

Employing Generative Artificial Intelligence in Instructional Design Based on the ADDIE Model

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Abstract:

increasing use of this technology with its tools and applications in the field of educational design, especially its employment in technology-enhanced education, especially with the spread of the Covid pandemic and the increase in reliance on e-learning, there was a need to identify the effectiveness of employing one of the most important and famous image-generating AI techniques through Prompt orders for educational design based on the Addie education design model. The research aims to identify the methods, tools and effectiveness of employing generative AI in educational design. The importance of the research is due to highlighting the importance of employing generative AI with its techniques in educational design, analyzing its effectiveness and contributing to the development of designers' experiences. The research problem is to determine the possibility of using generative AI for images in educational design and how to employ it. The researchers followed the descriptive analytical approach to identify the techniques of generative AI as well as the practical experimental approach in designing models using generative AI to support the scientific and visual content of primary-level educational courses. The research concluded that generative AI has tremendous potential in educational design. Education designers can create more attractive and relevant educational experiences. However, it is necessary to measure the outputs according to the target educational category to ensure that the use of generative AI is compatible with educational goals, which differ for literary-style courses from scientific-style courses.

Keywords:

Generative AI- Instructional Design- Prompt Engineering- Machine Learning- Deep Learning- Technology- Enhanced learning (TEL)

References:

- 1- Artificial Intelligence Curricula from Kindergarten to Grade 12 AI -12K, United Nations Educational, Scientific and Cultural Organization (UNESCO), France, 2023. (in Arabic)
- 2- CHRIS GAMRAT, MEGAN KOHLER: The Multi-Disciplinary Instructional Designer Integrating Specialized Skills into Design Toolkits, Routledge, New York, 2023.
- 3- KRISTOPHER J. NEWBAUER, Aligning Instructional Design, ATD Press, United States of America, 2023.
- 4- Mauro Cazzaniga, Florence Jaumotte, Longji Li, Giovanni Melina: Gen-AI: Artificial Intelligence and the Future of Work, Pierre-Olivier Gourinchas, January 2024.
- 5- Pavlik, J. V. Collaborating with ChatGPT: Considering the implications of generative artificial intelligence for journalism and media education. Journalism & Mass Communication Educator, (2023).
- 6- Robin Bell1, Heather Bell2: Entrepreneurship education in the era of generative artificial intelligence,2023
- 7- Rose Luckin ,Karine George , Mutlu Cukurova: AI FOR SCHOOLTEACHERS, CRC PRESS , London, UK , 2021.

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