FACTORS AND ISSUES SUPPORTING LEARNING COMMUNITIES
AMONG DISTANCE LEARNERS: A CASE STUDY IN AN ONLINE COHORT

by

SUNJOO HONG

(Under the Direction of Lynne Schrum)

ABSTRACT

The purpose of this study was to investigate sources and processes that impacted community building among distance learners enrolled in an online cohort program within the context of higher education. Sub-purposes were threefold. First, this study identified the existence of a community in the online cohort program. Next, it identified factors and issues that supported the creation and sustained the community in the online cohort. A third purpose was to describe the processes of individual participants’ involvement in the community throughout the period of the cohort program.

A qualitative case study design was appropriate, given the research questions. The case was an online, four semester-long, non-degree program based on a cohort model offered in a large southeastern university. Data were primarily gathered through two phases of open-ended questionnaires to self-selected participants. Another source of data was the postings on the course bulletin boards made by the four primary participants during the last three semesters. Data were inductively analyzed and interpreted searching for themes and patterns.

Those indicators that supported the development of a community extracted from related literature were also found in the data. These indicators included shared goals and practice,
support, and feelings of belonging. In this study, the students of the cohort shared the communal goal of pursuing additional credential to their education certification. Through interaction, engagement, and alignment, the students showed that they supported each other’s learning, developed shared practice, and felt a sense of belonging.

Community building in this online cohort was a result of the interaction of students, instructors, and circumstances of this particular program. Interaction, engagement, and alignment among the students; assistance and facilitation by the instructors; course structure; and the use of a cohort model appeared to have had an impact on community building.

Although the students belonged to the same community, they revealed diverse experiences in it. They engaged in the community differently depending on their individual needs, desire, and situations. The individual students reported different concepts of a community, different levels of involvement in the community, and different way of connecting with others in the community.

INDEX WORDS: Online learning, Distance learning, Learning communities, Community
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To

MY PARENTS
For their Endless Love, Support, and Trust

To

MY HUSBAND AND DAUGHTER
For their Endless Love, Encouragement, and Patience

To

MY MAJOR PROFESSOR, Dr. LYNNE SCHRUM
For Her Tremendous Support for My Dissertation Research and in My Doctoral Efforts

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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIST OF TABLES</td>
<td></td>
<td>viii</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td></td>
<td>ix</td>
</tr>
<tr>
<td>CHAPTER I. INTRODUCTION</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Background</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Statement of the Problem</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Purpose of the Study</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Overview of Methods</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Significance of the Study</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Researcher’s Biases</td>
<td></td>
<td>7</td>
</tr>
<tr>
<td>Definitions of Terms</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>Summary</td>
<td></td>
<td>11</td>
</tr>
<tr>
<td>CHAPTER II. LITERATURE REVIEW</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>Overview</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>Constructivism</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>Distance Learning</td>
<td></td>
<td>16</td>
</tr>
<tr>
<td>Learning Communities</td>
<td></td>
<td>26</td>
</tr>
<tr>
<td>Conclusion</td>
<td></td>
<td>38</td>
</tr>
<tr>
<td>Summary</td>
<td></td>
<td>39</td>
</tr>
<tr>
<td>CHAPTER III. METHODS</td>
<td></td>
<td>40</td>
</tr>
<tr>
<td>Overview</td>
<td></td>
<td>40</td>
</tr>
</tbody>
</table>
Overview of Research Design ................................................................. 41
Pilot Study .......................................................................................... 43
Site and Sample Selection ............................................................... 44
Research Setting .............................................................................. 46
Participants ...................................................................................... 49
Data Sources and Collection Methods ...................................... 51
Data Analysis .................................................................................. 55
Validity and Reliability ............................................................... 65
Limitations ..................................................................................... 67
Ethical Considerations ................................................................. 68
Summary ........................................................................................ 69

CHAPTER IV. FINDINGS ........................................................................... 70
Overview ........................................................................................ 70
Themes ............................................................................................ 70
Case Summaries ............................................................................. 86
Summary ........................................................................................ 100

CHAPTER V. DISCUSSIONS, CONCLUSIONS, AND IMPLICATIONS .............. 102
Overview ........................................................................................ 102
Discussion ....................................................................................... 102
Study Conclusions ...................................................................... 126
Implications ................................................................................... 128
Summary ........................................................................................ 135

REFERENCES ...................................................................................... 137
APPENDICES .................................................................................................................................................. 144

Appendix A. The samples of syllabi for the courses .................................................................................... 145
Appendix B. A sample of a questionnaire for the 1\textsuperscript{st} round ......................................................... 151
Appendix C. A sample of a questionnaire for the 2\textsuperscript{nd} round .......................................................... 156
Appendix D. A sample of code book ............................................................................................................ 161
LIST OF TABLES

Table 3.1. Challenges and solutions: From pilot to main study .................................................... 44
Table 3.2. Course variation of the 2001 cohort of GCTWeb program ............................................. 49
Table 3.3. Data sources and research questions ............................................................................. 52
Table 3.4. The number of postings of each participant .................................................................. 60
Table 3.5. Hierarchy of categories and codes ................................................................................. 62
Table 3.6. Timeline for events and actions of a case ..................................................................... 65
LIST OF FIGURES

Page

Figure 3.1. A course sequence of the 2001 cohort of GCTWeb program.......................... 47

Figure 3.2. A student composition of the 2001 cohort of GCTWeb program....................... 48

Figure 3.3. Data reduction processes.................................................................................. 57

Figure 5.1. A model of community building: Sources and processes supporting a community 126
CHAPTER I

INTRODUCTION

Background

As the Internet has increased in use and popularity for all sorts of activities such as electronic communication (email and instant messaging) and online shopping, the use of the Internet in education has grown significantly as well. This growth is especially evident in higher education where courses and degree programs are being offered over the Internet and virtual universities are being constructed (Palloff & Pratt, 1999). This transition can be attributed to recent technological developments as well as to changes in the demographics of the student population interested in higher education today.

Increasingly large numbers of so-called nontraditional students, who are defined by age (older) and life situation (working), are seeking degrees (Hammonds, Jackson, DeGeorge, & Morris, 1997 cited in Palloff & Pratt, 1999). These nontraditional students are often motivated by external factors such as the need to upgrade their skills or a requirement for additional credits to maintain a license. Unlike the industrial era when skills needed were relatively fixed, today’s employers have growing demands for continually evolving skills. Distance learning via the Internet, namely computer-mediated distance learning, is becoming an important aspect of higher education because it meets the needs of these non-traditional students who pursue continuing education to keep their jobs in today’s information age (Brown, 2001).

