# Chapter XII
# Working Collaboratively on the Digital Global Frontier

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## ABSTRACT

*An international online collaborative learning experience was designed and implemented in preservice teacher education classes at the University of Calgary, Canada and the University of Southern Queensland, Australia. The project was designed to give preservice teachers an opportunity to live the experience of being online collaborators investigating real world teaching issues of diversity and inclusivity. Qualitative research was conducted to examine the complexity of the online collaborative experiences of participants. Redmond and Lock's (2006) flexible online collaborative learning framework was used to explain the design and the implementation of the project. Henri's (1992) content analysis model for computer-mediated communication was used for the online asynchronous postings and a constant comparative method of data analysis was used in the construction of themes. From the findings, the authors propose recommendations for designing and facilitating collaborative learning on the digital global frontier.*

## INTRODUCTION

Teaching and learning across borders can be accomplished using contemporary information and communication technology (ICT) tools. Online synchronous and asynchronous technologies provide the ability to share ideas, gain multiple perspectives, collaboratively co-create knowledge and develop a collective intelligence. The power of anyone, anywhere and anytime online learning

along with the social and collaborative nature of learning valued in the 21st century creates new learning opportunities.

This qualitative research examines the design and the implementation of an international online collaborative learning experience within preservice teacher education classes in one Canadian and Australian university. The project was launched in 2006 and modified for re-implementation in 2007. The aims of the work were to:

- Model the use of ICTs within teaching and learning;
- Advance educational thought and practice;
- Develop global relationships; and
- Develop an increased understanding of diversity and inclusivity in today's classrooms.

## FLEXIBLE ONLINE COLLABORATE LEARNING FRAMEWORK

The conceptual framework for an online collaborative learning environment is grounded in social constructivism. "Social constructivists believe that meaning making is a process of negotiation among the participants through dialogues or conversations" (Jonassen, Peck, & Wilson, 1999, p. 5). With social constructivism "learning is essentially a social activity, that meaning is constructed through communication, collaborative activity, and interactions with others" (Swan, 2005, p. 5). The opportunity to interact with other learners in sharing, discussing, deconstructing, and negotiating meaning leads to knowledge construction.

When designing for knowledge building using a social constructivist approach, the work begins with an understanding of the relationship between pedagogy and technology. ICT tools, such as asynchronous discussion forums, provide a medium for communication and collaboration

to occur. The challenge is to change the focus of teaching and learning from being *about* the technology (e.g., added to practice), to a focus *on* the pedagogy that allows for the creation of new spaces for deep learning in which the technology is purposefully selected and used to enhance and extend learning.

New technologies "demand that educators rethink the nature of their work and the forms of collaboration and communication" (Clifford, Friesen, & Jardine, 2003, p. 1). Given this demand, Redmond and Lock's (2006) online collaborative learning framework, an adaptation of Garrison, Anderson, and Archer's (2000) *Community of Inquiry* model, provides a structure to design online collaboration. Figure 1 shows the relationship between the seven elements of the Redmond and Lock (2006) framework. Later in the chapter, this framework is discussed and used to describe the design and implementation of the online collaborative project for preservice teachers and in discussing the research findings.

## RESEARCH DESIGN

For this research, a case study approach provided a means to report in a holistic fashion the authentic online collaborative learning experience of preservice teachers in two iterations of the project and to examine the complexity of the online collaborative experience. The study investigated how preservice teachers in two countries identified and explored critical issues embedded in cultural diversity and inclusion, and inquired into how to honour this diversity in elementary/primary classrooms.

The project occurred over a six-week period in early 2006 and 2007, using a three-phase project design based on the Redmond and Lock (2006) online collaborative learning framework. All students were in face-to-face courses, however the work for this project occurred online using the learning management system, Blackboard™, and videoconferencing. The 2006 case study involved

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