#### Institute for Educational Research, Belgrade, Serbia

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# TOWARDS A MORE EQUITABLE EDUCATION: FROM RESEARCH TO CHANGE

#### **BOOK OF PROCEEDINGS**

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# CHATGPT AND ACADEMIC WRITING IN HIGHER EDUCATION<sup>1</sup>

#### Bojan Ljujić<sup>2</sup>, Jovan Miljković and Vukašin Grozdić

Institute of Pedagogy and Andragogy, Department of Pedagogy and Andragogy, Faculty of Philosophy, University of Belgrade, Belgrade, Serbia

#### Research Problem Background In Brief

The invention of ChatGPT constitutes the most significant stride in the field of artificial intelligence (AI) in recent years. It was launched in November 2022 as an open-source chatbot able to generate human-like texts while engaging in deep learning (Deng & Lin, 2022; Eke, 2023). Developed to impact every aspect of society (Zhai, 2023), ChatGPT has quickly become the subject of educational endeavors (Mhlanga, 2023b) as well as controversies, dividing the education community into dystopians and optimists (Mhlanga, 2023a; Sejnowski, 2023). The debate has focused on the issue of academic writing, offering different views on how this AI tool might influence phenomena such as intellectual property (Bjork, 2023; Hill-Yardin et al., 2023), plagiarism (Yu, 2023), authenticity, originality and creativity in learning (Rahman & Watanobe, 2023), and critical and analytical thinking (Mhlanga, 2023a; Rudolph et al., 2023, Shidiq, 2023). Namely, education actors should respect ethical principles (Eke, 2023) and incorporate them into the inevitable educational use of ChatGPT in order to uphold equity and responsibility in education (Cohen, 2023; A. A. Jadhav & A. N. Jadhav, 2023; Kasneci, 2023).

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<sup>2</sup> bojangljujic@gmail.com

#### Methodology

The present research focused on the dominant controversy surrounding the educational use of ChatGPT for the purpose of accomplishing academic writing tasks. The research goal was to investigate ChatGPT's performance in writing academic assignments and compare it to corresponding higher education students' performance. The descriptive research included the application of a comparative method and the content analysis research technique. Relevant data sources were: (1) pre-exam assignments written by final-year andragogy students at the University of Belgrade who received excellent grades and submitted their assignments in 2022, before ChatGPT was launched; (2) ChatGPT-generated essays. Both students and ChatGPT were tasked with writing an andragogical analysis of specific multimedia content. Units of qualitative comparative content analysis were derived from criteria for the assessment of the abovementioned pre-exam written assignments: grammar and fluency in expression; content structuration and organization; scientific relevancy; referencing; depth of knowledge and understanding; theoretical, research, and experiential foundations; argumentation and discussion; reflectiveness and critical positioning; and originality and creativity.

#### Results

ChatGPT possesses linguistic and semantic algorithms that enable automatic evaluation, correction, and feedback regarding grammar, vocabulary, and sentence composition adequacy (Yu, 2023). Hence, it generated essays that were largely correct in terms of grammar and expressional fluency and could be deemed slightly more precise compared to students' assignments. Although fairly structured and logically organized, ChatGPT-generated essays comprised rather elementary textual units (introduction, elaboration, and conclusion). Conversely, students' essays were more complex in structure, with more elements organized using different levels of headings, which clearly revealed ideas expounded in corresponding sections. Similarly, recent research results have indicated that ChatGPT essays lack structure and are poorly organized compared to those written by humans (Rudolph et al., 2023).