Many institutions of higher education are turning to the use of the Internet to deliver courses to students at a distance who might not otherwise take classes (Palloff & Pratt, 1999). It is difficult to estimate what percentage of courses in higher education are currently being offered
online, because they vary in formats, from simply using email applications for interaction outside the classroom as an addition to traditional on-campus courses, to completely online courses with no on-campus meetings. Although many traditional face-to-face courses are including online aspects by using the course management functions provided by web-based learning environments such as WebCT and BlackBoard, there is a trend for more and more universities and colleges to offer completely online courses (Kearsley, 2000). Computer-mediated distance learning is apparently a means for a convenient and flexible learning for those who need it in this ever-changing society (Brown, 2001).

In addition to supporting nontraditional students, computer-mediated distance learning has become a popular method of education for traditional students. In computer-mediated distance learning, the traditional hierarchy is flattened and the power and control are redistributed (Schrum & Benson, 2000). Harasim (1996) mentioned that in successful online courses, students take on some of the roles that traditionally belong to the instructor. All students and the instructor have an equal opportunity to contribute to communication and thus in the learning process. This learner-centered approach might be one of the reasons why the traditional students sometimes prefer online courses to traditional on-campus courses. As well, another advantage of computer-mediated distance learning for the traditional students is the savings of commuting time to a campus because they can access the Internet from anywhere.

Unfortunately, although universities and colleges are currently scrambling to meet the needs of this new student population and other students with online options, there is little evidence that these institutions know enough about how to create effective learning environments via the Internet (Katz, 1999). Many online courses currently used at universities and colleges are little more than web-based databases where subject-domain data from courses
are stored. These databases usually provide lecture notes, course syllabi, links to relevant sites, and online articles and readings. Most of these courses also tend to include threaded discussion forums, real-time chatting, or conferencing applications (Kearsley, 2000).

However, student learning in online environments is not guaranteed simply by hooking up available applications to warehouse course components such as lecture notes, readings, and discussion boards; effective environments that facilitate learning beyond a traditional delivery model of instruction must be carefully designed and implemented. During the last several years, the need to build learning communities has gained attention from online educators who wish to provide students with learning experiences beyond simply interacting with a collection of Internet based activities (e.g., Hiltz, 1998; Moller, 1998; Palloff & Pratt, 1999).

**Statement of the Problem**

With the advent of network technology, the term learning community or learning communities often signifies the use of the Internet to link people together with similar goals or interests regarding education. Creating a simple web page that provides links to previously separate elements so that it binds them together with common interests can be a beginning step in establishing a learning community (Kearsley, 2000). However, creating learning communities via technology is more than simply linking a group of people together through email, web pages, or other tools; it involves supporting learners in their efforts to share common practice and to build interdependent relationships (Palloff & Pratt, 1999).

Shaffer and Anundsen (1993) see community as a dynamic whole that emerges when a group of people shares common practices and identity, is interdependent with each other, participates in joint activities, and makes a long-term commitment to ongoing viability. In such a community, people have a feeling of belonging and, when the community is applied in an
educational context, people possess shared expectations that their educational needs will be met through their commitment to shared goals (Rovai & Lucking, 2003). Palloff and Pratt (1999) argued that learning communities are something grown through the continual negotiation of how to participate together to advance their mutual learning among their members. A concept of learning communities, therefore, is considered rooted in a view of learning as collective development through interaction in a wider social context.

Many online educators argued that the development of a learning community is critical to the success of online courses (Harasim, 1990; Harasim, Hiltz, Teles & Turoff, 1995; Palloff & Pratt, 1999). One of the potential negative effects of online learning is the lack of social relationships that are often present in conventional classroom learning (Hiltz, 1998). As students enrolled in online courses work on their own, they feel alone, which often leads to dropping out. But the feeling of being the only student to show up for class may be overcome when students work together in a community where members support and encourage each other (Eastmond, 1995).

Research reported that online learners were not satisfied with their online learning experiences in terms of group interaction and discussion (Hallett & Cummings, 1997). A learning community supported by a collaborative design is more effective than working individually (Hiltz, 1998) in that it engenders high levels of interaction among its members if well designed and implemented. Moller (1998) stated that learning communities in online courses promote information exchange among their members, and encourage generative discourses, collaboration, reflection, and resulting knowledge building.

Therefore, the formation of a learning community sets the stage for successful learning outcomes and positive learning experiences of distance learners (Brown, 2001; Haythornthwaite,
Kazmer, Robins & Shoemaker, 2000; Moller, Harvey, Downs & Godshalk, 2000). In the same context, many online educators desire to go beyond delivering information to distance learners to building a community among them (Dede, 1996; Harasim, 1990; Harasim, Hiltz, Teles & Turoff, 1995; Hill, 2002; Palloff & Pratt, 1999; Swan et al., 2000). Despite this importance of communities, little is currently known. The concept of a community or a learning community is being examined and the strategies for community building are being investigated. However, the concept of a community, its importance and roles in online learning, the processes of community building, and the strategies and techniques for building communities are still evolving. Therefore, the identification of the very existence of a community in online courses and the identification of the factors supporting community building bear more investigation.

**Purpose of the Study**

The purpose of this study was to investigate sources and processes that impacted community building among distance learners enrolled in an online cohort program within the context of higher education. Sub-purposes were threefold. One was to identify the elements that indicated the existence of a community in the online cohort program. Another was to identify factors and issues supporting the creation and sustaining of the community in the online cohort. A third purpose was to describe processes of individual participants’ involvement in the community throughout the period of the cohort program. This study was guided by the following research questions:

1. How was the formation of a learning community indicated?
2. What events and circumstances impacted building and sustaining the community?
3. How did students’ involvement in the community evolve?
Overview of Methods

A qualitative case study design was used. The case was an online, four semesters-long, non-degree program based on a cohort model offered in a large southeastern university.

Data were mainly gathered by implementing two phases of open-ended questionnaires. The first questionnaire was implemented to the eight volunteering students from the cohort, and the second questionnaire was implemented to the four participants who were identified as information rich cases among the eight participants. Another source of data was the postings on the course bulletin boards made by the four participants during the last three semesters.

Data were inductively analyzed and interpreted, searching for themes and patterns, relying on Huberman and Miles (1994)’s data analysis process: data reduction, data display, and conclusion drawing and verification. Then, the four case summaries were developed focusing on the four participants individually, relying on Polkinghorne’s (1995) narrative analysis.

Significance of the Study

This study has practical implications for online educators. While research has addressed the necessity of communities in online learning environments and their benefits for distance learners, research specific to the best practices and suggestions for community building has recently been published (e.g., Hill, 2002; Hill, Raven & Han, 2002; Palloff & Pratt, 1999; 2001), not enough is known. Limited findings require more investigations on the strategies of how to build communities, as more findings can provide online educators with more options from which they can choose the best strategies for their own courses. Although this study did not focus on examining specific community-building strategies, online educators interested in community building among their students might benefit from the results of this study. Using the factors and issues supporting the creation and sustaining of a community identified in this study, instructors
of online courses can draw strategies of community building they can apply for their courses. In the same context, the factors can be used as design guidelines for designers and developers of online courses.

