | Students treat AI responses as drafts, revising them before submission. |
| Sometimes modify | Moderate | Students occasionally edit, balancing between reliance and independent writing. |
| Rarely modify | Low | Indicates some depend, with little without much personal input. |
| Never modify | Very Low | Suggests complete reliance on AI, raising concerns about originality and learning. |

Editing AI-generated text also allows students to improve clarity and coherence. This process encourages students to engage actively in writing rather than simply copying content. Another interpretation of this finding is that students are aware of academic integrity concerns. By modifying AI-generated content, students aim to avoid plagiarism while maintaining originality. This suggests that students recognize the ethical implications of AI use. Editing AI-generated text helps ensure that the final submission reflects students' own understanding and effort. However, the smaller percentage of students who rarely modify AI-generated text raises concerns. These students may rely heavily on AI output without critically evaluating it. This behavior may limit learning and hinder independent writing development. It may also increase the risk of submitting inaccurate or inappropriate content. The findings also suggest that AI tools function as collaborative writing assistants. Students use AI to generate ideas and drafts, then revise them to produce final versions. This collaborative process combines AI support with human judgment. Such interaction may promote learning and skill development. Overall, the results indicate that most students actively revise AI-generated content. This suggests a balanced approach to AI-supported writing. Students benefit from AI assistance while maintaining control over their writing. This behavior supports skill development and responsible AI use.

### 4.7 AI and Independent Writing Skill Development

The survey asked students whether AI tools help improve their independent academic writing skills. Most students agreed or strongly agreed. This shows that many students see AI tools as helpful for learning, not as a replacement for their own work. They believe AI supports their writing development. Students who agreed may use AI as a learning assistant. AI tools can suggest better vocabulary, correct grammar, improve sentence structure, and help organize paragraphs. By reviewing these suggestions, students can learn to write more clearly and logically. Over time, this can improve their own writing skills. Another reason is that students use AI feedback to revise their work. When they compare their writing with AI suggestions, they can find their mistakes, such as weak word choice or unclear ideas. This helps them improve and become more active learners. However, some students gave neutral answers. This may mean they use AI only to complete assignments, not to learn from it. If students do not think about the suggestions, they may not improve much. So, how students use AI is very important. A small number of students disagreed. They may worry that overusing AI could prevent them from thinking independently. Copying AI-generated text can reduce creativity

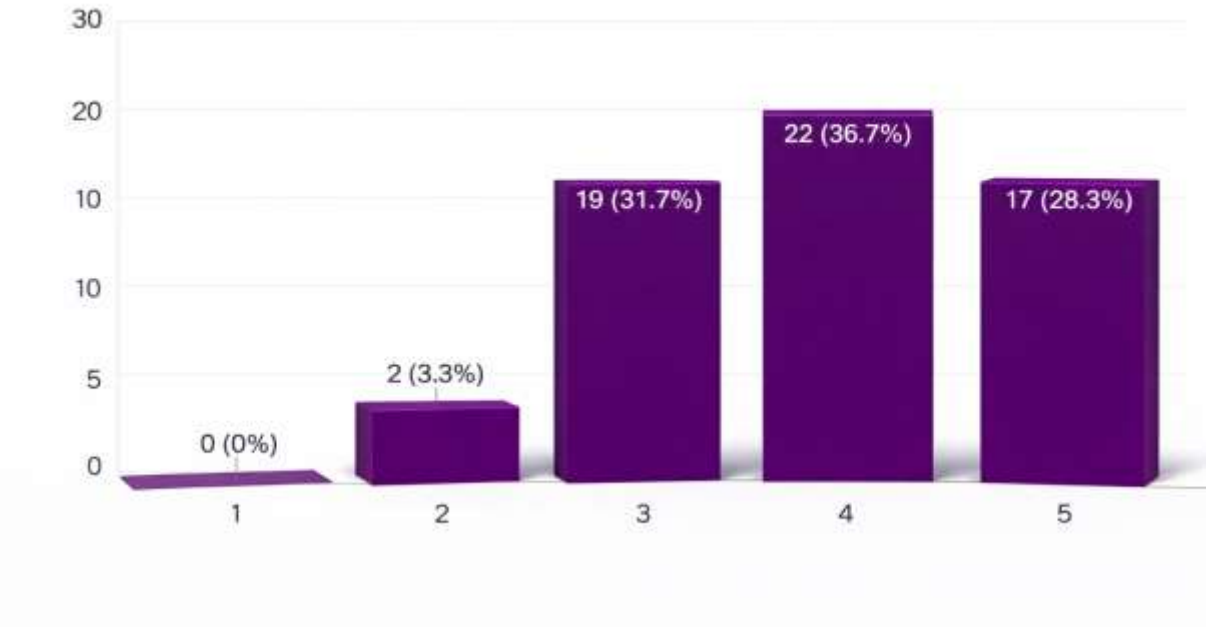
| Response Option | Percentage (Approx.) | Interpretation |
|---|---|---|
| Strongly Agree | High | Students feel AI strongly supports their writing growth, helping with vocabulary, structure, and organization. |
| Agree | High | Indicates positive perception of AI as a learning aid rather than a shortcut. |
| Neutral | Moderate | Some students are unsure if AI improves their skills, possibly using it mainly for task completion. |
| Disagree | Low | Suggests concern that AI may reduce independent thinking or creativity. |
| Strongly Disagree | Very Low | Reflects about AI's role in skill development, with fears of over-reliance. skepticism |