In ChatGPT-generated essays, andragogical scientific relevancy was evident, but it was quite general, random, superficial, unconvincing, wrongly indicative, and thematically inappropriate (Hill-Yardin et al., 2023), while the opposite was true for students' assignments. When prompted, ChatGPT was able to report the usage of certain references, but the accuracy, relevancy, and quality of citations seemed poorly contextualized (A. A. Jadhav & A. N. Jadhav, 2023; Zhai, 2023) compared to students' essays. ChatGPT offered general statements, simple presentations of information, and plenty of universalities poorly interconnected within knowledge networks, lacking demonstration of contextual understanding of implied ideas (Rudolph et al., 2023), while students' assignments were thoughtful, meaningful, and comprehensively relational in terms of connecting ideas in a complex manner. ChatGPT was unable to incorporate texts into comprehensive theoretical frameworks, find meaningful relations with relevant scientific studies (Hill-Yardin et al., 2023), and reflect on any kind of experience (Rudolph et al., 2023), contrary to students, who were distinctively successful in this domain. This clearly indicates that human intervention and interaction are irreplaceable in composing experiential written content (Rahman & Watanobe, 2023; Shidiq, 2023). Furthermore, ChatGPT offered inconclusive and unconvincing arguments and the discussion only provided an answer to the question of "What?", without answering "Why?" and "How?" (Hill-Yardin et al., 2023). Hence, ChatGPT-generated essays were predominantly descriptive and devoid of problematizing or polemicizing orientations, which were conspicuously present in students' assignments as a result of the engagement of human intellectual capacities.

ChatGPT-generated essays were uniform, brief, and limited in terms of composing reflective insights (Hill-Yardin et al., 2023) or critical observations (Rahman & Watanobe, 2023). Conversely, students' assignments featured complex ideas covering different aspects and potential relations within the given subject, with various demonstrations of critical attitudes, which gave their written accomplishments a more personal tone. Since ChatGPT-generated essays merely contained existing insights, observations, and reproductions of materials available online, they seemed unoriginal and lacked the distinctive creative or innovative elements observed in students' assignments. This was to be expected, as ChatGPT does not possess the human ability to engage creative, analytic, problem-solving, and collaborative skills (Mhlanga, 2023a; Rudolph et al., 2023; Shidiq, 2023) to produce innovative and unique written elaborations.

#### **Concluding Implications**

ChatGPT could reduce teachers' workload regarding instruction, assistance, and correction and it could support students in composing written assignments in a grammatical and fluent manner. However, it offers limited support in structuring and organizing a holistic essay (Rahman & Watanobe, 2023). ChatGPT-generated essays could serve as a starting point for further inquiry directed towards stronger scientific foundations in academic writing. However, teachers and students need to employ human capacities in instructing, learning, and higher-level thinking to reach an appreciable level of interconnection of information within knowledge systems enriched with genuine human understanding of internally influencing ideas. Cautious application of ChatGPT suggestions is needed to avoid inappropriate citations and poor contextualization (Mhlanga, 2023a), which could inspire experiential experimentation in instruction and learning processes (Rudolph et al., 2023). When using ChatGPT in academic writing, it is necessary to foster critical thinking skill development (Carvalho et al., 2022; Shidiq, 2023) in order to demonstrate conceptual and practical understanding of responsible positioning in relation to the issue of academic fairness (Eke, 2023). Thus, ChatGPTgenerated texts could exclusively be useful in highlighting convergent concepts from the diverse literature available online, which could be analyzed and encompassed within theoretical and research frameworks through human experiential instructional or nonlinear learning engagement. If not taken for granted, ChatGPT-generated ideas could inspire teachers and students to unleash their creativity in instruction and learning (Yu, 2023; Zhai, 2023) with the aim of permanently developing creative and problemsolving skills and producing original and innovative learning outcomes, particularly in the form of academic writing accomplishments (A. A. Jadhav & A. N. Jadhav, 2023) enriched with sustainable and practically applicable ideas.

Responsible use of ChatGPT should foster equity in education by minimizing time and space barriers, empowering learners in personal development regardless of their learning abilities (Cohen, 2023), making the learning process more individualized since educational topics could be critically observed, and obligating teachers to be au courant with technologies so they can overcome issues related to data protection, intellectual property, and a lack of activation in critical thinking development and engagement (Kasneci, 2023). As Bjork (2023) argues, ChatGPT is not particularly

friendly toward indigenous languages, while being highly cooperative with the English language. Furthermore, since the latest version of this AI tool (GPT-4) is not open-source, its availability is diminished by the economic factor, while some countries have completely banned the use of ChatGPT in the education system. Therefore, to achieve greater equity in education through the application of ChatGPT, the abovementioned disadvantages need to be properly addressed.