This study contributes to the literature base on online learning communities. Although considerable research has been done in two general areas including online learning and communities, research specific to the communities formed in online courses has not been widely conducted. In addition, while research addresses, for example, the concept of community defined by distance learners (Brown, 2001; Haythornthwaite et al.; 2000), the process of community building (Brown, 2001; Haythornthwaite et al.; 2000; Hill et al., 2002; Moller et al., 2000), the relationships between the community and learning achievement (Moller et al., 2000), and/or the best practices for community building (Hill et al., 2002), this research is different from other studies in two ways. First, this research focused on identifying the factors and issues impacting community building. In other words, this research discovered sources, events, actions, and processes that enabled community building among distance learners. Second, while other studies targeted distance learners from a single online course or multiple online courses, this research targeted distance learners from an online cohort program going through four semesters together. In addition, different from another cohort addressed in a study, all students of this cohort began and completed the program at the same time and took the same courses in the same sequence. This way this study adds new research to the existing literature on community building among distance learners.

**Researcher’s Biases**

In qualitative research, a researcher acts as a filter through which all aspects of the study, particularly data are interpreted. Therefore it has been a common practice to make clear
researchers’ perspectives. Further, this exposure of biases may help readers understand why the researcher arrives at certain decisions throughout the research process. For this purpose, I share my experiences and assumptions.

I have been in the field of instructional technology for about 11 years; 4 years of undergraduate, 2 years of master’s degree, 2 years of professional career, and finally since 1999 I have been engaged in doctoral work in an instructional technology program. During the time I worked as a professional at an institute which was particularly established for the purpose of promoting cyber education in Korea for K12 education through lifelong learning, I clearly saw the potential of the Internet for educational use. Further, I thought the Internet could be easily integrated in higher education settings because of the easy access to the Internet there, and the flexible curriculum of postsecondary schools. As such, while working on a doctoral degree, I focused on researching in the area of computer-mediated distance learning, or online learning, in higher education.

During the last decade, I have seen a shift in educational pedagogy, as well as the technological innovations in education. An article came to my mind that I read a few years ago, which unfortunately I failed to find, even with intense searching. In the article, the author made an interesting link between the development of educational pedagogy and the development of technology. The point was that their developments paralleled each other. I agreed with this view. I think there can be no objection to the fact that technological development influenced pedagogical change and vice versa.

Recently, one of the most frequently used computer technologies in education is the Internet. The Internet has a prominent capability to support all kinds of communications. The Internet has a potential to support knowledge co-construction through communications with
others in a wider social context. This shared knowledge construction through interaction is an important concept in supporting social aspects of learning described by Vygotskian social constructivism. Currently, because computer-mediated distance learning in higher education focuses on using the Internet as a communication tool, I believe that social constructivism is the most accepted view in this area. In social constructivism, students develop through interaction with others in social setting. This has significant implications for how to use the Internet as a communication tool. The Internet should be used as a way of connecting students to support their interaction. I believe one way of doing this is to build learning communities.

Finally, the past decade taught me a lesson about technology. As mentioned above, I basically agree that technological development not only affected pedagogical change but also has conversely been affected by it. However, I believe that technology is nothing more than a tool. Brunner and Talley (1999) argued that technologies expand the range of learning, teaching, and communication modalities available to students and teachers, but at bottom their only value is in helping them to learn well. I agree because sophisticated technologies are useless unless contemporary educators or educational theories pay attention to using them to enhance education. Rather, if the educators have a picture of an ideal application of technology in their minds, technological development will follow.

**Definitions of Terms**

For the purpose of the study, the following definitions are used.

*Bulletin board.* Bulletin board is a type of asynchronous computer conferencing “in which addressed messages or files are entered by users into a computer or network of computers (American National Standard for Telecommunications, archived 2002). Electronic discussion
board, course discussion board, and course bulletin board refer to the bulletin board in this dissertation.

Cohort model. For this dissertation study cohort is defined as a group of people who share common goals. In a program based on a cohort model, all students begin and complete the program at the same time and take the same courses in the same sequence.

Computer conferencing. Computer conferencing is a form of “communication between people at different geographic locations by means of text and graphic messages sent between interconnected computers” (High-Tech Dictionary Definition, archived 2002). Communication via computer conferencing occurs either asynchronously (time-delayed) or synchronous (in real time).

Computer-mediated distance learning. Computer-mediated distance learning is defined as distance learning via network technologies, such as the Internet and the World Wide Web. For the purpose of differentiating from traditional distance learning, which is based on correspondence through paper, audio and video broadcasting, distance learning via network technologies is labeled as computer-mediated distance learning or online learning in this dissertation.

Distance learners. Distance learners are those who are physically separated but are connected via networks for their communal learning goals. Distance learners refer to a group of students who are enrolled in a same online course or program.

Learning community. Learning community is defined as a group of people who share common goals and practice, collaborate on tasks and activities, build interdependent relationships, and have a feeling of belonging.
**Online discussion.** Online discussion is a form of computer conferencing. It occurs asynchronously via bulletin board. In this dissertation study, the term “posting” or “postings” is used to refer to the messages on the bulletin board. The postings are created by the participants of the course.

**Summary**

In this chapter, I presented the background of the problem, stated the purpose of the study, summarized methodology of the study, discussed the significance of the study, clarified researcher’s biases, and defined significant terms. In the next chapter, I examine the literature regarding theoretical foundations, distance learning, and learning communities.
CHAPTER II
LITERATURE REVIEW

Overview

This study has been guided by multiple areas from the literature. In this chapter, I present the multiple perspectives and empirical findings of recent studies from distance education, online learning, learning communities, and especially, online learning communities on which this investigation was based. Prior to presenting them, I briefly introduce constructivism as a philosophy in online learning, which therefore provides theoretical orientation for this study.

To locate related literature I relied heavily upon the EBSCOhost and ProQuest databases, the ERIC Index, and to a lesser degree, Current Contents, and Dissertation Abstracts. Search terms included “constructivism,” “constructivist (learning) theory,” “distance (learning or education),” “computer-mediated (learning or communication),” “(online or virtual) learning,” “community or communities,” “online learning (community or communities),” “(virtual or online) (community or communities),” “communities of practice,” “sense of community,” and “community building.” In addition, I used Social Sciences Citation Index to trace the use of the located works in other works.

This chapter consists of three major sections: constructivism, distance learning, and learning communities. In the beginning of every section, a brief overview of a section, including an organization of the section, and topics addressed in the section, is presented.

