Editorial

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This IJSG issue features ten regular papers, that are briefly introduced below.

"Children learn that material hardness is linked to atoms and bonds by playing a game: a case study", by Dumin et al. [1], investigated whether primary school children who have not had formal lessons about atoms, can explain the hardness of materials using concepts of atoms and bonds after playing a specifically designed, cooperative resource management game. The authors argue that their findings support that games can ignite the formation of abstract but fundamental science concepts in children's thinking..

"Gamification and Eco-Literacy: A Bibliometric Analysis of Research Trends", by P.J. Aguilar-Cruz, E. J. Olaya-Marín [2], bibliometric analysis is to investigate research trends, key contributions, and thematic developments in the application of gamification for promoting eco-literacy from 2018 to 2024. The findings reveal a growing academic interest in the topic, with an increasing number of publications and the emergence of dominant themes such as sustainability education, serious games, and digital learning tools.

"The Influence of Visual Recognition and Preference in Serious Games: A Pilot Study in Nepal", by Bai et al. [3], examines how varying levels of fidelity affect players' visual recognition, visual preference, and overall experience in serious gaming, using a mixed-method case study in the Bhaktapur district, Kathmandu, Nepal. The authors found that higher fidelity led to more positive affect, better recognition, stronger preference, higher familiarity, and positive emotional response from players.

"Turning Play into Progress: Unveiling the Effect of Gamified VR on Learning Through Meta-Analysis", by Zhang and Yu [4], utilized a meta-analytical approach to study the multifaceted impact of gamified VR on various dimensions. The authors suggest that future gamified VR activities should align game design with learning objectives, streamline interfaces, break tasks into manageable segments, provide immediate instructions and clear scaffolding, and balance challenges with skill levels to minimize learners' cognitive load and enhance learning effectiveness.

"Safe Walk: A Serious Game for Exploring Environmental Distractions Affecting Pedestrian Safety", by Sekhavat et al. [5], investigates how urban video advertisements influence pedestrian behavior amidst competing visual stimuli. Their findings reveal a significant preference for monitoring vehicular traffic over video advertisements, confirming that participants prioritize safe navigation over engaging with distractions.

"Serious Games for English Language Learning: A scoping review", by Patrocinio-Braz and Martín-del-Pozo [6], investigates the literature on the use of serious games for English language learning, focusing the research questions on the evolution of publications and their impact, the most productive authors and journals in terms of the number of publications, and the specific topics addressed. The authors highlight the need for better scientific focus on writing and oral interaction skills.

"GeoBlocks: A Game-Based Approach for Teaching Geometry in Primary Education", by Serrano-Baena et al. [7], introduces GeoBlocks, an innovative educational project inspired by the game Tetris, designed to support the development of geometric reasoning and mathematical skills among Primary Education students aged 10 to 12. GeoBlocks integrates classic game mechanics with hands-on learning strategies. According to the authors, the results provide preliminary insights into the possible benefits of GBL in Geometry education.

"Impact of a Serious Board Game on the Academic Performance of Future Physical Education Teachers", by Sotoca-Orgaz et al. [8], evaluates the impact of *Docentis*, a board game created for undergraduates pursuing Primary Education teaching degrees. The authors argue that their findings show the suitability of this board game for training future Physical Education teachers, promoting meaningful learning experiences that bridge theory and practice through the simulation of professional contexts.

"Enhanced Gaze-Controller System for 2D Platform Game Using Finite State Machines", by Sami Marzook Alesawi [9], develops and evaluates a gaze-based control system for 2D platform games, addressing the need for more inclusive gaming experiences. Through extensive playtesting with 34 participants, the authors findings propose the feasibility of the proposed system, indicating that it allows for intuitive and smooth control of game characters.

"Latent Class Analysis of Gameplay Metrics from Youth Playing a Robotics Game", by Scheier et al. [10], used latent class analysis with seven game metric indicators from a robotics game to ascertain whether there are distinct patterns of gameplay. Findings are discussed in terms of ways game developers can utilize game metrics to improve robotics game design and enhance game mechanics.

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