Immersion Virtual Reality Serious Games
Studies in Education: A Brief Review

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Abstract

Currently, immersive virtual reality environments (IVR) are providing interactive learning experiences in various fields including “education”. Especially after covid-19 pandemic, the popularity of the online learning environment has increased, and the IVR would be a possible alternative to other mediums in online learning. However, there is a need to better understand the current body of knowledge on IVR. To clarify this question a literature review was conducted between 2013-2023 years on the “Web of Science” database for “IVR” and “serious games” keywords in the field of “education”. Then, 18 articles are reviewed and the main themes are provided. As a result, the majority of the articles were found as “applied studies” and the main theme was “cognitive effects” including knowledge improvement. Depending on literature analyses, qualitative and quantitative study results; “IVR and serious games” in general were found and perceived as effective mediums in various fields of education. In addition, some instructional design decisions and the effectiveness of different mediums are provided.

Keywords: Game effectiveness, Game-based learning, Immersive virtual reality, Literature review, Serious games