Constructivism

The development of computer and communication technologies encouraged innovative approaches to the correspondence model of distance learning. New technologies, such as the
Internet and the World Wide Web, enabled a movement from a delivery of traditional instruction toward resource-based, group-centered forms of online learning (Dede, 1996; Jonassen, Davidson, Collins, Campbell, & Hagg, 1995). These approaches within distance learning, in fact, correspond to the constructivist approaches currently underway in education in general. Educators nowadays state that constructivism is the predominant philosophy in education and particularly in online learning (e.g., Palloff & Pratt, 1999). This section of the review is devoted to introducing constructivism. Constructivism, as an epistemology and as a philosophy of learning, is briefly reviewed.

**Constructivism as an Epistemology**

Constructivism is based on a different set of assumptions about how people learn from those found in the objectivist epistemology.

Constructivists believe that our personal world is constructed in our minds. The mind is the instrument of thinking which interprets events, objects, and perspectives. The mind filters input from the world in the process of making those interpretations. The important epistemological assumption of constructivism is that knowledge is a function of how the individual creates meaning from his or her experiences (Jonassen et al., 1995, p. 11).

Learning in the constructivist sense is participating in and interacting with the surrounding environments with the purpose of creating a personal view of the world (Jonassen et al., 1995). In other words, learning is a process of sense making. This process assumes that individual learners arrive at their own meaning by accommodating new experiences within their existing knowledge structure. Therefore, constructivists believe that learning is affected by the context in which an idea is taught, as well as by individual learners' beliefs and attitudes (North Central Regional Educational Laboratory, archived 2002).
Constructivism as a Philosophy of Education

Constructivism can be traced to the work of Giambattista Vico, the philosopher of the eighteenth century, “who believed that humans can only clearly understand what they have themselves constructed” (Southwest Educational Development Laboratory [SEDL], archived 2002). However, the first major contemporaries are considered to be John Dewey and Jean Piaget, who developed a clear idea of constructivism as applied to classrooms and childhood development (SEDL, archived 2002).

Dewey believed that students learn by doing rather than by observing. He rejected the notion of education as repetitive and rote memorization. He believed that learning occurs only when students engage in real world, practical problems that are personally meaningful (Dewey, 1916/2001).

Piaget contributed to the development of cognitive constructivism. His theory explains children’s developments by explaining how and why their mental abilities alter. His theory consists of two parts: 1) developmental stages according to ages, which describe what children at certain ages can understand, and 2) a theory of cognitive development, which describes how children develop cognitive abilities. The premise of his theory is that when children interact with their environments, cognitive conflict occurs. This conflict creates cognitive disequilibria, which in turn, stimulates their cognitive development (Johnson & Johnson, 1996). In other words, children construct their own knowledge by manipulating and actively interacting with their surroundings, and then by accommodating this new experience within their existing knowledge structure.

Another influential contributor to constructivism is Lev Vygotsky. His theories have had an especially strong impact on a movement called social constructivism. Social constructivism is
related to the cognitive constructivist theories of Piaget and others about how children learn, but social constructivism emphasizes the social context of learning to a much greater degree. Among Vygotsky’s (1978) most widely accepted views is the theory that some sort of social venue is the origin of all intellectual growth. As a result of this theory’s influence, student learning is increasingly analyzed in a social context (Bonk & Reynolds, 1997).

An important principle of Vygotsky’s theories is the zone of proximal development. The zone of proximal development exists between two development levels, one level that is the actual development level already achieved by a learner and another level that is the potential level of development that can be achieved by a learner with help. This concept of the zone of proximal development, in particular, provides a rationale in building learning communities, in that interaction with peers in communities may encourage developmental processes which otherwise might not occur. According to Vygotsky, as well as other contemporary social constructivists, intellectual development emerges when individuals engage in reconciling and creating shared understanding through interaction with others. Through the negotiating process, knowledge is co-constructed within the surrounding community. Social constructivist models of learning are intended to advance an individual’s growth by enhancing modes of interaction among peers. Therefore, social constructivists encourage educators to seek ways to provide collaborative experiences for students. To attain this end, attention should be given to developing communities of learners where a group of learners work together and support each other to achieve shared learning goals.

This study investigates learning communities in online environments. As explained, they are based on dual platforms of technologies and constructivist learning theories (Jonassen, Peck,
and Wilson, 1998; Schwier, 2001). Thus, constructivism, more specifically social constructivism, provides theoretical foundation for this study.

**Distance Learning**

Distance learning has existed for more than a century, beginning with the emergence of correspondence courses in the mid 1700s. Printed materials were sent to the students by mail, completed by the students, returned to the instructor, graded by the instructor, and then returned to the students. This way, formal course credit could be completed, and eventually entire diplomas or high school degrees could be earned (Mehrotra, Hollister, & McGahey, 2001).

Along with the long history of distance learning, the forms of distance learning have evolved. These changes occurred when new technologies and innovations emerged. Distance learning has incorporated several technologies including radio, television, computer, and recently, network technologies. The network technologies, the Internet and the World Wide Web, are considered the newest form of distance learning today (Grubb & Hines, 2000). However, not all distance education programs at the higher education institutions are delivered via the Internet; rather, they may employ video conferencing technology or other traditional means of distance learning (Palloff & Pratt, 1999).

The focus of this chapter is exclusively on distance learning via the Internet within the context of higher education. Therefore, for the purpose of differentiating this form of distance learning from other traditional forms, it is labeled as computer-mediated distance learning or online learning throughout this chapter. This section of the review is devoted to exploring the literature on distance learning. Changes in the practice of distance learning, attributed to the innovations of technologies, are identified. Then, the development of computer-mediated
distance learning, and its rise to importance are examined. Finally, current issues in computer-
mediated distance learning are addressed.

**Changing Practices of Distance Learning**

Traditional distance learning has tended to be didactic. It was based on correspondence through passive media including paper, audio and video broadcasting, and it was most often conducted as independent experiences of individual students. With the one-way transmission of communication, the instructor delivered instruction to students. The students were supposed to process the information they received, with each student corresponding only with the instructor. Learning was usually structured, and the instructor determined the pace of learning (Sherry & Wilson, 1997).

Recent technological developments have significantly altered the practice of distance learning. These changes are documented as the following three categories: time-and-place-independence; two-way communication; and information rich context.

**Time- and place-independence: Flexibility**

Synchronous interaction occurs in real time. The typical form of this interaction is a traditional class held at a specific place with the physical presence of the instructor and students. However, distance-learning technologies allowed synchronous interaction to occur at different places. For example, a class was televised live to other locations, or recently a class was mediated via computer conferencing tools (Berge, 1999).

