Intellectual Production #2: Annotated Bibliography

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Alabdulakareem, E., & Jamjoom, M. (2020). Computer-assisted learning for improving ADHD individuals' executive functions through gamified interventions: A Review. *Entertainment Computing*, *33*, 100341. https://doi.org/10.1016/j.entcom.2020.100341

KEY FINDINGS

The research highlights the effectiveness of Computer-Assisted Learning (CAL) and Serious Games (SG) in supporting individuals with ADHD. The research shows that SGs, incorporating advanced techniques and technologies like augmented reality (AR), positively impacted the executive functions (EF) and attitudes of its participants. While acknowledging positive outcomes, the research calls for further investigation and an interdisciplinary approach involving educators, designers, programmers, therapists, and parents to develop tailored SGs. In addition, the study also emphasizes the need for informed involvement to address limitations and potential risks associated with excessive gaming.

RESEARCH METHOD/APPROACH

The research methodology includes an extensive literature review, where key concepts are meticulously defined to suit the research's context. Moreover, the published research not only employs chart formats to visually present basic concepts, offering a clear and concise understanding of its findings but also enhances its credibility by utilizing scholarly search engines and targeted keyword searches, contributing to the overall robustness of its comprehensive approach.

CRITICAL EVALUATION

The research thoroughly explores CAL and SGs for ADHD individuals with methodological clarity and credibility. Its strengths include a multifaceted approach, incorporating in-depth

analysis and visual aids for better understanding. Moreover, the study recognizes certain research limitations, including the lack of gender comparisons and the absence of discussion on the impacts of multiple players. Also, the study underscores the necessity for further investigation and an interdisciplinary approach in the complex development of ADHD interventions, serving as a valuable foundation for future research. In summary, this research significantly contributes to the existing knowledge by providing a comprehensive exploration of CAL and SGs for individuals with ADHD, making it a valuable resource for educators, researchers, and practitioners in the field.

STANČIN, K., HOIĆ-BOŽIĆ, N., & SKOČIĆ MIHIĆ, S. (2020). Using digital game-based learning for students with intellectual disabilities – A systematic literature review. *Informatics in Education*, 323–341. https://doi.org/10.15388/infedu.2020.15

KEY FINDINGS

The systematic review of 21 studies on digital game-based learning (DGBL) for intellectual disabilities revealed positive impacts. The research indicates that games improved exploration and comprehension, effectively addressing deficiencies in reasoning and adaptive functioning. Furthermore, the study revealed that digital games contribute to learning, the enhancement of skills, and the development of life skills, predominantly through the utilization of Serious Games (SG) and Educational Games (EG) on personal computers and tablets. The limitations addressed involve limited database access and potential variations in interpretation. Additionally, the research underscores the importance of future studies investigating socio-emotional skills and suggesting a framework for evaluating educational game solutions through Design-based Research (DBR).

METHODOLOGY

This research employs a systematic literature review to investigate DGBL for learners with intellectual disabilities. Key aspects included defining four research questions, applying inclusion/exclusion criteria, and using keyword queries to select 21 research papers for analysis. The analysis explores technologies used, skills addressed, participant characteristics, testing methods, and the overall impact of DGBL.

CRITICAL EVALUATION

The research on DGBL for learners with intellectual disabilities demonstrates a systematic methodology, clear questions, and awareness of limitations. Moreover, inclusive criteria enhance

precision, and insightful recommendations for future research highlight its potential contributions. In summary, this study lays a robust foundation, identifies key areas for exploration, and suggests methodologies for future studies in DGBL for learners with intellectual disabilities, serving as a valuable starting point for ongoing advancement in this field.