

Avatar Mediated Self-Determined Learning in an Immersive 3-D Virtual Learning Environment

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Evolution of Virtual Learning

- The evolution of virtual learning has seen a progression of increasing interactivity and immersion
 - Text
 - Learning Management System (LMS)
 - 3-D Virtual Learning Environment (VLE)

Chapter 2: Literature Review

Introduction to the Chapter and Background to the Problem

This chapter will describe the theoretical framework of learning within which the avatar-mediated learning environment experience and the research questions and methodologies were developed, and discuss the current literature relevant to the application of learning in entrepreneurial training and the development and use of virtual learning environments. The literature review will consist of an examination of literature discussing the application of learning principles in entrepreneurial training, studies on the use of pedagogic and andragogic frameworks in VLEs, including communication and language learning, immersive experiences and training conditions, and the benefits and challenges associated with VLEs. This chapter will also discuss how entrepreneurial personality traits align with the pedagogical learning in a virtual learning environment, and how the design of the virtual environment, content development, technical and individual factors may be addressed to mitigate potential challenges and optimize opportunities for effectiveness.

The literature for this review was obtained through online searches of EBSCO, Omni, and ProQuest databases and supplemented by additional research through Google Scholar, websites for Linden Labs and Second Life. The searches used the following terms both individually and in various combinations: Second Life, training, education, learning, technology, 3-D, virtual, business, entrepreneurship, and simulation. In addition, the similar articles feature of the EBSCO database was used to locate additional literature, and some books and articles referenced in assessed literature were also gathered for review.



The VLE Experience

The Study

- This qualitative case study assessed the phenomenon of avatar-mediated self-determined learning of current and aspiring entrepreneurs in an immersive three-dimensional (3-D) virtual learning environment (VLE) within the Second Life Platform.
- Theoretical framework - Heutagogy (Self-determined learning)
- Data sources - Interview, Observation, Chat Transcripts
- Participants were fully self-determined in evaluation and selection of their training needs, learning materials, and the evaluation of the outcomes of the learning session

The Study

- RQ1: How do participant experiences of avatar-mediated self-determined learning (heutagogy) in entrepreneurial training in a 3-D virtual learning environment influence the perceived effectiveness of the experience on entrepreneurial knowledge of aspiring and current entrepreneurs?
- RQ2: How do participant experiences of avatar-mediated self-determined learning (heutagogy) in entrepreneurial training in a 3-D virtual learning environment influence the perceived effectiveness of the experience on entrepreneurial capability in aspiring and current entrepreneurs?

The Participants

- Participants consisted of a purposive sample of ten current and aspiring entrepreneurs with virtual world experience, who provided a variety of perspectives based on entrepreneurial activity (e.g. for or non-profit), experience (e.g. current or aspiring), industry, and gender.
- 30% Female 70% Male
- 100% at least some college - 60% college graduates
- 70% non-profit 30% for-profit organizations
- Representing 5 unique Industry Codes

The Results

- The experience of avatar-mediated self-determined (heutagogy) entrepreneurial training in a virtual learning environment was generally perceived as beneficial in the development of entrepreneurial knowledge and capabilities.
- Participants found the experience to be highly integrative
- Immersive experience supports learning focus, mindspace
- Use of avatar reduced inhibition and enhanced learning

The Results

- The use of a web-based platform that allowed participants to access the VLE through a standardized interface mitigated many of the technical challenges associated with hardware and software requirements and maintenance that can present a significant barrier to participant experiences in 3-D VLEs.
- The intersection avatar-mediated self-determined learning in an immersive 3-D VLE represents a new evolution in technology-assisted learning, and the incorporation of gamification concepts can advance research and practice in instructional design strategies and techniques for immersive 3-D VLEs.

Practical Applications

- The applied benefits of 3-D VLEs for training and development experiences include:
 - 24/7 availability
 - Virtual co-location for remote workers
 - Responsive content development and rapid deployment
- Beyond training and development, 3-D VLEs may be extended to other information development applications, for example:
 - Workshopping new ideas and strategies
 - Development and Testing of Customer Interaction Procedures and Strategies
 - Team-building events
 - Providing a cost-effective and “green” alternative to business travel

Questions

