

Game-Based Collaborative Learning in a Virtual World Environment: Master's-Degree Students' Perceptions of their Learning Experience (Poster)

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**למידה שיתופית מבוססת משחק בעולם הווירטואלי:
תפיסות הסטודנטים לתואר שני את חוויות הלמידה
(פוסטר)**

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Abstract

This paper discusses the learning experiences of graduate students who engaged in a competitive game-based activity within a 3D virtual world (VW). VWs are learning platforms that present digital simulation of people, environments, content, and activities. Users are represented by avatars who can write, speak, walk, and fly (Shonfeld & Kritz, 2013). VWs provide new opportunities for learning including performative, experiential, immersive, collaborative, and game-based learning (Warburton, 2009), usually unavailable in asynchronous and synchronous learning environments offered by traditional learning-management systems (Shonfeld, Resta, 2019). They offer many advantages such as enhancing student motivation and engagement, facilitating collaboration, and providing learning opportunities unavailable in other learning environments (Resta & Shonfeld, 2016). In addition, synchronous communication and the spatial dimension contribute to the feeling of interactivity (Gallego et al., 2016; Hoter & Yazbak Abu Ahmad, 2018; Merchant et al., 2014). VWs have unique attributes that increase a sense of self as a learner and creator; induce a sense of social presence; and encourage self-presentation, disclosure, engagement, and immersion, (Ghanbarzadeh & Ghapanchi, 2018;). Rayner and Fluck (2014) and Badiee and Kaufman (2014) claim that teacher-education programs should employ technological innovations such as simulations to better prepare teachers for 21st-century classrooms. Participants in virtual communities reported greater learning about diversity concepts, issues, and experiences than in-class participants. The virtual communities offered students a sense of freedom (Lee, 2014).

The purpose of this activity was to expose the participants to a virtual world (Second Life), allow them to develop their insights regarding the pedagogical potential of this environment (advantages and challenges), experience what immersive learning means, engage in collaborative learning and reflect on it, and, finally, think about the relevance of such activities for their teaching practices. Graduate students from two teacher-education colleges in Israel participated in this project. Divided into small groups of five students each, they learned to design learning tasks

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based on visiting real locations (historical, cultural, scientific) recreated in the virtual world. For a culminating experience, the groups competed complete the tasks of all the groups. The competition was followed by the participants discussing their experience and their feelings about the educational potential of virtual worlds. The students' motivation to learn was impressively high. We examined their perceptions and attitudes regarding the educational value of such learning as well as the advantages and challenges in implementing this approach in their teaching.

Keywords: 3D Virtual World, Collaboration, Competition.

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