



# APPLICATION OF CHATGPT IN ENHANCING ENGLISH WRITING SKILL FOR THE FIRST-YEAR MAJOR STUDENTS: A CASE STUDY AT HA TINH UNIVERSITY

HOANG DIEP ANH

Ha Tinh University, Ha Tinh Province, Vietnam

Email: anh.hoangdiep@htu.edu.vn

## Abstract

This study aimed to investigate the effectiveness of ChatGPT in improving students' writing skills. The subjects participating in the study were first-year students of English at Ha Tinh University. The researcher employed an empirical research method to collect data through survey questions. In addition, before applying ChatGPT as a writing tool, students were given a pre-test, and at the end of the study, a post-test was conducted. The collected data were analyzed using quantitative methods. The findings of this study suggest that most students find ChatGPT useful and that its application is beneficial for enhancing their writing skills. The results indicate that the integration of ChatGPT in the learning process can significantly improve students' writing quality and proficiency.

## Keywords:

Writing skills, enhancement, 1st major students, ChatGPT, A case study.

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## A. Introduction

Writing skills are fundamental for first-year students at Ha Tinh University, playing a critical role in expressing ideas clearly, supporting academic learning, and facilitating research activities. The ability to write effectively is not only essential for success in higher education but also for students' future professional development. As such, it is imperative to begin developing strong writing skills from the outset of university education.



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However, many first-year students encounter considerable challenges in this area, particularly related to vocabulary, grammar, and sentence structure. A limited vocabulary can hinder the ability to convey ideas accurately and fluently, while frequent grammatical errors—such as incorrect verb tenses, word forms, and issues with subject-verb agreement—often impair clarity and precision. These foundational gaps highlight the need for targeted support in writing instruction.

The integration of AI tools like ChatGPT into educational contexts marks a transformative development in language learning. As an interactive and adaptive technology, ChatGPT offers real-time feedback on grammar, vocabulary, and sentence structure—key areas where first-year students typically struggle due to limited prior practice. Its capacity to simulate human-like responses positions it as a valuable supplement to traditional classroom instruction, providing personalized guidance and helping students bridge individual learning gaps.

### **Purpose of the Study**

This study aims to evaluate the effectiveness of ChatGPT in enhancing the English writing skills of first-year students, with a particular focus on accuracy, coherence, vocabulary richness, and idea organization. It seeks to analyze how students utilize AI-generated feedback in their writing process and assess the degree to which this support contributes to measurable improvements. Moreover, the study explores students' perceptions of ChatGPT-assisted learning, examining their engagement, motivation, and views on the long-term educational value of AI tools.

To achieve these goals, the study will Define clear objectives for assessing ChatGPT's role in writing instruction, review relevant literature on the use of ChatGPT in language education and apply appropriate assessment methods to evaluate its effectiveness in improving student writing.

By investigating the intersection of AI and education, this research aims to offer meaningful insights into how emerging technologies can shape the future of English language learning and enhance the overall quality of instruction. The research questions are given to meet the purpose of the study:

1. Can ChatGPT help first-year students enhance their English writing skills?
2. Which aspects of ChatGPT (e.g., grammar correction, vocabulary suggestions, sentence structure improvements) are most beneficial for writing improvement?
3. Do students find ChatGPT helpful in their writing process, and how do they perceive its effectiveness?

This study employs a case study design to explore the application of ChatGPT in enhancing English writing skills among first-year students at Ha Tinh University. The quantitative method analyzes pre-test and post-test scores to measure improvement, while the qualitative method examines students' perceptions through survey responses, providing a comprehensive understanding of ChatGPT's impact.

## B. REVIEW OF RELATED LITERATURE

### 1 Definition of ChatGPT

Different definitions of ChatGPT have been provided by researchers and technology experts. According to Encyclopedia Britannica, ChatGPT is an artificial intelligence chatbot developed by OpenAI that allows users to ask questions and receive responses in natural language. Another essential aspect of ChatGPT is its ability to facilitate human-like interactions, making it a valuable tool for education, communication, and various other fields.

