Preparation Student Sojourners for Cultural Immersion in Multiple User Virtual Environments

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ABSTRACT

This paper examines the results of student reflections of their interactions in Second Life (SL) which were prompted by required class related activities. The research methodology used was qualitative meta-analysis based on a grounded theory approach. A theoretical framework based in a constructivist epistemology was used to examine cultural and pedagogical implications of introducing students to a virtual environment as part of a classroom experience. Data was gathered from two different populations, one consisting of undergraduate students utilizing SL as a pedagogical tool for learning visual literacy elements in an introductory photo class, the other consisting of graduate students in a Learning Technology course exploring SL to understand its potential for teaching and training. Examination of student reflections revealed remarkably similar results between groups with respect to their immersion into the SL environment and related culture. Analysis of the student reflections provide insight into pedagogical preparations that should be considered before introducing students into a Multiple User Virtual Environment (MUVE).

Keywords: Digital Natives, Immersive Learning, Multiple User Virtual Environment (MUVE), Second Life, Social constructionism, Social Presence

1. INTRODUCTION

Educators face an ongoing challenge of applying emerging technologies as effective pedagogical tools. Though Multiple User Virtual Environments (MUVEs) have only recently garnered much attention, more than two decades of research has explored the possibilities of utilizing virtual reality in education (Youngblut, 1998). As more is understood about these environments it is becoming apparent that interaction in mediated virtual spaces and places is not materially different than interacting in non-mediated environments. As the richness of the virtual environments increases, so does the human mind’s ability to perceive the virtual environment and the actors inside as being real. The next section explores literature related to this sense of presence in immersive virtual environments, how sojourners construct meaning related to their experiences in these ostensibly alien environments and pedagogical approaches to managing the challenges of introducing students to the cultures that are present in these environments.

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2. LITERATURE REVIEW

Immersive learning pedagogy is not a new paradigm, as the significance of context, application, and practice have been well documented throughout history, principally through apprenticeships, cooperative education and on-the-job training. In the 20th century, unprecedented forms of distributed education, role playing, case studies and simulations have become common forms of immersive education.

Immersive learning is utilized for preparation in the professional fields of teaching (Nieto, 2006) and medicine (Mak, Watson, & Hadden, 2011) to train students to be prepared for careers that often find practitioners in situations where they are working in locations where they are alien to the local culture. Similarly foreign exchange student programs at all levels deal with this issue on a recurring basis. Many such programs have adopted procedures where the sojourning student is placed with “host families” or paired with a “buddy” who are members of the local culture to assist them in their process of acculturation. Other programs provide opportunities for interaction with people from the sojourner’s own or more similar culture who are going through similar circumstances through resources such as international student organizations. Each of these types of program leverage social constructionism to aid the individual in making meaning of their experiences in a “new” culture. In some cases the relationship is cultural member/non-member and in other cases it is mutual non-member. In either case there is a social relationship that aids in developing meaning and context through shared experiences. As immersive education has an extensive theoretical base, it is practical to view MUVEs, through that well documented lens (Johnson, Levine, & Smith, 2008).

2.1. Social Constructivist Theories of Learning

The discourse of the pedagogical value of MUVEs is further extended to the learning theories upon which the pedagogies are based. Researchers examining MUVEs have been largely interested in investigating questions regarding issues of the affective domain and social interaction. Accordingly, MUVE teaching models based on Social Constructivist theories of learning (Dewey, 1938; Piaget & Inhelder, 1971; Vygotsky, 1978; Brunner, 1997) dominate the scholarly literature. The constructivist view has evolved in contemporary scholarship and is framed by three primary tenets:

1. Reality is not discovered and does not pre-exist. It is constructed through human activity. Members of society invent the properties of the world.
2. Knowledge is a product of human interaction, socially and culturally created.
3. Learning is a social and active process. Learning takes place when individuals participate in social activities (Molka-Danielsen & Deutschmann, 2009, pp. 16-17).

The first tenet implies that, each individual constructs their own framework of knowledge, and there is no “correct” framework of knowledge. This position, first proposed by Kant, later adopted by Dewey (Von Glasersfeld, 1984) is the antithesis of Parmenides’ view that reality is invariable, ungenerated, and imperishable (Melchert, 2002). The second tenet, primarily credited to Piaget, implies that learning occurs during active investigation when a learner encounters a deficiency in their knowledge base or an inconsistency arises between their understanding and experience. The third tenet, attributed to Vygotsky (1978) implies that a dynamic interaction between task, learner and instructor is a necessary part of the learning process.

Prior to the existence of MUVEs, Tam (2000), suggested that educational technology applications appeared to provide an inherently constructivist structure, facilitating a paradigm shift; from possessing knowledge toward constructing knowledge. In practice many scholars discovered, constructivism afforded a solid theoretical foundation, for the develop-
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