More recently, Internet communication tools such as an email and electronic discussion boards have allowed an “anytime and anywhere” format of communication with the additional flexibility of asynchronous communication. Learners work at their convenience of time, and further they learn self-paced (Berge, 1999). Thus, this form of distance learning alleviated the
need for a one-to-many instructional model and its corresponding instructor’s control over the speed and sequence of the learning process (Moller, 1998).

Again, the technological developments allowed interaction of students with the instructor and with others to be asynchronous or synchronous, providing more flexibility. The flexibility enabled time constriction due to a job or personal lifestyle, not to mention geographical barrier, to no longer be major concerns in taking classes. Now students can take computer-mediated distance learning classes, or online degree or non-degree, certificate courses anywhere they can go online and, in many instances, anytime they prefer (Mehrotra et al., 2001).

Two-way communication: Collaboration

With the synchronous and asynchronous Internet communication tools, another use of the Internet for distance learning is collaborative learning. The electronic discussion board and the chat room have become the backbone of many online learning environments today. Further, sophisticated web-based collaborative learning environments incorporate not only real-time, text-based conversation, but also videoconferencing and application sharing by which multiple users can collaboratively work in the same space (Sugrue, 2000).

General collaborative learning methods are amenable to the Internet for several reasons. First, a common structure for collaborative learning in a typical classroom is that students share their ideas with a partner or small group. This method can be easily applied to the online learning environments. Students might have partners to exchange their thoughts and ideas, by email, regarding questions raised from the instructor or their peers. In addition, the team might share their ideas by doing small group chatting and then posting their ideas on the bulletin board for the entire class to review (Bonk & Reynolds, 1997).
As well, the communication and collaboration capabilities of the Internet also allowed students to experience apprenticing situations. Experts and learning guides might be available through electronic mentorship, tutoring, formal or informal interactions, student work groups, and other access to network resources (Bonk & Reynolds, 1997; Harasim et al., 1995).

Information rich context: Voluntarily seeking more learning opportunities

The Internet allows students to access the phenomenal wealth of information stored in a myriad of computers in the network. Students can learn more by themselves beyond what the instructor provides. They have the freedom to explore knowledge, ideas, and learning environments outside the site where they start their learning. This unique opportunity was not readily available in traditional distance learning, such as using correspondence mail, or even using video recordings of lectures or CD-ROMs mailed to the students, because these media are closed systems whereby students can only access areas pre-determined by the instructor or designer. The vast information available through the Internet can provide multiple examples or viewpoints related to an idea that reflect a variety of contexts.

The information on the Internet, especially on the Web, is provided in hypermedia format. In a traditional distance-learning situation or in a classroom, the instructor represents ideas in a linear narrative form, which reveals the underlying structure of their ideas. This narrative basically comes from their personal understanding of the concepts. However, hypermedia technology like the Web enable the presentation of ideas in almost any mediated form (Harper, Hedberg, Corderoy & Wright, 2000). Therefore, learners can capitalize on information that is best matched with their cognitive and personal learning styles. Learners can create their own meanings and understandings of the phenomena they encounter while roaming through the multimedia resources on the Web.
Development of Online Learning Environments

People might think online learning, or computer-mediated distance learning, is very recent, perhaps born with the invention of the World Wide Web. However, the invention of computer conferencing, along with the invention of email, was the beginning of online learning. From the early 1970s when first-generation conferencing systems were invented and implemented, educational applications of online environments have gained continuous attention from educators, and have made much progress over the past two decades. Throughout the 1980s creative applications of computer conferencing were attempted in university courses. In addition, many other experimental applications, such as Solinet, one of the first wide-scale online labor education programs, and other varieties of professional development networks were launched (Harasim, 2001).

In the 1990s, with the advent of the Internet and browsing software, online learning became more popular, taking advantage of the easy accessibility of the Internet and the Web. In the beginning, the majority of classes that included online components used Internet-based tools such as email, Web pages, or computer conferencing tools. More recently, as Web-integrated systems have grown rapidly, many online courses are being offered through more sophisticated Web-based learning environments such as WebCT™ and Blackboard™. Indeed, the Web is becoming “a universal metaenvironment” for learning (Sugrue, 2000). A brief description about online learning environments using Internet and Web technologies appears below.

Internet-based tools

Internet-based tools for education include email, Web pages, asynchronous conferencing (e.g., an electronic discussion board), real-time conferencing (e.g., chatting), and file transfer. These tools were not initially developed for educational use but they were adopted for it. The
most commonly used Internet-based tools are email, electronic discussion boards, and Web pages. They provide means for sharing thoughts, questions and answers, and discussing anytime. In addition, the Web allows class materials or assignments to be published by the instructor or students.

**Web-based learning systems**

Web-based learning systems can be defined as the software applications that integrate two or more Internet-based tools within a Web-based interface. Sometimes, these systems even incorporate virtual reality interaction. The most distinguishing feature of Web-based learning systems is that they include common Internet-based tools within a single interface accessed using a Web browser, and they can be easily linked to any other Web-based. Among the most popular commercial Web-based learning systems are WebCT™ and Blackboard™. Many universities also have developed their own Web-based learning systems with various features available for users.

**Prevalence of Online Learning**

Along with the advantages of online learning or computer-mediated distance learning, technological developments for distance learning has encouraged many institutions of higher education to turn to the use of the Internet. They are offering computer-mediated courses to students at a distance who might not otherwise take classes (Palloff & Pratt, 1999).

The United States has seen an enormous expansion of offerings, particularly within public institutions of post-secondary education, where a recent study reported that 78 percent of public four-year and 62 percent of public two-year institutions offered some form of online courses (Center for Higher Education Accreditation, 1999). These online courses vary in their formats, from simply using email applications for additional interaction in addition to face-to-
face meetings in a traditional distance-learning situation, to complete online courses with no face-to-face meetings. However, there is a trend for more and more universities and colleges to offer complete online courses, non-degree certificate programs, and degree programs (Kearsley, 2000).

The transition to complete online offerings can be attributed to recent technological developments as well as to changes in the demographics of the student population interested in higher education today. Increasingly large numbers of so-called nontraditional students, who are defined by age (older) and life situation (working), are seeking degrees (Hammonds, Jackson, DeGeorge & Morris, 1997 cited in Palloff & Pratt, 1999). These nontraditional students are often motivated by external factors such as the need to upgrade their skills or a requirement for additional credits to maintain a license. Online learning provides access to continuous learning opportunities for these nontraditional students who live beyond commuting distance of a campus (Mehrotra et al., 2001).

The increase in numbers of nontraditional students can be understood in a broader context of today’s society. Unlike the industrial era when skills needed were relatively fixed, today’s employers have unavoidable demands for continually evolving skills (Brown, 2001). The growing complexity of most occupational environments, as well as the increased complexity of the occupations themselves, requires today’s employees to keep up with their competition and to advance in their occupations (Mehrotra et al., 2001). Thus, online learning is becoming an important aspect of higher education because it meets the needs of these nontraditional students who pursue continuing education to keep their jobs in this ever-changing society (Brown, 2001).