According to TechTerms.com, ChatGPT is a generative AI model based on the GPT (Generative Pre-trained Transformer) architecture, designed to process and generate human-like text. It has been trained on extensive textual data from the internet, enabling it to recognize linguistic patterns and generate coherent responses. However, despite its advanced capabilities, ChatGPT is not perfect and may sometimes produce inaccurate or misleading information.

### 2 Writing skill in first year students

Writing skills are among the most essential language communication skills, allowing individuals to express thoughts, ideas, and information clearly, accurately, and effectively. Writing is not only a means of conveying information but also a tool for demonstrating reasoning, argumentation, and creativity. It is a fundamental skill in education, professional work, and everyday communication, playing a crucial role in personal and professional development. According to Harmer (2004), writing is a complex cognitive process that requires the writer to organize and structure ideas logically.

First-year students of K17 in the English Language program at Ha Tinh University face numerous challenges in improving their writing skills. One of the most significant difficulties is their limited vocabulary, which makes it hard for them to express ideas clearly and accurately. Additionally, common grammatical errors, such as incorrect sentence structures and tense usage, affect the coherence and accuracy of their writing. Furthermore, the lack of specific feedback from instructors or peers prevents students from identifying and addressing their weaknesses effectively. Therefore, constructive feedback plays a crucial role in helping students recognize mistakes, adjust their writing strategies, and enhance the quality of their work. Grammar correction improves accuracy, while vocabulary enhancement expands their ability to articulate ideas more effectively. As a result, students can develop their writing skills more efficiently and gain confidence in their learning process.

### 3 Empirical researches

The use of ChatGPT in academic writing has gained attention in recent years, with several studies examining its benefits and challenges. A notable study by Mohammed Jamshed (2023), *The Impact of ChatGPT on English Language Learners' Writing Skills*, found that EFL students who used ChatGPT showed improvements in grammar, coherence, and fluency. It helped generate ideas, expand vocabulary, and offer real-time feedback. However, Jamshed warned that over-reliance could reduce critical thinking and originality.

His study mainly focused on linguistic improvements without exploring students' sense of ownership over their work.

Building on this, Andrew Jelson (2024) conducted *An Empirical Study to Understand How Students Use ChatGPT for Writing Essays and How It Affects Their Ownership*. Jelson examined how ChatGPT influenced student engagement and attitudes toward their writing. While students appreciated help with structure and clarity, many felt the AI responses weakened their personal voice and intent. Some became detached from their work, especially when relying on ChatGPT without critical thinking. Jelson's work shifted focus from language improvement to cognitive and psychological effects, raising concerns about authenticity and academic integrity.

A third study by Phạm Thị Thảo and Vũ Thị Hoàng Yến (2023), *Sử dụng ChatGPT để hỗ trợ kỹ năng viết học thuật ở bậc đại học – cơ hội và thách thức*, offered a localized view from Vietnamese universities. They echoed previous findings on improved grammar and idea development but added concerns about plagiarism and overdependence on AI. The authors emphasized the need for educator supervision and proposed developing institutional guidelines for ethical use—topics less explored in earlier research.

Our study builds on these works in three ways. First, while Jamshed and Jelson studied general EFL learners, we focus specifically on first-year English majors at Ha Tinh University, a group with uneven foundational skills. This allows for context-specific insights. Second, unlike Thảo and Yến's broad overview, we use an 8-week experimental design with pre/post-tests and surveys to quantify writing improvements in grammar, vocabulary, and overall quality, while also capturing student feedback. Third, we bridge previous gaps by combining both linguistic gains and psychological concerns, and by highlighting the lack of targeted studies on ChatGPT's impact for beginners in under-resourced settings. Our research offers practical strategies to help students use ChatGPT effectively, while maintaining originality and critical thinking.

### C. RESEARCH METHODOLOGY

This study is conducted with a specific focus on first-year students of the English Language major at Ha Tinh University, involving a total of 20 students. The research spans six weeks, during which students use ChatGPT two to three times per week to support their writing practice. This process aims to evaluate the impact of ChatGPT on enhancing students' vocabulary, grammar, and sentence structure in their writing. By tracking the development of writing skills week by week, this study provides valuable insights into the effectiveness of ChatGPT as a learning aid in language education.

This study uses a case study approach combining quantitative and qualitative methods to evaluate ChatGPT's impact on first-year students' English writing skills at Ha Tinh University. It analyzes pre- and post-test scores to measure improvement and surveys students to understand their perceptions.

