

The Virtual Community of an Online Classroom: Participant Interactions in a
Community College Writing Class Delivered by Computer-Mediated Communication
(CMC)

INTRODUCTION

This study describes and interprets the actions and interactions of community college students in a computer-mediated communication (CMC) class which existed only as text on a computer screen. The report of how this group of people interacted in their virtual classroom will be of interest to people who are making policy about CMC instruction, designing CMC systems and curriculum, teaching CMC courses, and to those considering participation in CMC courses.

Background

Telecommunication is a national policy agenda today. Every American who reads a newspaper or who watches television has at least heard of the information highway. Jones (1995) states that there are approximately 1.5 million users on 30,000 computer networks, and that the numbers are increasing at a rate of 10% each month. Public access to future technological advances is increasing and it is predicted that telecommunications will be even more pervasive in the near future (Chapin, 1993; Stix, 1993). Many colleges and universities are offering courses and degree programs via Electronic Distance Education (EDE). It is becoming a standard component of instructional delivery in higher education (Lauzon & Moore, 1989).

Colleges are facing reduced funding and at the same time are anticipating increased student populations (Zumeta, 1995). Due to the constraints of work and various access issues, many students have time and place barriers which limit their participation in traditional classes (Cross, 1981; Merriam & Caffarella, 1991). When considered together,

these factors lead many to believe that EDE and particularly CMC courses and degrees will be increasingly more popular (Harasim, 1990; Kinnaman, 1995; Lever, 1992).

Computer-Mediated Communication is already being used as the delivery medium for college degree programs and a growing number of students and teachers are meeting in virtual classrooms (Connolly & Schneebeck, 1993; Holden & Mitchell, 1993). Yet, little is known about the interactions of participants in the virtual community of a CMC class. It is vital that the decision makers and those who will be charged with implementing their decisions have more than just the cost and access information about CMC instructional delivery available to them. This study is an effort to understand the interaction in one CMC classroom in a community college. As educators design systems, curriculum, and student services for CMC students, the hypotheses generated by this study may be useful.

Questions

Some questions about CMC students and their virtual environment sparked this research. What actions, interactions, relationships, or group dynamics occur among the participants (students and instructor) in such a community? What kinds of communication (writing) patterns do participants use? Do the actions and interactions support, encourage, or engender participation, collaboration, or learning? Does this virtual community resemble other communities? What impact does the CMC environment have on participant feelings of satisfaction, comfort, inclusion, or exclusion? Answering these questions led to a better understanding of the experience this group of students had in their virtual classroom.

The Literature

There are little empirical data available about the community that is formed in a CMC class—how the participants interact, or what impact the environment itself has on the instruction or on interactions of the participants (Basham, 1991; Rosenthal, 1991). The relevant information that is available is diffused into many disciplines and is not yet well organized, researched, nor documented in a specific context (Metz, 1994). In a general review, the theoretical constructs of community, communication (interpersonal), CMC, and collaborative learning dominate the literature about this new educational domain. As such, they form the framework of the study.

The literature about CMC instructional environments focuses primarily on comparing CMC with face-to-face (FtF) instruction in such areas as general effectiveness, cost effectiveness, achievement levels, and the characteristics of CMC students and of CMC systems. However, the secondary themes revealed in this literature are of more interest for this study. The CMC literature establishes instructional CMC as a new educational domain. It provides an interactive and social instructional environment which meets the needs of students to access education outside of traditional classrooms and affords them both satisfaction and academic success (Cheng, Lehman, & Armstrong, 1991; Lauzon, 1992; Phelps, Wells, Ashworth, & Hahn, 1991; Stubbs & Burnham, 1990).