In addition to nontraditional students, online learning has become a popular method of education for the traditional students as well. Online learning provides the opportunity to flatten
the traditional hierarchy and redistribute power and control in ways that were previously not possible (Schrum & Benson, 2000). Harasim et al. (1995) mentioned that in successful online courses, students take on some of the roles that are traditionally considered the instructor’s. All students and the instructor have an equal opportunity to contribute to communication and thus in the learning process in online learning environments. Sherry and Wilson (1997) describe a “transformative communication” that can occur in online learning. They argued that throughout the process of communication, both students and the instructor are transformed as learners, and they teach each other. This way, students and the instructor share their responsibility for their learning. This learner-centered approach is the reason why the traditional students sometimes prefer online courses to traditional on-campus courses. In addition, another advantage of online learning for the traditional students includes the great flexibility in their schedule due to the ability to combine synchronous and asynchronous communications. Finally, students report a savings in commuting time to a campus because they can access the Internet from anywhere.

**Issues in Online Learning**

In spite of the continuing growth of online learning or computer-mediated distance learning, concerns have been raised regarding students’ dissatisfaction with online learning experiences. A frequent assertion is that this type of learning lacks group interaction that is usually present in classroom learning (Mehrotra et al., 2001). Research also provides evidence that distance learners are not satisfied with their learning experiences in terms of group interaction and discussion. For example, Hallett and Cummings (1997) observed a small computer-mediated undergraduate course. The instructor in this course reported that students did not interact much via computer-mediated discussion. Students did not post beyond the required number of messages, and expressed negative perspectives to posting messages in this
type of discussion. They reported that they felt lost in cyberspace because there were no visual
cues and no immediate responses to their comments.

Others argue that online learning can be structured to facilitate group interactions in a
way that might equal those of traditional classrooms, even if the means of interactions are
different (Mehrotra et al., 2001). Various collaborative activities including debates, case studies,
discussion groups, and project groups can be used to promote peer interaction in online learning
environments. For example, Eastmond and Rohfeld (1993) showed positive outcomes of
collaborative activities in online courses. They examined graduate courses in the Adult
Education Program at Syracuse University, which were specifically geared to the working adult.
The instructor and students could send messages to each other, hold class discussions, and carry
on small group activities. In the middle and at the end of the course, students’ opinions about the
courses were elicited through several online surveys, in-person discussions, and questionnaires.
The overall response to this online format, as well as to the courses themselves, was positive.
More than half of the students responded that the course engaged them in group interaction and
meaningful dialogue. From these findings, Eastmond and Rohfeld concluded that the
collaborative format of these courses produced greater intellectual exchanges among students
and increased students’ satisfaction.

In addition to enhancing group interaction, collaboration may reduce feelings of isolation
that often leads distance learners to dropout (Hiltz, 1998; Hughes, Wickersham, Ryan-Jones &
Smith, 2002). In fact, this sense of alienation that is attributed to a lack of social relationships
present in classroom learning has been indicated as another potential negative impact of online
learning (Hiltz, 1998). Harasim et al. (1995) argued that the creation of social bonds has
important affective and cognitive benefits for students’ learning both in online and face-to-face
learning environments. Wegerif (1998) found that individual success or failure in an online course depended on the extent to which students were able to overcome ‘feeling of being outsiders’ and move to ‘feeling of being insiders,’ namely overcome the sense of alienation and move to feeling part of a community. In his ethnographic study of a three month-long online class using conferencing system, he interviewed students and he also analyzed online discussions as well as students’ email messages. Based on the data, he concluded that students felt part of a community once they actively participated in interaction and collaboration with others.

From the research so far, it is clear that collaborative learning approaches can be effective in designing online learning environments, because they promote group interaction and reduce feelings of isolation as indicated above. Hiltz (1998) agreed to this argument suggesting that an emphasis on collaborative learning can overcome some of the weaknesses of online learning. She argued that collaborative learning designs are considered more effective for online learning than working individually. Fortunately, the current technological developments allow online learning environments to be constructed to support group collaboration. However, creating the environments where collaboration can occur doesn’t happen automatically (Hughes et al., 2002). Simply integrating Internet technologies such as email, electronic discussion boards, and Web pages in an online course does not guarantee collaborative learning. Rather the environments that facilitate learning beyond a traditional delivery model of distance learning must be carefully designed and implemented. Toward that end, the thoughtful creation of a learning community is necessary within online higher education. Recently, developing learning communities has gained more and more attention from online educators (e.g., Harasim, 1990; Harasim, Hiltz, Teles & Turoff, 1995; Moller, 1998; Palloff & Pratt, 1999; Swan et al., 2000). Learning communities are explored more fully in the next section.
Learning Communities

Learning communities refer to collections of individuals who are tied together through a set of shared purposes and ideas related to education (Kowch & Schwier, 1997). Interest in the role of learning communities in education has been growing rapidly in the last five years. The interest mainly grew from two challenges, as addressed above, the lack of social relationships and dissatisfaction with group interaction, which online educators face today. In addition, the move of many postsecondary schools toward increased use of the Internet in education has boosted the interest in learning communities. Communities or learning communities now represent a concept that has become a goal of many involved in developing online educational environments.

In exploring online communities, I first define a community, and then I identify characteristics of learning communities. Next, reasons why building a learning community is important in online learning environments is addressed, including the roles and benefits of learning communities. Finally, issues in establishing a community for distance learners are explored.

Communities as an Evolving Concept

Shaffer and Anundsen (1993) described community as a dynamic whole that emerges when a group of people share common practice and identity, are interdependent with each other, participate in joint activities, and make a long-term commitment to ongoing viability. In such a community people share, work, and live collaboratively; thus, the entrance to the community assumes a conscious commitment to the group (Palloff & Pratt, 1999). Palloff & Pratt (1999) mentioned:
In the past the concept of differentiation and membership were relevant factors in the development of community. People seeking commonality and shared interests formed groups and communities in order to pursue the interests that distinguished them from other groups. In addition, communities were generally considered to be place-based. The small town or neighborhood in which you lived was your community. (p. 21)

As such, when we think of a community, we tend to confine our view to something that emerges among those who live close to each other and share companionship via face-to-face interaction. However, the development of computer communication technologies has made a significant change in the concept of place-based communities. Electronic mail, news groups, and computer conferencing supported the development of discourse communities in cyberspace, that is, groups of individuals who share and discuss common interests and goals via networks communicate electronically within an electronic community (Jonassen et al., 1995).