## 1. Research design

This case study evaluates the impact of ChatGPT on the writing skills of first-year English language students at Ha Tinh University. The research uses pre- and post-writing tests to measure progress (quantitative) and gathers student feedback through questionnaire (qualitative). This combination provides insight into ChatGPT's effectiveness in improving academic writing skills.

## 2. Data collection

The pre-study phase (pre-test) lasts for 1 week. Students will complete an initial writing test in which they write an essay around 300 words in 60 minutes using traditional methods, without any assistance from ChatGPT or other methods (e.g., other AI models, grammar checkers like Grammarly, paraphrasing tools like QuillBot, or AI-powered translators like Google Translate), the test is as following: "Write a Letter (around 300 words) to a Foreign Friend introducing a Traditional Festival in Vietnam that you love. Describe the time, location, main activities, and the significance of the festival." The purpose of this test is to assess their initial writing proficiency in terms of vocabulary, grammar, and idea organization. Additionally, students participate in a survey designed to gather information about the challenges they face in writing, their confidence levels, and their previous experiences with academic writing.

Over the course of six weeks, 20 first-year students will participate in a writing program supported by ChatGPT, with a frequency of 2-3 sessions per week. This program aims to help students gradually improve their writing skills, from enhancing grammar and vocabulary to developing well-structured arguments in academic essays. The learning process is divided into three main phases, each focusing on a specific aspect of writing.

### Summary Table of During-Test Phase

Weeks	Topics	Duties	Feedbacks from ChatG
1-2	Introducing yourself, a memorable day, a favorite place	Write short paragraphs (100–150 words); use ChatGPT to check grammar, expand vocabulary, and improve sentence structure	Feedback on grammar mistakes, suggested synonyms, better word choices, and sentence structure improvements for smoother writing
3-4	The impact of social media, part-time jobs for students, benefits of learning English	Write essays (~300 words); develop outlines and arguments with ChatGPT's support	Feedback on idea development, coherence, logical flow, vocabulary variety, and suggestions for strengthening argument

			structure
5	Artificial intelligence: Opportunities and challenges	Write advanced essays (~350–400 words); focus on critical thinking, coherence, and writing style	Feedback on writing style, clarity of arguments, advanced vocabulary use, and organization of ideas
6	Time management for university students (or a similar topic without using ChatGPT)	Write a full essay (~350–400 words) without using ChatGPT; compare with pre-test and previous essays to assess progress	No feedback from ChatGPT; results will be analyzed based on IELTS criteria (Task Achievement, Coherence & Cohesion, Vocabulary, and Grammar accuracy)

In the post-test phase, after six weeks of using ChatGPT, students will take a final writing test. In this post-test, they are required to write an essay approximately 400 words with the same topic as in the pre-test, the topic is as following: “Describing an important event you have attended or knew about. Your essay should provide details about the name and significance of the event, the time and location it took place, the main activities during the event, and your personal impressions and feelings”. Focus on using clear and structured writing, incorporating a variety of vocabulary and correct grammar to make your description engaging and coherent. Do not use ChatGPT or any AI tools for assistance”. This allows for a direct comparison of students’ writing improvement. Additionally, students will participate in a post-study survey to evaluate their experience with ChatGPT, including its level of support, changes in their perception of writing skills, and any remaining challenges. Data collected from the final test and survey will help analyze the impact of ChatGPT on students’ writing skill development.

We conduct this study based on the IELTS scoring criteria, including Task Achievement, Coherence and Cohesion, Lexical Resource, and Grammatical Range and Accuracy. These criteria comprehensively assess students' progress, from their ability to develop ideas and organize their writing to using diverse vocabulary and applying accurate grammatical structures.

## D. FINDINGS OF THE STUDY

### 1 Result of pre and post test

The table below presents a concise summary of the main findings and insights obtained from the pre-test and post-test. Each point in the table highlights key outcomes of the study, offering readers a quick overview of our test.

