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TECHNOLOGICAL INNOVATION AND SUSTAINABILITY PRACTICE IN THE EDUCATION SECTOR: A REVIEW OF ONLINE LEARNING AND GAMIFICATION STRATEGIES FOR ENHANCING STUDENT ENGAGEMENT AND LEARNING OUTCOMES

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Abstract

This paper delves into the dynamic realms of online learning and gamification, pivotal innovations within the education sector, and aims to foster sustainability practices and improve student engagement and learning outcomes. It embarks on a comprehensive journey through the literature, meticulously examining the definitions, merits, obstacles, and exemplars of these transformative approaches. Online learning, encompassing the digital delivery of educational content via diverse platforms such as websites, mobile apps, and learning management systems, has emerged as a prime player in reshaping pedagogical landscapes. Simultaneously, gamification, hinging on the strategic infusion of game elements such as points, badges, leaderboards, and feedback into educational contexts, emerges as a potent motivator and engagement catalyst. However, this paper also casts a discerning eye on the hurdles and constraints that accompany adopting these methodologies. By synthesizing the collective wisdom of prior research, this paper unveils the novel possibilities and improvements that online learning and gamification bring to education, elucidating their role in advancing sustainability goals and enhancing the educational experience. The synthesis of existing knowledge leads to the formulation of valuable recommendations tailored to educators and researchers aspiring to integrate online learning and gamification strategies into their pedagogical toolbox, invigorating learning environments and propelling education toward a more sustainable and engaging future.

Keywords: online learning, gamification, sustainability practices, student engagement, learning outcomes

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