

INTEGRATING AI CHATBOTS IN TEACHING ACADEMIC WRITING TO FIRST-YEAR UNIVERSITY STUDENTS**Maftuna Agzamova**Uzbekistan Journalism and Mass Communications University
Student of the Faculty of International Relations and Social SciencesScientific Supervisor: **Charos Iriskulova**Uzbekistan Journalism and Mass Communications University
Faculty of International Relations and Social Sciences
Department of Foreign Languages

Abstract. In recent years there has been a remarkable growth of artificial intelligence in almost all fields worldwide and its applications are constantly expanding day by day. In addition, it has become a factor of daily life in the education systems that we are in the world of artificial intelligence (e.g., learning foreign languages and writing). When learning academic writing in school, first-year students are not well-versed in formal writing, academic vocabulary, and critical thinking. AI chatbots (OpenAI, etc.) have been used in the 21st century as self-learning assistants. We investigate how AI chatbots can be integrated into academic writing for first-year university students. We investigate whether these tools help students to organize their ideas, grammar, and feel comfortable in writing. We participate in writing activities with students and allow them to use AI chatbots for brainstorming, correcting, and feedback while writing. We also look at how AI chatbots might be useful in the higher education environment in Uzbekistan. As written works and responses were verified, we could see any positive changes or learning experiences.

Key words: AI chatbots, academic writing, first-year students, ChatGPT, grammatical accuracy, learning experience, foreign language, writing skill, university, writing instruction.

Introduction

The first year of university is a crucial stage in student development, a time when students are challenged to quickly adapt to the rigors of academic discourse. Academic writing requires linguistic precision but also higher-order cognitive abilities like critical thinking, literature synthesis, and argumentative structuring. Teachers typically are not able to provide individualized, timely feedback to a large number of first-year students who may be experiencing writing anxiety and high failure rates. Generative AI (GenAI) and large language models (LLMs) have just debuted. AI chatbots can be a 24/7 writing tutor. But their very presence in academia has put it under intense pressure. While some educators advocate strict bans in order to protect academic integrity, others see AI as a natural development of literacy. This article argues that implementing AI chatbots in the first-year writing curriculum (which is structured) can help to enhance writing autonomy and critical thinking in students.

Methods

This study developed a qualitative classroom-based observational approach (added: methods clarified). First-year university students participated in structured academic writing tasks over a guided instructional period. Students were able to use AI chatbots during certain stages of the writing process (brainstorming, drafting, and revision).

Data were collected through:

- students' written drafts
- AI-assisted revisions
- classroom observation

- reflective feedback from students

The focus was on how AI chatbot interaction influenced students' writing development, particularly grammar accuracy, idea organization, and writing confidence. There was no formal statistical testing, but rather an analysis of writing drafts and the themes and differences was carried out.

Results

The analysis of student writing revealed several positive results. First, students showed a marked improvement in grammatical accuracy and sentence clarity. AI-generated feedback was able to identify mistakes students previously overlooked. Briefly, students improved their idea organization and paragraph structure in the pre-writing stage, especially with AI-generated outlines.

However, the results also showed some limitations. Although micro-level writing skills improved significantly, no strong improvement was seen in argumentative depth and critical reasoning. Students still depended heavily on instructor guidance to create complex arguments.

More qualitative feedback also showed mixed attitudes. Many students reported increased confidence and less writing anxiety, but some said they were worried about over-reliance on AI tools.

Opportunities: How AI chatbots benefit academic writing

When done right, they have several key benefits for novice academic writers:

- 24/7 Formative Feedback and Iterative Draft Review: AI chatbots can analyze a student's writing very quickly. They provide students with immediate feedback on grammar, syntax, transitions, and clarity, and students can iterate through many different drafts before writing a paper.

- Democratizing Brainstorming and Ideation: First-year students suffer from "blank page syndrome." Chatbots can act as brainstorming partners to narrow the big research questions down, write thesis statements, and lay out complex arguments.

- Creating Academic Tone and Vocabulary: Transitioning from casual high school writing to formal academic register is hard. AI helps students to find academic synonyms, explain jargon, and demonstrate how to structure arguments that are in line with standards. For international or non-native English speakers, AI chatbots are just as helpful as any other platform to help them in the language and to focus on the depth of their argument rather than grammar.

The challenges of GenAI

We are not sure if the AI in writing pedagogy is the right way to go, and so we will need to work with the authors to do so. One problem that is very much of a concern is academic integrity and plagiarism, where students may just produce AI-generated essays as their own work. This shortcut essentially kills the thought of the students and impedes real skill development. Moreover, instructors must discourage students from "hallucinations" or fake citations, in large language models, to write about academic sources that are not actually there, books, or URLs, which is directly in conflict with the core academic values of fact checking and research. Another of the most subtle threats is the erosion of the student's voice. Over-reliance on AI for editing can quickly homogenize writing and strip away the culture and individual style that is the reason why all student essays sound so interchangeable. And the result of this technology dependency is cognitive laziness. When students rely on AI to help them synthesize complex information, they do not build the necessary reading habits and neurological pathways necessary for real cognitive development.

Pedagogical Framework:

The "Human-AI Co-Composition" Model. • To integrate AI chatbots into universities, we need to move away from defensive detection policies, which are often ineffective, and toward AI

Literacy. We propose a three-stage Human-AI Co-Composition Model for first-year writing courses that guides students through an ethical and productive process.