*Table 1. Pre- and Post-Test Scores for Regular Writing Tasks, The Post-Test Incorporated ChatGPT Feedback*

<b>Student code</b>	<b>Pre-test</b>	<b>Post-test</b>	<b>Improvement</b>
1	2.50	4.50	2.00
2	3.00	3.00	0.00
3	2.75	5.00	2.25
4	4.25	6.50	2.25
5	5.00	6.50	1.50
6	3.75	5.50	1.75
7	5.50	6.25	0.75
8	3.25	5.50	2.25
9	5.50	7.25	1.75
10	2.00	3.00	1.00
11	6.25	7.50	1.25
12	4.75	6.75	2.00
13	3.50	5.25	1.75
14	2.75	4.50	1.75
15	5.25	5.25	0.00
16	4.00	6.25	2.25
17	3.75	5.25	1.50
18	5.00	7.50	2.50
19	2.50	4.75	2.25
20	3.00	5.50	2.50

Following a six-week intervention in which students engaged in English writing practice using ChatGPT, notable improvements were observed in their post-test performance. Among the 20 participants, 18 exhibited positive gains in their writing scores. The mean improvement was 1.66 points, with a median of 1.75 points, and a standard deviation of 0.72, indicating moderate variability across individual outcomes. The maximum improvement recorded was 2.5 points, while two students showed no measurable change. These results suggest that the integration of AI-assisted tools, such as ChatGPT, into writing instruction may contribute to enhanced student performance and support skill development in academic writing.

## **2 Survey questionnaire after the pre-test study**

Prior to the main study, a preliminary survey was conducted to gain insights into participants' backgrounds and initial perceptions of their English writing abilities. The survey comprised five questions, organized into two thematic categories. The first category focused on students' language learning history and self-perception, including the duration of their English language learning, their self-assessed writing proficiency, and their confidence in

writing. The second category explored common challenges encountered during the writing process and the types of tools students typically used to support their English writing tasks. This preliminary data provided a foundational understanding of the learners' profiles and informed the design and interpretation of the subsequent intervention.

### **3 Survey questions after the post-test**

After completing the final survey, we assessed students' experiences and perceptions of using ChatGPT for academic writing based on four groups. The first group focuses on evaluating students' overall writing skills after using ChatGPT, examining improvements in grammar, vocabulary, coherence, and overall writing quality. The second group explores students' experiences with ChatGPT, including ease of use, challenges encountered, and perceived effectiveness in enhancing their writing. The third group investigates students' awareness of ChatGPT's impact on their learning, analyzing whether they view it as a beneficial tool or a potential limitation in their writing development. Finally, the fourth group provides a general evaluation, allowing students to reflect on their overall satisfaction and whether they would continue using ChatGPT for writing improvement in the future.

## **E. DISCUSSION OF THE RESEARCH QUESTIONS**

### **1 Can ChatGPT help first-year students enhance their English writing skills?**

The data on students' self-rated writing skills and areas of improvement provides compelling evidence that ChatGPT effectively enhances writing proficiency. Specifically, 50% of students reported improvement in vocabulary, addressing one of their most common initial difficulties, as 85% had previously struggled in this area. Grammar showed the highest gain, with 60% of students noting improvement, which is particularly significant considering that 80% had initially found grammar challenging. Additionally, 50% of students experienced improvement in sentence structure, and 30% reported better coherence in their writing. The strongest endorsement of ChatGPT's impact is the continued usage rate, with 85% of students indicating plans to keep using the tool, including 40% who are fully committed. Nonetheless, 30% of students reported difficulty in applying the suggestions provided by ChatGPT, highlighting a limitation in the tool's practical implementation despite its clear educational value..

### **2 Which aspects of ChatGPT (grammar correction, vocabulary suggestions, sentence structure improvements) are most beneficial for writing improvement?**

The data highlights the most beneficial aspects of ChatGPT in enhancing students' writing skills, with grammar correction emerging as the most valued feature—65% of students identified it as useful. This strong preference aligns with prior findings indicating that grammar was a major area of struggle for 80% of participants, suggesting that ChatGPT effectively targets this critical need. Vocabulary suggestions were rated as useful by 50% of students, reinforcing the tool's role in enriching lexical choices, which is especially relevant given that 85% of students initially reported difficulty in this area. Idea organization was selected by 40% of respondents, indicating a moderate appreciation for ChatGPT's support in

structuring content. While lower than grammar and vocabulary, this still reflects a meaningful contribution to improving writing coherence. Sentence structure improvements were rated useful by 30% of students, making it the least prioritized feature, yet still contributing to noticeable gains. Overall, the results reveal a consistent trend: students primarily value ChatGPT for its ability to address surface-level mechanics such as grammar and vocabulary, with structural and organizational improvements seen as secondary but still beneficial.