and critical thinking. So, AI tools can help improve writing skills, but only when used properly. Active and thoughtful use leads to better learning, while over-reliance can limit development.

### 4.8 AI Feedback Effectiveness

The effectiveness of AI-generated feedback was another important focus of this study. The survey results indicate that students generally perceive AI feedback as helpful, although its effectiveness varies. The majority of respondents (36.7%) rated AI feedback as helpful, while 31.7% rated it as moderately helpful. Additionally, 28.3% of respondents rated AI feedback as very helpful. These findings suggest that students value AI-generated feedback, but it is not considered sufficient to replace human feedback entirely. AI-generated feedback is particularly useful for identifying surface-level errors. These include grammatical mistakes, spelling errors, punctuation issues, and awkward phrasing. Students often benefit from instant corrections provided by AI tools. This type of feedback helps students produce more polished and accurate writing. For learners who struggle with language accuracy, AI feedback provides immediate assistance. Students who rated AI feedback as moderately helpful may have found it useful but limited. AI tools may suggest improvements in clarity and sentence structure, but they may not fully address deeper issues such as argument development or logical flow. Academic writing requires critical analysis, originality, and strong argumentation. AI tools may not always provide meaningful guidance in these areas. As a result, students may still need feedback from instructors. The group of students who rated AI feedback as very helpful likely found it beneficial in multiple aspects of writing. These students may use AI tools extensively for

revising drafts and improving coherence. AI tools can suggest transitions, reorganize sentences, and improve readability. These features may enhance overall writing quality. Students who actively use AI feedback may experience greater improvement in their writing. Despite these benefits, AI feedback has certain limitation for example, AI may provide general suggestions that do not align with the instructor's expectations. Students need to evaluate AI feedback carefully before applying it. Blindly accepting suggestions may not always improve writing quality. ns. AI tools may not fully understand assignment requirements or specific academic context.