Communication is the essence of the CMC environment, making it logical then to examine the communication literature to explore and define different kinds of communication, communication patterns and theories about how people are present in and relate through communication (Rogers, 1986; Short, Williams, & Christie, 1976; Walther, 1990). The connections between how people communicate, relate, collaborate, and how they learn are strong and integral to a study aimed at describing what happens in

a new instructional domain. The learning literature provides insight about how people learn and a framework for assessing the characteristics of the CMC environment in terms of how such an environment may support or affect learning. Collaborative learning literature draws direct connections between learning and social interaction and holds that learning can be facilitated by the provision of an environment rich in social interaction. The research suggests that CMC provides such an environment and can support collaborative instructional activities (Harasim, 1987; Jennings, 1987; Kinkead, 1987; Peyton, 1987).

Consistent throughout all the literature about CMC is the concept of community — that sense of group identity which reduces social isolation, encourages interactive mental engagement, and provides a social context for conversation and dialogue. The community concept provides the thread that binds the elements of communication theory, distance education, and learning theory into the whole of the instructional CMC context (Connolly & Schneebeck, 1993; Kay, 1995; Levy, 1995; Rheingold, 1995; Stoll, 1995).

The Methodology

A qualitative research design was selected for this study. The design is appropriate to gain detailed descriptive information about the actions and interactions of students and their instructor in the virtual environment of a CMC classroom. Descriptive information has been needed to gain familiarity with this new educational domain and to address gaps in the knowledge (Baym, 1995; Crook, 1994; Escobar, 1994; Harasim, 1987; Wells, 1992). The conclusions reached from this study have implications for building theory, policy, action, and further research.

Definitions Of Terms

BBS is the acronym used for a computer bulletin board system.

Best Practice Model describes an application of instructional practice that integrates the components considered to be essential to the optimum implementation of a particular instructional theory.

Computer-mediated Communication (CMC) is a distance education/electronic distance education (DE/EDE) delivery medium which allows students and instructors to access time and place independent instruction, utilizing a computer, modem, telecommunications software, and a telephone connection (Harasim, 1990).

Community is defined in many ways, but, in the EDE context it is generally used to describe a sense of group identity which reduces social isolation, encourages interactive mental engagement, and provides a social context for conversation and dialogue (Grabowski, Pusch, & Pusch, 1990; Harasim, 1987).

Cyberspace refers to the shared, virtual space created by the networks and systems of computer-mediated environments.

Distance Education (DE) is defined as any instruction which occurs with the instructor and the student/s in separate locations; it encompasses all formats including EDE and its subset CMC.

Ethnography is both a descriptive and an interpretive, sense/meaning-making, account of the actions and interactions of the participants in a social unit (Agar, 1986; Bogdan & Biklen, 1982; Erickson, 1984) .

Electronic Distance Education (EDE) is DE delivered through any of a variety of electronic technologies including telephone, radio, television, video, and computer-mediated communication.

Emoticons are relational icons constructed of combinations of punctuation marks to represent nonverbal communication such as smiles, frowns, etc. (See Appendix A).

FtF is the acronym used for *face-to-face*, the communication standard against which all communicative media is compared. It is also the traditional classroom instruction standard.

Grounding is the process through which communicators confirm that their communications have been understood.

Immediacy is the “psychological distance which a communicator puts between himself or herself and the object of his/her communication” (Gunawardena, 1994, p. 3).

Learner-centered instruction is characterized by active student participation, student responsibility for the learning, knowledge facilitator and coach role for the instructor, and interactive, evaluative and cooperative roles for all participants (Bruffee, 1986) .

Social presence is “the degree to which a person is perceived as a *real person* in mediated communication” (Gunawardena, 1994, p. 3).

Telnet is the internet standard protocol used to connect to a remote computer system from another computer and then function on the remote system as if directly connected.

Triangulation a process through which qualitative research findings are derived and verified, first, by acquiring data from multiple sources and by multiple methods, and then by verifying the findings with multiple sources and/or methods (Miles & Huberman, 1994) .

Virtual is a term used in computer-mediated communication literature to define an environment which exists in essence though not in actual form.