In the early 1990s, Rheingold (1994) presented an evolving concept of the virtual community, stating that virtual communities emerged from an unpredicted intersection of humanity and computer technology. He indicated that virtual communities are cultural aggregations that emerge when enough people meet each other often enough in cyberspace over time, in which human relationships form and data are displayed by the people who use computer technology. Cohill (1997) agreed with him maintaining that a virtual community devotes its resources to connecting people in new ways, sharing information, and accumulating interpersonal relationships (cited in Schwier, 2001). The development of a virtual community was an effort toward maximizing communications among the alienated people by connecting on a human level in cyberspace. In this community, people sustain close ties with others not face-to-face but through online discussion and email. What defines a community in cyberspace thus
is the activity people do together, rather than where they do that activity (Haythornthwaite et al., 2000).

Among different sources addressing a community, Hill (2002) observed that a definition by Komito (1998) could encompass a multitude of variations of this concept. Indeed, Komito’s definition seems to capture the evolving concept of a community. According to Komito, “A community is not fixed in form of function, but is a mixed bag of possible options whose meanings and concreteness are always being negotiated by individuals, in the context of changing external constraints” (Komito, 1998, p.105).

Characteristics of Learning Communities

According to the above definitions, a community is seen as something that develops through the negotiation among individuals who share practice, activities, and interdependence. However, the definition in itself seems to lack some details in explaining what comprises a community. To expand understanding of learning communities, Schwier’s (2001) and Wenger’s (1998) perspectives are reviewed.

Schwier (2001) maintained that as “communities are a natural extension of who we are as social animals” (p. 6) they have existed everywhere people gather for any reason. He identified several attributes present particularly in virtual learning communities: (1) shared history and culture; (2) sense of shared identity; (3) interdependence and reciprocity; (4) intermediate associations; (5) social participation; (6) supportive norms, beliefs, and practice; (7) technology-based; and (8) learning. Virtual learning communities emerge when a group of people share culture, beliefs, and practice. With this sharing, members of a community develop their identity and accumulate relationships over time. In doing so, communication and participation act as the most important catalysts of virtual learning communities.
Wenger (1998) argued that once people get together habitually, they identify a boundary, and thus recognize their members and non-members. He stated that when the members hold certain levels of knowledge of a domain of shared interests, the community takes a different form from a club of friends. In this community, members engage in joint activities and support each other in pursuing their interests in the domain. In doing so, they establish normative standards of behavior, adopt a common language, develop roles based on their various expertise, and form relationships. Over time, they develop a shared understanding of their domain and build a sense of common identity. They become communities of practice (Wenger, 1998; Wenger, McDermott & Snyder, 2002).

Communities of practice are everywhere, at work or at school. As stated by Wenger (2001), a community of practice is “a group of people who share an interest in a domain of human endeavor and engage in a process of collective learning that creates bonds between them” (p. 2). A learning community is one kind. It fits very well into the definition of a community of practice by Wenger (2001) in the sense that a learning community is a culture of learning in which a group of people are involved in the collective and individual effort to reach shared understanding of their domain (Bielaczyc & Collins, 1999; Hill, 2002). This view is also supported by Palloff and Pratt (1999). They stated that a learning community is something evolving through the continual negotiation of how to participate together to advance their mutual learning among its members. In the following, adopted from Wenger’s (1998; Wenger et al, 2002) basic structure of communities of practice, characteristics of learning communities are explained: a domain of knowledge, a community of people, and the shared practice.
Domain

The domain of a community provides a common ground to its members on which they begin pursing their shared interests. Without commitment to the domain, a community is no more than a group of friends. Membership therefore entails a minimum level of knowledge of their domain, and obliges commitment to the development of knowledge of their domain (Wenger, 1998; Wenger et al, 2002). A collective knowledge base of a community is continually negotiated anew along with the evolution of the community (Barab & Duffy, 2000).

Community

A strong community cultivates sound interdependent relationships based on mutual respect and trust. It encourages a willingness to ask questions and provide feedback (Wenger et al, 2002). The importance of the community element has been emphasized by several researchers (e.g., Dede, 1996; Harasim et al., 1995; Haythornthwaite et al., 2000; Rovai, 2001; Wellman, 1999). Researchers have argued that a strong feeling of community increases willingness to share information, passion to support each other, and collaborative efforts to complete joint activities.

Among those who support the importance of feeling community is Rovai (2001) who identified four components of classroom community. *Spirit* is the feeling of belonging, which means recognizing community membership, accepting group identity, and developing friendship. *Trust* is the feeling that community can be trusted and the feedback will be constructive, with which comes the willingness that members will expose gaps in their learning and respond in supportive ways. *Interaction* is the feeling that mutual learning and familiarity result from interactions regardless of whether it is completing tasks or building relationships. *Learning* is the feeling that knowledge and meaning are co-constructed within the community. Given that
shared feelings make up community, sharing interests is not enough for people to form a community; rather people form communities through ongoing interactions, both intellectual and social, which lead people to consensus on what they are. Therefore, as noted, Schwier (2001) stated that ‘communication’ is the most important catalyst in forming community.

**Practice**

Practice means “a set of socially defined ways of doing things in a specific domain: a set of common approaches and shared standards that create a basis for action, communication, problem solving, performance, and accountability” (Wenger et al, 2002, p. 38). It includes all kinds of knowledge that members have developed together. As well, it represents a unique way of interacting with each other, a distinctive perspective on problems, a common flow of thinking, and a shared standard for behaviors (Wenger et al, 2002). Such rules of behavior and a shared repertoire form a group identity, and have community members accustomed to how to behave and predict the behavior of others. Thus, established rules help community members feel comfortable in their community, resulting in good use of their time investment and trust building (Haythornthwaite et al., 2000). Successful practice development depends on joint activities among members, thus it goes hand-in-hand with community building (Wenger et al, 2002).

In light of the characteristics that comprise learning communities, as well as the definitions of communities mentioned above, a learning community may be defined as a group of people who share common goals and practice, collaborate on tasks and activities, build interdependent relationships, and have a feeling of belonging. The definition of learning communities is also appropriate for defining communities because learning communities and communities share characteristics listed above, except that learning communities have specific learning goals while other communities can have a variety of different goals. Again, learning
communities are one kind among diverse types of communities. In any communities, the most important means through which the community forms is interaction, as ongoing interactions among members lead to community building which, in turn, contributes to the development of successful practice as well as the expansion of a domain knowledge base.

Community Building among Distance Learners: Role and Benefits

As stated throughout this chapter, many online educators have argued that community building among distance learners is critical to the success of online learning (Dede, 1996; Harasim, 1990; Harasim et al., 1995; Haythornthwaite et al., 2000; Palloff & Pratt, 1999; Swan et al., 2000). Among those educators is Moller (1998) who identified the basic function of learning communities in online environments. He maintained that a learning community evolved within a distance-learning course provides students with intellectual exchange and social reinforcement. He suggested that learning communities in a distance-learning class function similar to traditional communities in the sense that they promote information exchange between members of the community and thus encourage generative discourse, collaboration, reflection, and the resulting knowledge building.

