Chapter 7.3

Collaborative Work in Online Learning Environments:
Critical Issues, Dynamics, and Challenges

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ABSTRACT

The focus of this study is on issues that impact the success of collaborative working online learning groups. The issues of how such groups work collaboratively, how to facilitate them, and what makes work in such groups satisfactory and successful were explored. The data were colleted by semi-structured interviews from the participants in an online, project-based course. Hackman and Morris (1975)'s model was used as an analysis framework while interpreting the data. According to the results, it is found that group homogeneity plays a major role on successful group work. The second major finding is the importance of face-to-face communication among online teams. The findings of this study are especially important for those people who are planning to organize activities which involve collaborative learning groups.

INTRODUCTION

Group work is an important part of the teaching and learning process in traditional face-to- face educational environments. Instructors can use it as an instructional strategy to create social interaction among group members. Learning is most effective when students work in groups, verbalize their thoughts, challenge the ideas of others, and collaborate to achieve group solutions to problems (Johnson, Johnson, & Holubec, 1994; Johnson,

Johnson, & Stanne, 2000; Palloff & Pratt, 1999). Collaborative learning is a specific form of group work which is viewed as working together in small groups towards a common goal (Gokhale, 1995). Collaborative learning offers many benefits to learners and it is further defined as a technique that supports constructivist learning. Constructivists believe that knowledge is a result of social construction of meaning in a particular social context. Students interact not only with their instructor, but also with one another (Brandon & Hollingshead, 1999).

Given the increasingly widespread use of Information and Communications Technologies (ICT), individuals around the globe are beginning to participate collaboratively in organizations for learning and work (Riel, 1993; Travica, 1997). Specifically, a host of synchronous and asynchronous Internet and Web-based tools are being widely used to support and facilitate these purposes. As proposed by researchers and practitioners promoting social learning theories (Bonk & Cunningham, 1998) and distributed learning (see, for example, Thach & Murphy, 1994), a collaborative team approach may be the most effective means for learning and working in online or virtual environments.

The members of an online group generally do not have the advantage of face-to-face interaction and communication, but instead rely solely upon an assortment of computer-supported cooperative learning and work tools. The current state of technology is such that online team members can technically function well, despite being dispersed across the globe (Chinowsky & Rojas, 2003). With the help of ICT, more and more projects have been conducted by online teams. Even though group-based activities in organizations and educational institutions have significantly increased recently, research on group work has stayed behind (Guzzu & Salas, 1995). Graham (2002) stated that there is need for more educational research on computer-mediated teams.

In parallel to this need, this study explored issues in collaboratively working online learning groups in an online course. The analysis framework is based on Hackman and Morris (1975)'s model for analyzing the elements that impact group behavior and performance. They stated that groups are bounded by three phases of group patterns that include entry, process, and outcome elements. Entry elements consist of all contingency factors that affect group formation. Process elements are related to actual activities in which a group engages. Finally, outcomes are what the groups produce and achieve (Carabajal, LaPointe, & Gunawardena, 2003). In the scope of this study, the impact of these elements was analyzed in an online, project-based course. As a result, the researchers looked for answers for the following main research question:

- How do group system variables (entry, process, outcomes) impact online group development in an online, project-based course?

While answering this main research question, the researchers tried to answer the following subquestion: What are the most important issues in creating and supporting groups that work collaboratively in an online environment? Some of the key issues that are addressed in this study are: group member characteristics, participation in group work among members, technology use (choice of communication medium) by group members, and the effect of other factors on the performance of such a group.

METHOD

Participants

The participants of this study were chosen from an online, project-based course which was offered in

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