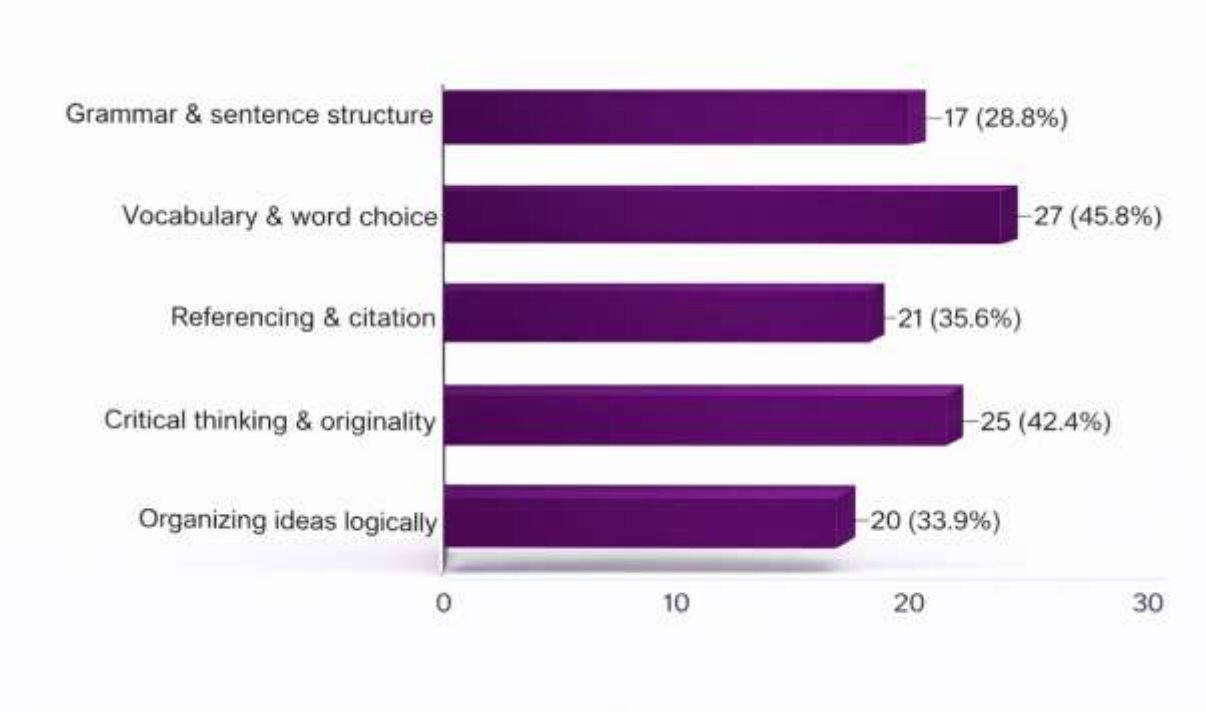

Effectiveness of AI-Feedback

Another limitation of AI feedback is its inability to provide personalized guidance. Human instructors can identify students' specific weaknesses and provide targeted feedback. AI tools, on the other hand, generate generalized responses. While useful, these responses may not address individual learning needs. Therefore, AI feedback should complement rather than replace human feedback. Additionally, AI-generated feedback may sometimes be inconsistent. Different AI tools may provide different suggestions for the same text. This may confuse students and make it difficult to decide which suggestion to follow. Students need critical judgment to evaluate AI feedback effectively. Overall, the findings suggest that AI-generated feedback is helpful but not sufficient on its own. AI tools are effective for improving grammar, clarity, and sentence structure. However, they are less effective in addressing higher-order

writing skills such as argument development and critical thinking. Therefore, AI feedback should be used alongside teacher feedback for the best result.

