Graduate Students’ Perceptions and Experiences of Online Collaborative Learning in Web-Based and Web-Supplemented Learning Environments

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ABSTRACT

This case study was designed to investigate students’ perceptions and experiences of the dynamics of online collaborative learning over a semester. Multiple sources of data were collected and triangulated through pre- and post-surveys, personal interviews, group reflection papers, and instructor’s observations. Forty-one graduate students enrolled in the same course with the same instructor in two different learning environments—web-based and web-supplemented, participated in the study. The overall results indicated that students in the two environments shared their positive understandings and perceptions about online collaborative learning, which were significantly deepened over time. However, the students in the web-based class were found more positive about the advantages of online collaborative learning than those in the web-supplemented class as their learning experience developed. The study also identified the attributes that were considered crucial to successful online collaboration.

Keywords: Collaborative Learning, Online Collaborative Learning, Qualitative and Quantitative Approaches, Student Motivation, Web-Supplemented Learning Environments

INTRODUCTION

According to Piezon and Donaldson (2005), as distance learning continues to grow in popularity with students, instructors and administrators, instructors are seeking ways to improve their online learning experience. One method of accomplishing this goal and preparing students for positive online learning experiences is through creating an online collaborative learning environment. Piezon and Donaldson (2005) argue that for instructors who choose to utilize...
online collaborative learning and are looking for creative ways to help students in their online learning; it becomes crucial to ascertain how to optimize the online collaboration experience for those involved.

**LITERATURE REVIEW**

With the advancement of emerging technologies, online learning has become increasingly popular in higher education, either in completely online learning environments or in residential courses as a supplement. Consequently, the notion and the practice of online collaborative learning have also been growing. Peer-collaboration is considered a critical component in online learning (Moore & Kearsley, 2004). A wealth of literature also confirms numerous benefits of online collaboration for learning (e.g., Harasim, 1990; Pea, 1993; Scardamalia & Bereiter, 1996). In addition, Berge (1999) argues that learning takes place only after the student has actively engaged in interactions with others. Unless students feel part of a community of learners, they are unlikely to succeed in an online learning environment (Wegegrif, 1998).

Empirical research on the dynamics of online collaborative learning has increased recently. With critical review and synthesis of extensive literature from related fields, Zhang and Ge (2006) proposed a conceptual framework to guide research and practice regarding online collaborative learning based on thorough understanding of the complexity of the dynamics of online collaboration represented in four aspects: team tasks, group development, peer relationship and communication media. As elaborated in this framework (Zhang & Ge, 2006), team task addresses the cognitive demands and media requirements for collaboration, based on the type, complexity, and structure of the task; group development examines the different stages and corresponding dynamics a team goes through; peer relationship addresses the affective component of online collaboration and its impacts on team development and task performance; and communication media concerns students’ media choice and media behavior, which would either cause or help overcome some of the difficulties in online collaborative learning.

Zhang and Ge (2006) provided insights into the dynamics of online collaborative learning, and they called for more empirical studies to further extend the understandings of online collaborative learning from the four perspectives discussed. Very little research has been conducted to investigate learners’ perceptions of online collaborative learning pertaining to all the four aspects. Research indicates that students’ perceived value of the learning environment has direct impacts on their academic achievement goal adoption, which in turn, influences task performance and intrinsic motivation (Church, Elliot, & Gable, 2001; Miller & Brickman, 2004). Therefore, the perceived instrumentality of online collaborative learning has benefits for self-regulated learning. Understanding of students’ perceptions of online collaborative learning may help us predict the success, difficulty, or failure of online collaborative learning, and will also enable online instructors and instructional designers to select and apply appropriate strategies accordingly.

Thus, the purposes of the study were to further validate the conceptual framework of online collaborative learning (Zhang & Ge, 2006), and to explore students’ perceptions, experiences, and feelings of online collaboration. More specifically, the following research questions guided our study:

1. How do students define, and perceive the value of collaboration and online collaboration? How do they feel about online collaboration?
2. What do students perceive as critical factors that contribute to the success or failure of online collaborative learning? How does online collaborative learning relate to team task, team development, member relationship, and media?
3. Do students’ perceptions of online collaborative learning change after a semester’s experiences? If so, in what ways?
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