Evaluating Key Attributes of Effective Digital Games in Tertiary Education

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Abstract : A major problem in educational digital game design is that game developers are often focused on maintaining the fun and playability of an educational game, whereas educators are more concerned with the learning aspect of the game rather than its entertaining characteristics. There is a clear need to understand what key aspects of digital learning games make them an effective learning medium in tertiary education. Through a systematic literature review and content analysis, this paper identifies, evaluates, and summarizes twenty-three key attributes of digital games used in tertiary education and presents a summary digital game-based learning (DGBL) model for designing and evaluating an educational digital game of any genre that promotes effective learning in tertiary education. The proposed solution overcomes limitations of previously designed models for digital game evaluation, such as a small number of game attributes considered or applicability to a specific genre of digital games. The proposed DGBL model can be used to assist game designers and educators with creating effective and engaging educational digital games for the tertiary education curriculum.