



ARTIFICIAL INTELLIGENCE AND THE DEVELOPMENT OF CRITICAL THINKING IN ENGLISH ACADEMIC WRITING

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Abstract. The growing use of Artificial Intelligence (AI) in higher education has created new opportunities and challenges for developing students' critical thinking and academic writing skills. This study examines the potential role of AI tools in developing critical thinking through English academic writing. The study is based on a qualitative analysis of recent research on artificial intelligence, academic writing, critical thinking, and AI-assisted learning. The findings suggest that AI can support students in generating alternative perspectives, evaluating arguments, identifying weaknesses in their writing, and improving the organization of ideas. However, excessive dependence on AI-generated content may reduce students' independent reasoning and analytical engagement. Therefore, AI should be integrated into academic writing instruction through tasks that require students to question, evaluate, compare, justify, and revise AI-generated information. The study concludes that AI can contribute to the development of critical thinking when it is used as a tool for inquiry and reflection rather than as a substitute for students' intellectual work.

Keywords: *artificial intelligence, critical thinking, academic writing, English language teaching, generative AI, higher education, AI-assisted learning.*

Introduction. Critical thinking is an essential component of academic writing because university students are expected not only to present information but also to analyze evidence, evaluate different perspectives, construct logical arguments, and reach justified conclusions. In English academic writing, these



abilities are particularly important because students need to communicate their ideas clearly while following academic conventions. The rapid development of generative Artificial Intelligence has introduced new possibilities for supporting these processes. AI tools can generate alternative viewpoints, identify weaknesses in arguments, provide explanations, and offer feedback on written texts. However, the increasing availability of AI also raises concerns about students' dependence on automatically generated content and its possible influence on independent thinking.

The purpose of this study is to examine how Artificial Intelligence can be used to support the development of students' critical thinking through English academic writing. The study employs a qualitative methodological approach based on the analysis and synthesis of research concerning AI-assisted learning, critical thinking, and academic writing. Particular attention is given to the ways in which AI can be incorporated into activities requiring analysis, evaluation, comparison, justification, and reflection.

The findings indicate that AI can create valuable opportunities for developing critical thinking when students are required to interact critically with AI-generated information. For example, students can ask an AI system to present several arguments concerning a particular academic issue and then evaluate the strengths and weaknesses of each argument. They can identify unsupported claims, detect possible inaccuracies, compare AI-generated ideas with academic sources, and formulate their own conclusions. Such activities transform AI from a simple information-generation tool into an object of critical analysis. AI can also support critical thinking during the academic writing process. At the planning stage, students may use AI to generate alternative perspectives on a topic. They then select the most relevant ideas and justify their choices. During drafting, students can ask AI to identify weaknesses in their arguments without rewriting the text. During revision, they can compare their original ideas with AI



suggestions and decide which recommendations should be accepted or rejected. This process encourages students to take responsibility for their own academic decisions.

Another important application of AI is the development of argumentation skills. Students can provide their thesis statement to an AI tool and request potential counterarguments. They can then examine these counterarguments, search for supporting evidence, and strengthen their own position. This activity helps students understand that academic writing is not simply the presentation of personal opinions but a process of constructing and defending arguments based on evidence. Nevertheless, the findings also demonstrate several risks. When students rely excessively on AI to generate ideas, arguments, and complete essays, they may have fewer opportunities to practise independent reasoning. AI-generated information may also contain factual inaccuracies, unsupported claims, or inappropriate interpretations. Consequently, students need to develop AI literacy alongside critical thinking. They should learn to question AI-generated responses, verify information through reliable academic sources, and recognize the limitations of generative AI.

The teacher plays a central role in this process. Rather than preventing students from using AI, teachers can design activities that require critical interaction with AI-generated content. For example, students may be asked to identify three weaknesses in an AI-generated paragraph, verify its claims using academic sources, rewrite the argument, and explain the changes they have made. Such tasks combine language development, academic writing, information literacy, and critical thinking.

In conclusion, Artificial Intelligence has significant potential for supporting the development of critical thinking in English academic writing. Its greatest pedagogical value lies not in generating complete texts but in creating opportunities for students to analyze information, evaluate arguments, compare



perspectives, verify evidence, and reflect on their own decisions. Effective AI integration therefore requires teacher guidance, carefully designed writing tasks, academic source verification, and active student participation. When used in this way, AI can become a powerful educational tool for developing both academic writing competence and critical thinking.

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