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DEVELOPMENT OF PROFESSIONAL COMPETENCE OF STUDENTS BY MEANS OF EDUCATIONAL PARADIGMS BASED ON ARTIFICIAL INTELLIGENCE AS A PEDAGOGICAL PROBLEM

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ABSTRACT: The integration of artificial intelligence (AI) into educational paradigms has become increasingly significant in enhancing the professional competence of students. This article explores the pedagogical implications and challenges associated with the use of AI in developing professional competencies. It discusses the theoretical foundations of AI-based educational paradigms, the role of AI in personalized learning, and the potential barriers to effective implementation. The article concludes with recommendations for educators and policymakers to optimize AI's role in fostering professional competence in students.

KEYWORDS: Artificial intelligence, professional competence, educational paradigms, personalized learning, pedagogical challenges.

INTRODUCTION

The rapid advancement of artificial intelligence (AI) technology has transformed various sectors, including education. As AI continues to evolve, its potential to influence the development of professional competence in students has garnered significant attention. Professional competence, defined as the combination of skills, knowledge, and attitudes necessary for effective professional performance, is a critical objective in modern education. This article investigates the role of AI in educational paradigms and its impact on developing students' professional competence, highlighting the pedagogical challenges that arise.

AI-based educational paradigms are grounded in the principles of personalized learning, adaptive learning technologies, and data-driven decision-making. These paradigms utilize AI algorithms to analyze vast amounts of educational data, enabling the customization of learning experiences to meet individual student needs. AI systems can identify students' strengths and weaknesses, recommend appropriate learning resources, and provide real-time feedback, thus facilitating the development of professional competence.

AI has the potential to significantly enhance the development of professional competence by offering personalized learning pathways, simulating real-world professional scenarios, and providing continuous assessment and feedback. Through AI-driven platforms, students can engage in interactive learning experiences that mirror professional environments, allowing them to apply theoretical knowledge in practical settings. Moreover, AI can support the development

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of soft skills, such as communication and teamwork, by facilitating virtual collaborations and providing insights into group dynamics.

Despite its potential, the integration of AI into educational paradigms presents several pedagogical challenges. One of the primary concerns is the potential for AI to perpetuate biases present in the data it processes, leading to unequal learning opportunities. Additionally, the reliance on AI may result in the de-emphasis of human interaction in the learning process, which is crucial for the development of certain professional competencies. Furthermore, there is a need for educators to develop new skills and competencies to effectively incorporate AI into their teaching practices, which may require significant professional development.

The use of AI in education also raises ethical concerns related to privacy, data security, and the potential for algorithmic bias. Ensuring that AI systems are transparent, fair, and accountable is essential to prevent the marginalization of certain student groups and to maintain trust in AI-driven educational tools. Additionally, educators and institutions must address the ethical implications of AI in professional competence development, particularly concerning the autonomy of learners and the role of human judgment in educational decision-making.

To maximize the benefits of AI in developing professional competence, educators and policymakers must adopt a balanced approach that leverages the strengths of AI while addressing its limitations. This includes investing in the development of AI literacy among educators, promoting interdisciplinary collaboration between AI specialists and educators, and establishing guidelines for the ethical use of AI in education. Additionally, ongoing research is needed to evaluate the effectiveness of AI-based educational paradigms in different contexts and to identify best practices for their implementation.

CONCLUSION

The development of professional competence in students is a critical goal of modern education, and AI offers promising opportunities to enhance this process. However, the successful integration of AI into educational paradigms requires careful consideration of the pedagogical challenges and ethical implications involved. By adopting a thoughtful and informed approach, educators and policymakers can harness the potential of AI to develop professional competence in students, preparing them for the demands of the modern workforce.

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