Chapter 17

Computer-Supported Collaborative Learning and Assessment: A Strategy for Developing Online Learning Communities in Continuing Education

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ABSTRACT

This chapter focuses on re-interpreting the findings of a recent study based on collaborative learning perspectives. The study utilized a case study design in which two online postgraduate courses were investigated as a collective case study. Online observations, analysis of the archived course content and interview transcripts were used as data collection techniques. The data from multiple sources were triangulated. Qualitative techniques were used in data analysis and descriptive statistics were integrated to extend the meaning of qualitative data. The findings of the study suggest that social interactivity is pivotal to facilitating meaningful learning in formal online education. The findings further illustrate that development of productive communities in continuing (in-service) education is a gradual process that evolves through four stages starting from community of interest to community of practice.

INTRODUCTION

Online and blended learning have become common place in 21st century higher education. In reviewing related literature, Gikandi (2012) identified that computer-supported collaborative learning (CSCL) continues to be recognized as an important pedagogical approach in formal education. In particular, CSCL has been identified as one approach that can promote flexible thinking and learning skills, which are important in supporting learners to engage in higher-order learning and robust knowledge building (Hämäläinen & Häkkinen, 2010; Mukama, 2010; Wegerif, 2006). In the light of this, the purpose of this chapter is to re-interpret the revisited study with the aim to draw some insights that can inform online learning communities in continuing education.
pedagogical strategies, especially in the context of continuing education. In the following sub-section, a brief review of the literature on CSCL is provided in order to highlight its key role in higher education.

**Tenets of CSCL in Higher Education**

It is apparent that CSCL is a core approach that underpin many pedagogical strategies within higher education in general, and within online and blended learning contexts in particular (Hiltz, 1995; Mason & Bacsich, 1998; Salmon, 2004; So & Bonk, 2010). As Wegerif’s (2006) study indicates, CSCL has become a common pedagogical approach with the emergence of networked society that is mainly characterized by electronic networks and World Wide Web. As previous studies affirm, it is necessary to consider pedagogical paradigms and strategies that align well with the electronic networks as a medium of teaching and learning in the context of CSCL (So & Bonk, 2010; Wegerif, 2006). The key focus in CSCL is to promote social learning in which development of ‘space of a dialogue’ that is situated within a relevant context is emphasized (Wegerif, 2006). In such dialogic spaces,

*For each participant in a dialogue the voice of the other is an outside perspective that includes them within it. The boundary between subjects is not therefore a demarcation line, or an external link between self and other, or a tool of any kind, but an inclusive “space” of dialogue within which self and other mutually construct and re-construct each other.* (Wegerif, 2006, p. 44)

Moreover various studies (Dewiyanti, Brand-Gruwel, Jochems, & Broers, 2007; Hämäläinen & Häkkinen, 2010; Wegerif, 2006) suggests that CSCL is centred within dialogical interactions and its power emanates from its potential to coalesce multiple perspectives of individual participants. That is, the power of collaborative learning comes from “the pooling of different knowledge and alternative perspectives distributed within the group” (Stahl, 2010, p. 257). As Stahl suggests, different paradigms, strategies and tools can be adopted in CSCL but one key aspect that is necessary for development of desirable interactive collaborations is building of mutual trust and cohesion within a group. Sustained interactions is a critical socio cognitive process for facilitate collaborative learning particularly within online settings (Garrison, Anderson, & Archer, 2000; Hiltz, 1995; Mason & Bacsich, 1998; Salmon, 2004). As reported in Dewiyanti et al. (2007), such environments within CSCL are also beneficial in overcoming the physical isolation between students and teachers. According to Dewiyanti et al. use of an asynchronous CSCL environment is recommended in distance education as opposed to a synchronous CSCL environment because it allows flexibility in terms of time to read, reflect and compose responses. Furthermore this supports development of an engaged learning community.

Moreover, Garrison et al.’s (2000) community of Inquiry (COI) framework suggests that social presence in online learning settings is key to facilitating cognitive presence as a manifestation of meaningful learning. Meaningful learning in this context is conceptualized as learning that is robust and transferable to real-life professional practices and contexts (Herrington, Reeves, & Oliver, 2006; Mackey, 2009). Social presence is therefore foundational to collaborative learning and critical online discourse because it facilitates cognitive engagement through triggering, sustaining, and fostering critical thinking within a learning community (Garrison et al., 2000; Akyol, Garrison, & Ozden, 2009). Garrison, et al.,(2000) defined social presence as “the ability of participants in the Community of Inquiry to project their personal characteristics into the community, thereby presenting themselves to the other participants as “real people” (p. 89). In formal online educational settings, social presence embody the experience of being