

The role of gamification and game-based learning in authentic assessment within virtual environments

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Gamification is the application of game-based elements to non-game systems. Within education this can incorporate many game-based mechanisms. We review the use of some of these specifically: rewind, ghost images, save points and multiple lives, and time and space control. The opportunities to use these game-based mechanisms to assist assessment have remained under-examined and under-exploited. However, these game-based elements are particularly pertinent within authentic learning supported by virtual environments. Thus, we identify how these game-based mechanisms can improve assessment while increasing efficiency and providing new opportunities for educators.