Chapter 19

Addressing Online Student Learning Environments and Socialization Through Developmental Research

Ruth Gannon Cook
DePaul University, USA

Caroline M. Crawford
University of Houston – Clear Lake, USA

EXECUTIVE SUMMARY

The chapter looks at the online learners in the course to distinguish whether interactivity and an online community was established. This case study also considers the shift that took place in the learners' focus from simply participating in an online course to reframing their understanding of the course content and whether this holistic approach reflects both the students' and instructor's learning objectives and anticipated outcomes. Design, development and implementation of online learning environments have predominated distance education research over the past fifteen years. Since 2006, dynamic communities of learning have begun to emerge that encompass a more expansive learning environment, addressing the needs of adult learners and their sociocultural environments as well as content materials. This study employs developmental research to examine online learners engaged within a dynamic learning community and provides detailed feedback on the strengths and potential weaknesses of the online course employed in the study.

BACKGROUND

The university that provided the course and sample student population was a small public university located in the southwestern area of the United States. The course was titled *INST 6137: Technology and*

eLearning and the research was conducted during the fall 2008 semester, from August 2008 through December 2008.

At the beginning of the course, there were 13 subjects enrolled and, due to different personal reasons, four dropped the course within the first week, and nine students went on to successfully complete the

course. Three of the subjects were male, and six of the subjects were female. Concerning the subjects' ethnicity, one subject was African American, three Mexican-American, one American Indian, and five Caucasians. These students had several aspects in common; they

- were Instructional Technology degree-seeking graduate students;
- had successfully completed a minimum of 24 graduate-level course credits (8 courses) within the graduate degree program of study; and,
- all had successfully completed the majority of their graduate-level courses within the online learning environment.

The online course was designed with innovative course features, such as embedded metaphorical representations and innovative classical music underlays, to enhance the course atmosphere, support the learner's developing conceptual frameworks, and engage learners in multi-sensory stimuli. Multimedia components were integrated with graphics, audio, video, interactive gaming, and web conferencing to help reframe basic online text-based content. There were also some activities designed to let students experiment with *Moodle* (Moodle.org, 2008) learning community features.

The researcher who was embedded in the course had been designing, developing and teaching online courses for at least ten years. In addition, the researcher had developed collaborative research partnerships with colleagues, such as the second researcher, who were interested in affective elements, like icons, metaphors and narratives, which seemed to mediate recognizable symbols with new materials and enhance students' conceptual frameworks of understanding. The study of affective elements has recently become a primary consideration within online learning environments (Ahrlberg, 2008; Crawford & Gannon-Cook, 2008; Doyle, Radzicki, & Trees,

2008; Gannon-Cook & Crawford, 2004, 2006; Pink, 2005). The researchers sought to explore whether these representations could have any documentable impact on students' learning in the course.

SETTING THE STAGE

Much research on online instructional design has focused primarily on multimedia, assessment, and text, but researchers are now beginning to look more at topics, such as, what actively engages students, how can online students and instructors interact more effectively, and what makes an online class become a learning community? Dynamic learning communities encompass more comprehensive, multi-layered learning environments which include adult learner and sociocultural perspectives. This study conducts developmental research in a case study of online graduate students at a public university in the southwestern United States. The research provides detailed feedback on the strengths and weaknesses of dynamic learning environments, as focused upon the course design, content, and learners in online courses in holistic learning and practice communities. It also looks at the student reflections and evaluations that reveal their thoughts about this type of dynamic learning experience compared with prior online learning experiences.

The study looks at whether one of the reasons for the deep level of student comprehension (and retention) may be due to the embracing architecture of Web 2.0 technologies that is focused upon social engagement and the community of learning that help scaffold the course content on prior learning (Vygotsky, 1935, 1962, 1978, 1981; Wertsch, 1985). One more factor reviewed whether the inclusion of semiotic tools could have an influence on students' receptivity to the content conveyed by new technologies (Chomsky, 2004; Cook, 1985; Cobley, Jansz, 2003; Gannon-Cook & Crawford, 2006; Hamilton, 1969; McLuhan,

Related Content

Frequent Sets Mining in Data Stream Environments
Xuan Hong Dang, Wee-Keong Ng, Kok-Leong Ongand Vincent Lee (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition (pp. 901-906).*
www.irma-international.org/chapter/frequent-sets-mining-data-stream/10927

Efficient Graph Matching
Diego Reforgiato Recupero (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition (pp. 736-743).*
www.irma-international.org/chapter/efficient-graph-matching/10902

Evolutionary Data Mining for Genomics
Laetitia Jourdan (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition (pp. 823-828).*
www.irma-international.org/chapter/evolutionary-data-mining-genomics/10915

Matrix Decomposition Techniques for Data Privacy
Jun Zhang, Jie Wangand Shuting Xu (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition (pp. 1188-1193).*
www.irma-international.org/chapter/matrix-decomposition-techniques-data-privacy/10973

A Data Mining Methodology for Product Family Design
Seung Ki Moon (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition (pp. 497-505).*
www.irma-international.org/chapter/data-mining-methodology-product-family/10866