### 4.9 Aspects of Academic Writing that Students Find Challenging

The survey asked students about the most difficult parts of academic writing. The results show that students struggle in several areas, such as vocabulary and word choice, critical thinking and originality, referencing and citation, and grammar and sentence structure. These findings show that academic writing is not easy and students need support across various areas. Vocabulary and word choice were the biggest challenges, with 45.8% of students selecting this option. Academic writing requires formal and precise language. Many students, especially those who use English as a second language, find it hard to choose the right words or avoid repetition. AI tools can help by suggesting better vocabulary and expressions, thereby improving their writing. Critical thinking and originality were also major difficulties. Students are expected to analyze information, give opinions, and create their own arguments. However, many students merely summarize rather than think deeply. While AI tools can generate ideas, they cannot replace independent thinking. Students still need to develop their own understanding. Referencing and citation were another challenge. Many students are confused about how to use styles like APA, MLA, or Harvard. Mistakes in referencing can lower the quality of writing and may lead to plagiarism. AI tools can help format citations, but students must still learn the basic rules. Grammar and sentence structure were also difficult for 28.8% of students. Writing clear and correct sentences is important in academic work. Students often make mistakes in tense, punctuation, and sentence formation. AI tools can correct errors, but understanding grammar is necessary for long-term improvement. Overall, academic writing includes both language and thinking skills. AI tools can support students, but real improvement depends on practice and active learning.




### 4.10 Chapter Summary

This chapter explained the survey results about students' use of AI tools in academic writing. The findings show that many university students in Bangladesh regularly use AI tools. Most students use them for generating ideas, correcting grammar, improving vocabulary, and organizing their writing. This shows that AI has become a common part of academic writing. Students reported several benefits of using AI tools. These include better ideas, improved vocabulary, fewer grammar mistakes, and more confidence in writing. Many students see AI as a helpful support during the writing process. However, AI does not always save time. Students often need extra time to check and revise AI-generated content. The study also found some challenges. Students mentioned over-reliance on AI, issues with accuracy checks, ethical concerns, and limited access. These issues show that students need proper guidance to use AI responsibly. AI should support learning, not replace it. Most students said they edit AI-generated text before submitting their work. This means they do not rely entirely on AI and strive to keep their writing original. It also shows a balanced use of AI tools. Students also believe that AI can improve their independent writing skills, especially when they actively use suggestions. However, if students depend too much on AI, their learning may be limited. Finally, students still face problems with vocabulary, critical thinking, referencing, and grammar. AI can help, but students must practice to improve. Overall, AI is helpful, but careful and balanced use is important.

# CHAPTER 5

# SUMMARY AND CONCLUSIONS

## 5.1 Summary of the Study

This study aimed to investigate how Bangladeshi university students experience academic writing in an AI-supported learning environment. The research had three main objectives: to identify students' writing challenges, to examine their use of AI tools, and to explore their perceptions of AI-generated feedback. A total of 60 university students from different academic years in Bangladesh participated in the study. Data were collected through a structured questionnaire and analyzed using descriptive statistics such as percentages, which were presented in charts. The findings show that AI tools are widely used in academic writing among students, with ChatGPT being the most frequently used tool. Students mainly use AI for idea generation, grammar correction, vocabulary improvement, paragraph writing, and organizing ideas. This supports earlier studies in the literature that AI tools are commonly used as writing assistance tools for surface-level support such as grammar and structure improvement. The results also indicate that students do not fully depend on AI outputs. Most students reported that they modify or edit AI-generated content before submission. This reflects the idea of learner agency discussed in the literature, where AI is used as a support tool rather than a replacement for human writing. It also aligns with Process Writing Theory, which emphasizes drafting, revising, and improving writing. However, the study also found some challenges, including over-reliance on AI, difficulty in verifying AI-generated information, and ethical concerns related to plagiarism. These issues are also supported by previous research, which highlights concerns about academic integrity and accuracy in AI-assisted learning environments. Despite these challenges, most students believe that AI tools help improve their writing confidence and support independent learning. This finding is consistent with. The Technology Acceptance Model (TAM) explains how users decide to adopt and use technology based on how useful and easy they perceive it to be.

