FROM *the guest*
EDITOR

Artificial Intelligence in Special Education Teacher Preparation

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This *Journal of Special Education Preparation* special issue is dedicated to using artificial intelligence (AI) in special education teacher education. As guest editor, I'd like to acknowledge that the proverbial genie is out of the bottle when it comes to AI in education, and we hope that the articles in this issue will serve as a guide to special education teacher preparation programs. The eight articles in this issue identify AI's great potential to be a game-changing tool for special educators, the students, the families they serve, and the future of our nation's workforce. Cautionary caveats are also provided that we, as researchers and educators, must heed.

The AI Evolution in Teacher Education: Embracing Innovation for Special Education

Goldman et al. help set the theoretical stage for integrating AI within special education teacher preparation through the lens of technological, pedagogical, and content knowledge (TPCK). In their articles, Dieker et al., Holman et al., Kaczorowski et al., Mosher et al., Johnston et al., and McMahon & Firestone all discuss how the landscape of education is rapidly transforming, driven by the relentless march of AI. This shift is a technological revolution and a profound opportunity to enhance teaching and learning, particularly in special education. As AI text generators like ChatGPT and Copilot become ubiquitous, we must rethink our approaches to teacher preparation and classroom practices. Now is the time for us also to understand how the use of AI in teacher preparation can help us recalibrate our focus on the truly human skills involved in teaching vs. those that can be augmented by technological assistance.

Mosher et al. and Kaczorowski et al. remind us that while AI is not new, its recent advancements and applications have garnered significant attention in teacher education. Reviewing past uses of AI and introducing adaptable tools can help teacher education programs stay ahead of the curve. By highlighting AI tools currently beneficial for teachers and struggling students and projecting future developments, educators can better prepare for integrating AI into their teaching methodologies.

Reimagining Assignments and Activities

AI text generators offer robust functionality, from crafting written content to debugging code and improving communication skills. Their widespread use among college students signals a need for educators, especially those in preservice special education programs, to reassess the impact of these tools. All authors in this special issue discuss how instructors in educator preparation programs (EPPs) can foster a balanced environment that leverages AI's strengths as a tool for universal design and access while intentionally integrating or restricting AI in course assignments, maintaining academic integrity, and promoting critical thinking.

Jimenez et al. delve into AI's transformative potential, which is particularly evident in the education of students with moderate to severe intellectual disabilities (M/SID). Despite the importance of evidence-based practices (EBPs), educators often need help with practical implementation. AI can bridge this gap by supporting the application of EBPs, enhancing teacher fluency, and ensuring consistent practice. Higher education faculty play a crucial role in preparing educators to harness AI by

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modeling best practices, thus promoting the use of AI tools as part of inclusive pedagogy and improving learning outcomes for students with M/SID.

The Rise of AI Virtual Agents

The rise of AI tools offers promise and challenge in increasingly complex classroom settings. Dieker et al. discuss how virtual agents, developed with input from administrators, educators, and computer scientists, showcase the potential of AI to enhance student learning and support teachers. These agents, equipped with biometrics and facial emotional recognition, help manage classroom activities and support students' emotional regulation. By understanding the development and application of these AI agents, teacher preparation programs can envision a future where AI seamlessly integrates into instructional practices, providing real-time support and feedback.

Remixing Existing Practices with AI

McMahon & Firestone present engaging and practical methods of helping educators to "remix" evidence-based and high-leverage practices they are already familiar with, including the new capabilities of AI. Transformational new technologies, such as AI, are powerful and disruptive, impacting multiple areas of society, including education. One of the best ways to implement AI in teaching is to support and extend current practices (Mishra et al., 2023). Similar to how a new remix on the radio can make an old favorite song fresh again, educators can use AI to support and enhance their instructional strategies and skills. However, adapting to this new paradigm of AI in education may be challenging for teacher preparation programs in special education.

Drawing on strategies from "Leveraging Emerging Technology to Design an Inclusive Future with Universal Design for Learning" (McMahon & Walker, 2019), this article provides a foundation for applying AI tools to support current practice. Based on Universal Design for Learning (UDL), the strategies aim to adapt AI tools to support high-leverage and established evidence-based practices. The goal is to inspire special educators to use AI to "remix" and innovate their instructional strategies.

Integrating AI-Powered Personalized Learning

Holman et al. present compelling evidence for integrating Artificial Intelligence-Powered Personalized Learning (AI-PPL) in special education, representing a shift toward tailoring educational experiences to meet the unique needs of preservice teachers and students with disabilities. Their paper explores the implementation of AI-PPL tools in preservice teacher preparation programs, highlighting their potential to customize learning experiences, provide adaptive feedback, and enhance engagement through interactive content. A review of current AI-PPL functionalities, such as adaptive learning environments and customized feedback mechanisms, demonstrates how AI-PPL can impact teaching practices and student learning outcomes. Critical attributes for successful AI-PPL integration include ensuring accessibility and inclusivity calling for further professional development to enhance educator competency and skills. By presenting real-world examples and guiding questions for extraordinary education faculty, this paper offers practical insights for educators and faculty members to effectively navigate the complexities of adopting AI technologies in teacher preparation programs.

Conclusion

Integrating AI in special education preparation is not just about adopting new tools but fundamentally rethinking how we prepare teachers and support students, especially those with special needs. By embracing AI's potential and carefully considering its application, we can enhance the educational experience, making it more inclusive, effective, and adaptive to the needs of all learners. As we navigate this exciting frontier, collaboration among educators, researchers, and technologists will be vital to unlocking AI's full educational potential.

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