THE ROLE OF IMMERSIVE TENDENCY IN VIRTUAL LEARNING ENVIRONMENTS

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Abstract

Previous research has shown that explaining is an effective way of learning. Since distance education faces new challenges and virtual reality technologies are getting more accessible, we investigated the educational outcome of teaching an avatar in virtual reality environments (VE). Participants in the present study (n = 67) were instructed to explain a topic to an avatar. One group fulfilled the task in a VE wearing a head mounted display, whereas the other group performed the task in front of a laptop. Measures for presence and immersive tendency as personality trait were assessed. Analysis showed improved performance at a subsequent test after explaining in the VE, but only when immersive tendency was high. In contrast, no such interaction was found in the laptop condition. When it comes to presence, participants in the virtual reality condition reported higher presence. However, the experience of presence did not influence the learning output. The results highlight the moderating role of immersive tendency as personality trait in VE and more generally the importance of considering individual differences in virtual learning environments.

Keywords: VLEs, immersive tendency, individual factors, presence.