

Biofeedback Game Design

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This project aims to explore the psychological effect of the player during gaming and how reciprocally game designers can manipulate the sensations of the player through biofeedback information (physiological sensors) and implementation of certain game mechanics.

In an initial phase, the objective of the project is to study the physical and psychological response of the participants to different visual and sound stimuli using the simulation of a digital space modeled in 3D, with verisimilar textures of real environments and that can be interacted in VR.

As a case study, we present an immersive simulation game (VR) where the game mechanics change, according to the various signals received from the participant and the results of a large focus group of university Ba and Ma students.

We will use BiosignalsPlux devices, the Unity graphics engine, Oculus VR Kit and Leap Motion tools to validate the study and the future work for an game that could be studied in the field of games and psychology.

Keywords: Game; Simulation; Psychology; VR.