## 5.2 Major Findings of the Study

The study identified several important findings based on the survey responses. First, AI tools are widely used among Bangladeshi university students. The majority of students reported using AI tools for academic writing. This indicates that AI-supported writing is becoming common in higher education. Second, ChatGPT is the most preferred AI tool. Students also use other tools such as Google Gemini, Grammarly, and QuillBot. These tools support different stages of writing such as brainstorming, drafting, and editing. Third, students use AI tools mainly for idea generation. This suggests that students have difficulty getting started with their writing. AI tools help them overcome this challenge by providing suggestions and outlines. Fourth, students reported several benefits of AI tools. These include grammar improvement, vocabulary enhancement, better organization, and increased confidence. AI tools also help students understand the structure of academic writing. Fifth, students also face challenges while using AI tools. Over-reliance on AI was one of the major concerns. Some students depend too much on AI-generated content. This may reduce independent thinking. Sixth, students reported difficulty verifying AI-generated information. AI sometimes produces incorrect or unreliable content. Students must carefully check accuracy. Seventh, ethical concerns were also identified. Students worry about plagiarism and originality. Using AI-generated text without modification may create academic integrity issues. Eighth, most students reported modifying AI-generated content before submission. This indicates that students use AI as support rather than replacing their own writing. Ninth, most students believe that AI tools improve their independent writing skills. Students learn vocabulary, sentence structure, and organization from AI feedback. Finally, students reported vocabulary, critical thinking, and referencing as the most challenging aspects of academic writing. AI tools help address these challenges but cannot fully replace learning.

### 5.3 Implications of the Study

The findings of this study have important implications for students, teachers, and educational institutions. For students, the findings suggest that AI tools can be helpful learning assistants. Students can use AI to generate ideas, improve grammar, and learn academic vocabulary. However, students must avoid over-reliance and actively engage in writing. For teachers, the findings indicate that AI tools are already widely used by students. Therefore, teachers should guide students on how to use AI responsibly. Teachers can provide instruction on prompt writing, editing AI output, and maintaining academic integrity. For educational institutions, the findings suggest the need for clear guidelines on AI use. Universities should develop policies that encourage responsible AI use while preventing misuse. Institutions should also provide training workshops on AI-supported academic writing. The study also highlights the importance of balancing AI use with independent learning. AI should support students' writing development, not replace it. Students should be encouraged to critically evaluate AI suggestions.

### 5.4 Recommendations

Based on the findings of the study, the following recommendations are proposed.

#### 5.4.1 Recommendations for Students

Students should use AI tools as supportive learning tools rather than complete writing solutions. They should generate ideas using AI but develop their own arguments. Students should also revise AI-generated content carefully before submission. Students should verify the accuracy of AI-generated information. They should check references and confirm facts using reliable academic sources. This will help avoid incorrect information. Students should avoid copying AI-generated text directly. Instead, they should paraphrase, add their own ideas, and maintain originality. This will help improve writing skills. Students should use AI tools to learn vocabulary and sentence structure. This will help develop independent writing skills over time.

### 5.4.2 Recommendations for Teachers

Teachers should provide guidance on responsible AI use. They should explain both benefits and risks of AI tools. Students should be trained to use AI ethically. Teachers can design assignments that require critical thinking. This will reduce over-reliance on AI tools. Tasks that involve personal opinions and analysis encourage independent writing. Teachers should also provide feedback alongside AI use. Human feedback is necessary for improving argument development and originality. Teachers may also introduce AI literacy training. This will help students understand how to interact with AI tools effectively.

### 5.4.3 Recommendations for Educational Institutions

Universities should develop clear policies regarding AI use in academic writing. These policies should define acceptable and unacceptable uses. Institutions should organize workshops on AI-supported learning. These sessions can teach students how to use AI tools responsibly. Universities should ensure equal access to AI tools. Students should have opportunities to use AI resources for learning. Institutions should also encourage research on AI in education. This will help understand long-term effects of AI-supported learning.

## 5.5 Limitations of the Study

This study has several limitations. First, the sample size was limited to 60 students. A larger sample may provide more generalizable results. Second, the study used only a survey questionnaire. Interviews or observations could provide deeper insights. Third, the study focused only on Bangladeshi university students. The findings may not apply to other contexts. Fourth, the study relied on self-reported data. Students' responses may not fully reflect their actual behavior. Despite these limitations, the study provides valuable insights into AI-supported academic writing.