**3** Do students find ChatGPT helpful in their writing process, and how do they perceive its effectiveness?

The data presents a nuanced yet largely positive view of how students perceive ChatGPT's role in their writing process. A strong endorsement is evident, with 85% of students planning to continue using the tool, including a notably committed 40% who express definite intention to do so—indicating that many students find substantial value in its assistance. This high satisfaction aligns with findings on ChatGPT's most valued features: 65% of students rely on it for grammar support and 50% for vocabulary suggestions, both of which directly address common difficulties, as 80% had initially struggled with grammar and 85% with vocabulary.

By contrast, only 40% of students found idea organization to be useful, suggesting that while ChatGPT aids in structural guidance, its impact is less pronounced in this area compared to its linguistic support. Despite the overall positive reception, key limitations were also reported. A significant 65% of students indicated they had become overly dependent on the tool, 30% found it challenging to apply its suggestions effectively, and 25% occasionally struggled to understand its feedback. These issues may contribute to the divided opinions regarding ChatGPT's broader educational role. When asked whether it could replace teachers, responses were split: 40% agreed, 40% disagreed, and 20% were neutral. This polarization suggests that while students value ChatGPT for practical, real-time writing support, many remain skeptical of its ability to replace the deeper instructional role of educators.

## **F. CONCLUSION**

Our study explores the use of ChatGPT as a tool to enhance academic writing skills for first-year English majors. The findings demonstrate that, with structured guidance, students can utilize ChatGPT effectively to correct grammar, expand vocabulary, and improve the overall coherence and organization of their writing. After six weeks of continuous practice, students showed noticeable progress in organizing ideas, refining sentence structures, and developing a more sophisticated writing style.

In contrast to Jamshed's (2023) focus on surface-level improvements such as grammar and vocabulary, our study underscores ChatGPT's broader role in supporting higher-order writing competencies, particularly in idea development and structural coherence. While Jelson (2024) expressed concerns about students' overreliance on AI and the potential erosion of writing ownership, our findings suggest that when used as a collaborative aid, ChatGPT

enhances students' awareness of their writing strengths and weaknesses. This reflective process, in turn, fosters greater autonomy and critical thinking in academic writing.

A key contribution of this study lies in its step-by-step integration of ChatGPT into the curriculum, which allowed students to engage in iterative learning. This process not only helped students overcome common linguistic barriers but also developed their higher-order writing skills. The results highlight measurable improvements in core writing areas: 50% of students reported progress in grammar (compared to their initial 80% struggle rate), 60% improved vocabulary use (addressing a challenge initially reported by 85% of students), and 30% experienced better sentence structure. Additionally, 40% noted improved idea organization, while 50% reported enhancements in coherence and cohesion, suggesting that ChatGPT's feedback contributes to improved logical flow even when not explicitly prompted.

Furthermore, the tool's sustained impact is evident in students' ongoing engagement: 85% plan to continue using ChatGPT, with 40% expressing a definite intention to do so. However, challenges remain: 65% of students reported concerns about overdependence, 30% struggled to apply ChatGPT's feedback independently, and 25% occasionally found its suggestions unclear. These findings emphasize that while ChatGPT is a powerful support tool, it cannot fully replace traditional instruction or self-directed learning.

To optimize its use, we propose a three-part approach. First, ChatGPT should be integrated into writing instruction with clear guidelines that align its use with specific learning outcomes for example, grammar drills for accuracy, vocabulary expansion tasks, and outlining exercises to support structural clarity. Second, scaffolded practice sessions with teacher facilitation should help students critically evaluate and refine AI-generated suggestions, preserving the authenticity of their voice.

In short, ChatGPT proves highly effective in addressing the foundational writing challenges of first-year students, especially in grammar, vocabulary, and coherence. While it is not a comprehensive solution, its strategic use paired with teacher feedback and self-editing can significantly accelerate students' writing development.

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