

Immersive Virtual Reality: Gaming as an Alleviating Experience

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Abstract

Prior research has indicated that virtual reality can be used as a therapeutic tool. This study sought to evaluate the therapeutic benefits of virtual reality. Participants were 79 Missouri Southern State University students (43 females, 30 males, 2 unknown; mean age of 24.4) recruited from psychology courses. Participants were exposed to a mildly stressful situation consisting of solving two unsolvable math problems. Participants then reported their affect levels with the Positive And Negative Affect Questionnaire Schedule (PANAS) before and after being exposed to either a virtual reality experience or a video along with 7-8 follow-up questions. A virtual reality experience was predicted to decrease negative affect and boost positive affect greater than a video experience. Analyses determined a main effect of positive affect, with higher levels of positive affect in the post-test than the pre-test. The interaction between condition and positive affect was also significant. The virtual reality condition had higher positive affect in the post-test than in the pretest. The main effect for negative affect was also significant. However, there was not a significant interaction between negative affect and condition. Results supported the hypothesis in that the virtual reality condition had higher levels of positive affect. Lower negative affect levels were not significantly different between conditions. Future research could apply the experiment to a situation-specific anxiety event (e.g. exam) or add a control condition. This research could be used in the clinical setting (e.g. treat anxiety) and by virtual reality developers to create therapeutically focused games.