## 5.6 Suggestions for Future Research

Future research should include larger sample sizes. Researchers should collect data from students at different universities. This will make the findings more generalizable. Future studies can also employ mixed-methods designs. These include interviews and writing samples. This will provide a deeper understanding of students' experiences with AI in academic writing. Future research can also examine teachers' perspectives on the use of AI in writing. This will help researchers understand the implications of AI in the classroom. Researchers can also

investigate the long-term effects of AI use on students' writing development. This will show whether AI helps or hinders writing skills over time. Finally, future studies can compare AI-supported writing with traditional writing methods. This will help determine which approach is more effective for students.

## 5.7 Conclusion

This study explored the challenges Bangladeshi university students face in academic writing when using AI tools. The findings showed that AI tools are widely used among students. They provide significant support in academic writing. Students use AI tools for many purposes. These include generating ideas, correcting grammar, improving vocabulary, and organizing their writing. However, students also face several challenges when using AI. These challenges include over-reliance on AI, concerns about accuracy, and ethical issues such as plagiarism. Most students modify AI-generated content before submitting their work. Most students also believe that AI helps improve their writing skills. This suggests that AI functions as a helpful learning tool when used thoughtfully. Overall, AI tools play an important role in supporting academic writing. When used responsibly, AI can improve students' writing skills and boost their confidence. However, students must balance their use of AI with independent thinking and effort. Teachers and institutions also play an important role. They should provide clear guidance to students. This will help ensure that AI is used effectively and ethically in academic writing.

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# Appendix

## Section A: Demographic Information

**1. University Type**

- Private
- Public
- Other: _____

**2. Year of Study**

- 1st Year
- 2nd Year
- 3rd Year
- Final Year

## Section B: AI Usage in Academic Writing

**3. Have you used AI tools for academic writing?**

- Yes
- No

**4. If yes, which AI tools do you use?** *(Select all that apply)*

- Google Gemini
- ChatGPT
- Grammarly
- QuillBot
- Others: _____

**5. For what purposes do you use AI tools?** *(Select all that apply)*

- Generating ideas
- Writing full paragraphs
- Grammar correction
- Paraphrasing
- Organizing structure
- Referencing help
- Getting feedback
- Writing drafts
- Improving vocabulary
- Summarizing texts
- Formatting references

**6. What specific instructions do you usually include in your AI prompts?** *(Select all that apply)*

- Topic
- Word Limit
- Academic Tone
- References
- Others: _____

## Section C: Academic Writing Challenges

**7. Which aspect of academic writing do you find most challenging?**

- Grammar and Sentence Structure
- Vocabulary and Word Choice
- Referencing and Citation
- Critical Thinking and Originality
- Organizing Ideas Logically

**8. What challenges do you face when using AI tools?**

- Over-reliance on AI
- Difficulty Verifying Accuracy
- Limited Access to Tools
- Ethical Concerns (Plagiarism/Originality)
- No Major Challenges

## Section D: Perceived Benefits of AI in Academic Writing

**9. Please indicate your level of agreement with the following statements:**

| Statement | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|---|---|---|---|---|
| AI helps me generate ideas for academic writing. | ☐ | ☐ | ☐ | ☐ | ☐ |
| AI improves my grammar and sentence structure. | ☐ | ☐ | ☐ | ☐ | ☐ |
| AI helps me learn new vocabulary. | ☐ | ☐ | ☐ | ☐ | ☐ |
| AI increases my confidence in academic writing. | ☐ | ☐ | ☐ | ☐ | ☐ |
| AI saves time when completing assignments. | ☐ | ☐ | ☐ | ☐ | ☐ |

## Section E: AI Feedback Evaluation

**10. How helpful do you find AI-generated feedback in improving your writing?**

- Not Helpful
- 1
- 2
- 3
- 4
- 5
- Very Helpful