Chapter VIII

Computer-Mediated Learning Groups: Benefits and Challenges to Using Groupwork in Online Learning Environments

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ABSTRACT

With the increased availability of computers and Internet technologies, computer-mediated learning environments are on the rise in both higher education and corporate sectors of society. At the same time there has been an increased awareness among educators and researchers of the importance of human interaction in the learning process. Computer-mediated groupwork is an instructional strategy that combines online technologies with human interaction. This chapter defines computer-mediated learning groups and outlines critical differences between learning groups and work groups. The chapter further explores benefits and challenges associated with using
groupwork in online learning environments. Case examples and research related to (1) creating the groups, (2) structuring group activities, and (3) facilitating group interactions are provided.

INTRODUCTION

Advances in computer- and network-based technologies over the past decade have greatly expanded the possibilities for the development of online learning environments. Additionally, the demand for distance learning in public schools, higher education and especially the corporate sector is on the rise. The National Center for Educational Statistics in the United States reported the existence of over 50,000 distance education (DE) course offerings, with growth in the number of institutions of higher education offering DE courses increasing across all sizes and types, except two-year private institutions (Lewis, Snow, Farris, Levin, & B.G., 1999). Similarly, in the corporate sector, the American Society for Training & Development reported record levels of technology-mediated training (or e-learning), accompanied by slight decreases in face-to-face classroom training (Thompson, Koon, Woodwell, & Beauvais, 2002).

However, despite the benefits associated with increased access to distance learning opportunities, there is ample anecdotal evidence that much of the distance learning does not effectively take advantage of proven collaborative methodologies such as groupwork. Groupwork is a powerful instructional method that has been widely used in face-to-face learning environments, and the cooperative learning literature is full of research documenting the benefits of having learners work in groups (Cohen, 1994; Johnson & Johnson, 1999). Groupwork has also been an important feature of corporate innovation and productivity. While there is an increasing visibility of computer-mediated groupwork (often called “virtual teamwork”) in the business and organizational sciences literature, there is very little research available in the educational literature. Those disciplines have recognized that there exists an increased need to coordinate work among individuals, across both organizational and geographical boundaries (Armstrong & Cole, 1995; Lipnack & Stamps, 2000; Townsend, DeMarie, & Hendrickson, 1998). Over the past decade, there has been a great deal of interest and research in collaborative and cooperative distance learning environments, as evidenced in the computer supported collaborative learning (CSCL) literature (Bonk & King, 1998; Harasim, 1990; Koschmann, 1996; Koschmann, Hall, & Naomi, 2002). Much of this research has focused on strategies for promoting collaboration and communication at a distance using various technologies but has not specifically focused on groupwork as an instructional strategy. While there has been much research done on groupwork in a face-to-face environment, there is little research in the field of education that has focused specifically on computer-mediated groups or groups whose mem-
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