Chapter 11

Foreign Language Teaching Practices in 3D Multi–User Virtual Immersive Learning Environments

Muhammet Demirbilek
Suleyman Demirel University, Turkey

Vaida Kazlauskaite Siauciune
Panevezys District Velzys Gymnasium, Lithuania

ABSTRACT

3D multi-user virtual environments (MUVE) bring new opportunities to foreign language teaching and learning as a platform for teaching practices. Due to immersive and interactive nature of 3D MUVE, these tools have gained popularity in the field of foreign language learning and teaching. The power of virtual learning environments lies in creating immersive 3-D spaces that give users a sense of learning by doing. Moreover, the environment is interactive and is much the same as real world interaction. MUVE provides strong support for synchronous collaborations, interactions, and immersive environments for experiential and constructivist learning settings. Some key features of the virtual worlds comprise the ability to construct 3D environments that simulate real world situations, as well as the ability to have a virtual identity to create a cross-cultural self and the ability to have participants from around the world acting virtually in designated roles that convey new types of learning within this environment.

INTRODUCTION

Improved information and communication technologies have led educational institutions to seek innovative ways to take the traditional classroom online (Ericson & Siau, 2003). What is more, these institutions and educators are attracted by the potential of using simulated virtual worlds as environments for foreign language teaching and learning (Zheng & Newgarden, 2012).

Concerning these innovations, three-dimensional simulated virtual learning environments have recently increased in popularity among the educational institutions not only because they allow learners to represent themselves as avatars, but also for the reason that 3D virtual worlds are computer-simulated and networked spaces that resemble the real world in rules, ability to roam, distance and gravity (Vickers, 2010). Therefore, educators were not only attracted by the possibility to give learners a strong sense of "being there" (Warburton, 2009) but also to allow them to interact with multiple users, through pseudo-physical contact, similar to real-world situations. What is more, these spaces create a possibility to simulate physical movement within the learning environment and to position themselves and objects within the 3D virtual space (Petrakou, 2010).

MUVE is showing particular promise in stimulating experiences in foreign language learning. To begin with, it has the features of simulated scenarios, i.e. it offers real-time immersive interactions between students and instructors within 3D spaces.

Moreover, MUVEs enable learners to access virtual contexts, interact with digital artifacts, represent themselves through "avatars," communicate with other learners and with computer-based agents, and enact collaborative learning activities of various types (Ketelhut, Nelson, Clarke, & Dede, 2010).

Today, foreign language learners are faced with a pragmatic revolution of digital technologies in the way foreign languages can be acquired and in the way learners feel immersed in authentic nature of three-dimensional (3D) cyber infrastructures. Multi-user virtual environment (MUVE) is a 3D simulated and graphically rich, multi-layered virtual space in which multiple users are represented by avatars. Users' senses of actually being present, text, voice, video communication, free movement in graphical space are the basic features of the MUVE. The 3D feature of MUVE adds a sense of location and real-time social interaction (Kennedy-Clark, & Thompson, 2013b).

3D MUVE platforms have the revolutionary potential as an interactive, situated and immersive learning environment where students can visit online relevant locations and meet with others for voice or text conversations. The power of virtual learning environments lies in creating immersive 3-D spaces that give users a sense of learning by doing due to the fact that it can allow for human behavior much the same as real world interaction. Therefore, MUVE offers social as well as immersive experiences and creative activities for learning.

It is necessary to mention, that MUVEs have been used in education for creating online communities for pre-service teacher training and in-service professional development as well as for engaging science-based activities while promoting socially responsive behavior (Kafai, 2006). They have been used to help students understand and experience history by immersing them emotionally and politically in a historical context (Squire & Jenkins, 2003), for promoting social and moral development via cultures of enrichment (Zheng & Newgarden, 2012) and for providing an environment for programming and collaboration. They have also been used for engaging in scientific inquiry (Ketelhut, Nelson, Clarke, & Dede, 2010).

Recent literature in the field endorses 3D virtual learning environments as a particularly appropriate platform for the development of oral language proficiency in distance education, collaborative, and intercultural learning contexts and vocational training (Mayrath, Traphagan, Heikes & Trivedi, 2009). Synchronous communication, user representation of 3D avatars and landscape features of MUVE create an enhanced sense of place and build an embodied ecology of experience that can constitute a situated learning environment (Lave & Wenger, 1991).

A recent empirical study showed that a sense of group presence in a virtual world setting is comparable to face-to-face groups (Franceschi, Lee, & Zanakis, 2008). Socio-cultural and situated learning models suggest that human activities take place in cultural contexts that are mediated by language and

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