Keywords: ChatGPT, academic writing, higher education, andragogy students

#### References

- Bjork, C. (2023, April 5). *Don't fret about students using ChatGPT to cheat AI is a bigger threat to educational equality.* The Conversation. https://theconversation.com/dont-fret-about-students-using-chatgpt-to-cheat-ai-is-a-bigger-threat-to-educational-equality-202842
- Carvalho, L., Martinez-Maldonado, R., Tsai, Y. S., Markauskaite, L., & De Laat, M. (2022). How can we design for learning in an AI world? *Computers and Education: Artificial Intelligence*, *3*, 1–9. https://doi.org/10.1016/j.caeai.2022.100053
- Cohen, Z. (2023, January 17). Can Chat GPT Be the Key to Achieving Educational Equity? The Core Collaborative. https://thecorecollaborative.com/can-chat-gpt-be-the-key-to-achieving-educational-equity/
- Deng, J., & Lin, Y. (2022). The Benefits and Challenges of ChatGPT: An Overview. Frontiers in Computing and Intelligent Systems, 2(2), 81–83. https://doi.org/10.54097/fcis.v2i2.4465
- Eke, O. D. (2023). ChatGPT and the rise of generative AI: Threat to academic integrity? *Journal of Responsible Technology*, 13, 1–4. https://doi.org/10.1016/j.jrt.2023.100060
- Hill-Yardin, E. L., Hutchinson, M. R., Laycock, R., & Spencer, S. J. (2023). A Chat(GPT) about the future of scientific publishing. *Brain, Behavior, and Immunity*, *110*, 152–154. https://doi.org/10.1016/j.bbi.2023.02.022
- Jadhav, A. A., & Jadhav, A. N. (2023). A responsible use of Open AI ChatGPT in education. *Journal of Emerging Technologies and Innovative Research (JETIR)*, 10(3), 46–49. https://www.jetir.org/view?paper=JETIR2303609
- Kasneci, E. (2023, July 2). ChatGPT can lead to greater equity in education. Technical University of Munich. https://www.tum.de/en/news-and-events/all-news/press-releases/details/chatgpt-kann-zu-mehr-bildungsgerechtigkeit-fuehren
- Mhlanga, D. (2023a). Open AI in Education, the responsible and ethical use of ChatGPT towards lifelong learning. *SSRN Electronic Journal* (2023, February 11). http://dx.doi.org/10.2139/ssrn.4354422

- Mhlanga, D. (2023b). The Value of Open AI and Chat GPT for the Current Learning Environments and the Potential Future Uses. *SSRN Electronic Journal* (2023, May 5). https://dx.doi.org/10.2139/ssrn.4439267
- Rahman, M., & Watanobe, Y. (2023). ChatGPT for Education and Research: Opportunities, Threats, and Strategies. *Applied Sciences*, 13, 1–21. https://doi.org/10.3390/app13095783
- Rudolph, J., Tan, S., & Tan, S. (2023). ChatGPT: Bullshit spewer or the end of traditional assessments in higher education? *Journal of Applied Learning & Teaching*, 6(1), 342–363. https://doi.org/10.37074/jalt.2023.6.1.9
- Sejnowski, T. J. (2023). Large language models and the reverse turing test. *Neural Computation*, 35(3), 309–342. https://doi.org/10.1162/neco\_a\_01563
- Shidiq, M. (2023). The use of artificial intelligence-based ChatGPT and its challenges for the world of education: From the viewpoint of the development of creative writing skills. Proceeding of International Conference on Education, Society and Humanity, 1(1), 353—357. https://ejournal.unuja.ac.id/index.php/icesh/article/view/5614
- Yu, H. (2023). Reflection on whether Chat GPT should be banned by academia from the perspective of education and teaching. *Frontiers in Psychology*, 14, 1–12. https://doi.org/10.3389/fpsyg.2023.1181712
- Zhai, X. (2023). ChatGPT user experience: Implications for education. SSRN Electronic Journal (2023, January 4). https://dx.doi.org/10.2139/ssrn.4312418

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Nikoleta GUTVAJN

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Mladen RADULOVIĆ

Marija TRAJKOVIĆ

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