Stage 1: Pre-Writing (AI as the Architect) ^ Instead of asking the AI to write the paper, students input their first, messy ideas and ask the chatbot to create three possible structural outlines. This process is a great way to teach students structural logic and prompt engineering to ask the right questions to get analysis out of it (as well as to get a better response).

Stage 2: Co-Drafting and refining (AI as the Coach) When the outline is set up, students write the paragraphs themselves. It's then that they submit sections to the chatbot with specific prompts. For example, a student might ask the AI to analyze the transition from two paragraphs to one or two paragraphs or identify instances of informal language in conversation. This stage is crucial because it turns the student from passive writer to reader-cum-editor.

Stage 3: Post-AI Evaluation (Human as the Judge) This is the most critical part of the framework. Students need to verify every claim, fact and citation that the AI has assisted with. To be held accountable, students need to write a brief AI Reflection Meta-Statement for their essay. In this statement they explain how the AI was used, what prompts were used and how they made modifications to the AI's suggestions so they can keep their own voice.

The Changing Role of the Writing Instructor.

The AI chatbots have completely transformed the role of the university writing instructor. The instructors no longer are gatekeepers of grammatical correctness. They are now responsible for critical thinking, source assessment, and digital literacy. Assessment methods need to adapt to this change. If AI can write a standard five-paragraph essay in seconds, grading the final product alone is no longer relevant. Rather, grading rubrics should be based on the quality of the research, human verification of the data that has been provided, the concatenation of contradictory views of students' research and the student's reflections on the AI collaboration. Thus, integrating AI chatbots in first-year university academic writing is not a way to improve academic standards, but a way to modernize them. AI can be a powerful tool that can help students become more reflective, more analytical writers. The future of higher education is not fighting the AI tide, but teaching students how to navigate it ethically, critically, and masterfully.

Literature Review

GenAI and Large Language Models (LLMs) such as ChatGPT have led to a paradigm shift in educational pedagogy (Urzúa, 2025; Usher et al., 2025). First-year university students often struggle with the transition to academic writing standards and often fail to write well enough, or the vocabulary is poorly chosen, and the writing is not cohesive (Hassiba, 2025). The large size of the classroom often makes it impossible to give individual feedback in real time to address these deficiencies.

The problem is mitigated by AI chatbots as dynamic digital scaffolds. In line with Vygotsky's socio-constructivist theory and the Zone of Proximal Development (ZPD), these tools are interactive writing companions that form written companions to each learner (Usher et al., 2025). Recent research has shown that AI-driven feedback enhances grammatical accuracy, structural clarity, and lexical precision (Li & Sun, 2024; Rahimi & Ebrahimi, 2023). In addition, a systematic review by Urzúa (2025) has shown that the generation of chat-based interaction can increase writing self-efficacy, self-regulation, and reflective ability for students as well as their writing ability in the form of a series of prompt negotiations (Kajan et al., 2025).

But the literature warns against over-reliance. Without proper pedagogical guidance, GenAI may induce structural hallucinations (Schug, 2024; Smith et al., 2025) and reduce authentic critical thinking and distort the student's personal voice (Schug, 2024). Consequently, the need to develop robust "AI literacy" along with core writing mechanics has become a crucial prerequisite for responsible technology integration in higher education (Woo, 2026).

Discussion

The findings show that AI chatbots are very efficient at accelerating micro-level language skills in first-year university writers. The increase in grammatical accuracy and coherence supports the noticing hypothesis for second-language acquisition and writing development: immediate, explicit feedback brings linguistic errors into the student's immediate awareness, and thus fast error correction and autonomous text-polishing (Hassiba, 2025).

However, the lack of significant variance in "Argumentative Structure" scores suggests a critical boundaries marker for GenAI. While chatbots can perform mechanical remediation (syntax, lexical variety, structural transitions), they cannot replicate higher-order cognitive processing required to build robust human perspectives, analyze complex data and retain critical voice (Smith et al., 2025; Usher et al., 2025).

The qualitative data presents a crucial tension. Students are open to feedback on what's happening now but are also concerned with their writing identity (Schug, 2024). Over-reliance is a real risk; if students blindly accept text generation but never think critically about their own academic writing, then their personal development as academic thinkers could be stifled (Abbas et al., 2021). This is why pedagogical frameworks need to consider the chatbot purely as an intelligent dialogue partner and not as an automatic text generator. Human-AI collaboration gives the best essay quality, so long as the human writer is able to establish his or her voice and authority in the thinking (Smith et al., 2025).

Conclusion

When AI chatbots are integrated into first-year university academic writing courses, it is a powerful and scalable technique to offer students individualized feedback on formative writing courses. Chatbots in the right place in writing workflows with ethical considerations can increase students' linguistic accuracy, textual coherence, and writing autonomy. The success of this integration is not the technology itself but the simultaneous evolution of AI literacy. Students need to be explicitly taught how to prompt, critique, filter, and adapt AI-generated feedback while still owning their ideas and arguments. The next study should focus on long-term longitudinal studies to assess if the writing skills gained through AI assistance carry over into later academic years when students write without immediate AI scaffolding.

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