

EFFICIENCY OF USING ARTIFICIAL INTELLIGENCE TO ACADEMIC PERFORMANCE OF GRADE 11 HUMANITIES AND SOCIAL SCIENCES STUDENTS

ABSTRACT

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Gathering relevant and accurate information on a specific topic remains one of the most complex aspects of the learning process. In this context, Artificial Intelligence (AI) has emerged as a transformative tool in the education sector, offering a wide range of benefits and applications. Firuz Komalov's theory on the Multifaceted Impact of Artificial Intelligence in Education emphasizes AI's significant role in enhancing personalized learning, developing intelligent tutoring systems, automating assessments, and fostering teacher-student collaboration. These aspects illustrate the vast potential of AI to elevate the quality and efficiency of education. This study aims to assess the effectiveness of Artificial Intelligence in terms of problem-solving, decision-making, and overall productivity within educational settings. The researchers adopted a quota sampling technique alongside an evaluative-quantitative research design. A validated questionnaire was used as the primary data-gathering tool to collect responses from 133 Grade 11 Humanities and Social Sciences (HUMSS) students. The data were analyzed using various statistical treatments, including frequency and percentage distribution, ranking, and the computation of weighted means. The findings indicate that ChatGPT was the most commonly used AI application among students, with 25.44% (n=99) of respondents reporting its frequent use. The respondents strongly agreed on the effectiveness of Artificial Intelligence in enhancing key academic areas, as reflected in the weighted means: problem-solving (3.32), decision-making (3.34), and productivity (3.23). Despite these positive outcomes, students reported several challenges, including concerns related to safety and security, limited accessibility, and the inconsistent quality of information. To address these issues, the researchers developed a targeted action plan aimed at maximizing the efficiency of Artificial Intelligence by improving safety protocols, expanding access, and ensuring the delivery of high-quality, reliable information. The study concludes that Artificial Intelligence (AI) is highly effective and influential in enhancing students' problem-solving abilities, decision-making processes, and overall productivity. Despite these significant benefits, challenges such as data privacy, security risks, and accessibility issues were also highlighted. To mitigate these concerns, the researchers recommend that students practice responsible digital behavior, particularly in safeguarding their personal information. Furthermore, educational institutions should implement comprehensive programs aimed at promoting the ethical and secure use of AI tools, equipping students with the knowledge and skills necessary for safe and productive engagement with AI technologies.

RECOMMENDED CITATION

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