

## Chapter 2

# Learning and Satisfaction in Online Communities of Inquiry

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### ABSTRACT

*The purpose of this chapter is to explain the capability of the Community of Inquiry (CoI) framework as a research model to study student learning and satisfaction. The framework identifies three elements (social, cognitive, and teaching presence) that contribute directly to the success of an e-learning experience through the development of an effective CoI. It is argued that a CoI leads to higher learning and increased satisfaction. The chapter presents findings from two online courses designed using the CoI approach. Overall, the students in these courses had high levels of perceived learning and satisfaction, as well as actual learning outcomes.*

### INTRODUCTION

Online learning has reached a point where it has been accepted as an important alternative or enhancement to traditional face-to-face education. Changing needs and expectations of 21st century students and the advances in communication technologies are the main reasons for this development. However, there are still concerns about the quality of online learning programs, which raises the

question of how to evaluate the success of online learning. The literature points out two variables that have been studied extensively: learning and satisfaction. In order to increase the effectiveness of online learning programs, researchers have been exploring factors and issues affecting students' learning and satisfaction in online environments as well as developing and applying strategies and theories to enhance their learning and satisfaction. In this chapter, an overview of the CoI framework as one promising theory to achieve higher levels

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of learning and satisfaction is introduced along with supporting research.

## **BACKGROUND**

An important line of research regarding learning online has been the exploration of the challenges and factors affecting the success of students' learning experiences. For example, Mingming and Evelyn (1999) found eleven factors significantly related to students' perceived learning:

- instructor-student interaction,
- instructor-student communication,
- instructor evaluation,
- instructor responses,
- student-student interaction,
- student-student communication,
- online discussion,
- written assignments,
- learning style,
- prior computer competency, and
- time spent on a course.

However, the most influential factors were students' perceived interaction with their instructor followed by online discussion.

Similarly, Eom, Wen and Ashill (2006) examined several factors, from course structure to self motivation, as potential determinants of perceived learning outcomes and satisfaction in asynchronous online learning courses. The results showed that only two of them, learning style and instructor feedback, affect perceived learning outcomes.

In terms of satisfaction of an online learning experience, however, there is less consensus. Researchers have identified a wide range of variables associated with satisfaction (Lin & Overbaugh, 2007; Martz, Reddy & Sangermano, 2004; Sahin, 2007; Sun, Tsai, Finger, Chen & Yeh, 2008). The common theme is that instructor support and interaction contribute significantly to learner satisfaction. Similarly, it has been shown that small

group interaction (Driver, 2002) or collaborative interaction (Jung, Choi, Lim & Leem, 2002; So & Brush, 2008) created higher levels of social presence and satisfaction.

Researchers have also begun to investigate the relationship between students' perceived learning and satisfaction and a sense of community. This coincides with an increasing emphasis on community building in online learning environments. The research of Rovai (2002) provided evidence for the relationship between sense of community and perceived learning. He concluded, online learners who have a stronger sense of community and perceived learning feel less isolated and have greater satisfaction with their academic programs. In turn, Rovai found that students felt less isolated which resulted in fewer dropouts. Parenthetically, this link between satisfaction and retention was also found by Schreiner (2009). Harvey, Moller, Huett, Godshalk and Downs (2007) also investigated whether a stronger sense of community would lead to increased learning and productivity in asynchronous environments. They found that more peer interactions, as expressed by community comments, resulted in higher learning as evidenced by higher grades. In other words, learning occurred within the teams as they worked together to complete their projects. Many other studies have also confirmed the impact of community on students' learning and satisfaction in online environments (e.g., Ertmer & Stepich, 2004; Shea, 2006; Shea, Li, & Pickett, 2006; Liu, Magjuka, Bonk & Lee, 2007).

Considering all the previous studies, the evidence suggests that a community of inquiry approach may lead to higher levels of learning and satisfaction. This is reinforced by Palloff and Pratt (2005) who indicate that creating and sustaining a community for online learning enhances student satisfaction and learning through community involvement. The potential of the Community of Inquiry (CoI) framework developed by Garrison, Anderson and Archer (2000) is derived from its ability to provide a comprehensive look at how

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