Gamification of Visual Scan Training as a Treatment for Visuospatial Neglect: An Evaluation of Therapists' User Experience in Virtual and Augmented Reality Environments

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Objective. At the moment, several mixed reality versions of Visual Scan Training (VST) are being developed. The aim of this study was to explore the opinions of therapists on the use of VR and AR in VSN treatment. *Methods.* Therapists played one VR and two AR Serious Games, and subsequently filled out a questionnaire on User Experience, Usability and Implementation. *Results.* Sixteen therapists (psychologists, occupational, speech, and physical therapists) played the games, thirteen of them evaluated the games. Therapists saw great potential in all three games, yet there was room for improvement on the level of usability, especially for tailoring the games to the patient's needs. User experience was comparable between VR and AR Serious Games. For implementation, therapists stressed the urgency of clear guidelines and instructions. *Discussion.* Even though VR/AR technology is promising for VSN treatment, there is no one-size-fits-all applicability. It may thus be crucial to move towards a plethora of training environments rather than a single standardized mixed reality neglect treatment. As therapists see the potential value of mixed reality, it remains important to investigate the efficacy of AR and VR training tools.

Keywords: Visuospatial Neglect, Visual scanning training, Intervention, Virtual Reality, Augmented Reality, Qualitative Data