Moller claimed that they provide distance learners with a social membership within the otherwise isolating experience of being online. With this membership, the community can satisfy the basic human needs for self-esteem. Self-esteem is one of the internal conditions that facilitate a learner to be ready and able to learn.

In his follow-up study with colleagues (Moller et al, 2000), he examined whether a community affects learning achievement. He and his colleagues studied graduate students enrolled in a semester-long asynchronous distance-learning class designed to engage students in collaborative learning. Twelve students were arbitrarily assigned to one of three four-person
teams to solve four different case studies. The analysis was conducted of the factors that affected community building, such as quantity of comments made by student teams, quantity of community building types of comments made by student teams, degree of perceived responsibility of individual team members, and methods by which each team formed a community. Further, possible relationships of factors to learning outcomes, indicated by case scores of the teams, were explored.

Using descriptive data, the researchers observed that more peer interaction, as indicated by messages in electronic discussion boards, resulted in increased learning. From interview data, they found that students’ feelings of being part of a community varied between teams. Based on students’ responses, they concluded that feeling part of a community was caused by team members’ senses of responsibility, and differences in sense of responsibility contributed to the differences in performance. They observed that the team that usually performed the best in case studies expressed the strongest sense of responsibility to their fellow team members. The findings showed that building a community among distance learners resulted in increased social and intellectual engagement of students in the learning process, and that it, in turn, resulted in improved learning outcomes (Moller, Harvey, Downs & Godshalk, 2000).

Harasim (2002) emphasized the importance of intellectual exchange in online communities. She maintained that the quality of discourse could attract people to any communities, even though social relationships comprise an important part of the bond of a community. Based on her research and practical experiences, Harasim (2002) developed a model of conceptual changes via online discourse.

At the idea generating stage, individual participants contribute their ideas and opinions on the topics to the shared space. Through the process of brainstorming, the participants
begin to relate with each other’s ideas. This leads to the second stage of the discourse-
idea linking. At this stage, the participants begin to agree or to disagree, clarify and elaborate, and reflect and organize their own and others’ ideas and positions. As a result, discrete ideas start to come together; many smaller ideas become a few big ones; individual understandings grow into group-shared understanding. At this point, the discourse is ready to advance to the next level-intellectual convergence. At this third stage, the group actively engages the co-construction of the knowledge based on shared understanding. (Harasim, 2002, p. 185)

While Harasim (2002) was more focused on the function of intellectual exchange of a community, Rourke, Anderson, Garrison, and Archer (2001) highlighted the role of social membership in an online learning community. They proposed a model that emphasizes the importance of developing social presence in learning process. In this model of a community of inquiry, learning occurs through the interaction of three core components: cognitive presence, teaching presence, and social presence. Cognitive presence is the degree to which learners in a community are able to construct meaning through communication. Teaching presence includes designing and managing learning sequences, and facilitating active learning. Social presence is the degree to which people project themselves socially and affectively into their society. They argued that social presence supports the cognitive and affective learning by sustaining group interactions (Garrison, Anderson & Archer, 2000).

Based on ongoing intellectual and social connections among the members of a community, they develop relationships over time. Palloff and Pratt (1999) provided a rationale for forming relationships in a community with their statement that community building in online environments would bring about a new sense of intimacy and connection. The strong
interpersonal ties among community members, in turn, increase the flow of information and a sense of well being (Haythornthwaite et al., 2000). Moreover, becoming a member of a learning community was reported to bring positive outcomes such as increased student satisfaction in the course, enhanced retention of the coursework, and increased learning and performance (Brown, 2001; Moller et al, 2000).

Issues and Challenges in Building Communities among Distance Learners

While the above-mentioned research indicates that successful learning communities contributed to the improved learning outcomes for distance learners, there were other studies reporting difficulties in community building. For example, Richardson and Turner (2001) argued that there was no learning community in virtual learning environments. From the evaluation of an interactive communication system used in virtual learning environments, they found that students’ perceptions and ways of virtual communication were different from those in face-to-face communication. Students described virtual communication as lacking in visual, kinesthetic, and sound cues, and as occurring asynchronously. As a result, they reported that virtual communication failed to have “shared socio-linguistic conventions” to guide group discussions. Findings suggested “effective communication is not happening virtually, which is leading to fragmentation of a learning community with feelings of isolation and confusion among some students.” As a solution to the ineffective communication in virtual learning environments, Richardson and Turner (2001) suggested establishing a set of instructor guidelines to facilitate online discussions. It was clear that they acknowledged the role of instructors in building a community in online learning environments.

Another study by Richardson and Turner (2000) also indicated ineffectiveness of virtual discussions in those same learning environments. In this study, a conversation analysis showed
that discussions were being used for “housekeeping,” setting questions and providing instructions, with little evidence of actual ‘discussion’ as would be expected in a face-to-face seminar. It was evident that because instructors used online discussions for “housekeeping,” and as methods of course management, students followed these models. As a result, students did not contribute much to the discussions and were not engaged in meaningful discussions. They reported that they felt less part of a learning community. Studies implied that successful community building in online learning environments would depend on the skill of instructors in moderating the online discussions and nurturing the sense of community that participants feel.

Furthermore, researchers showed that a community did not happen by itself even though a community formed successfully in online courses. They addressed challenges that online instructors and students would tackle while trying to build a community. Among those are Hill, Raven and Han (2002) who highlighted the goal and responsibility of both instructors and students in building a community in online learning environments. In their study on two graduate level web-based courses, they examined specific strategies and techniques to facilitate community building both from the instructor and the student perspective. Data were collected from a variety of sources including surveys, interviews, observations, and content analysis of discussion transcripts. Findings showed that community-building strategies implemented by instructors or designers during a course design (infrastructure strategies), and other strategies employed by instructor and students for community building during a class (interaction strategies) could lead to enhanced communication during the class, which, in turn, would lead to the emergence of a community.

In addition, Brown (2001), based on her study on three graduate level online classes, noted that a community was present for some students and not for others. Community building
happened only for those who wanted a community to occur. She observed that the level of community students experienced varied even though they were in the same class and most of them described the class as having a lot of community. While describing three levels of community: having online friends with whom participants interacted regularly; feeling part of an online classroom community; and enjoying camaraderie, she noticed that levels of community experienced by individual students were closely linked to levels of engagement in the class. Students who developed a higher level of community showed a higher level of engagement in the class. Likewise, as students increased a level of participation and engagement in the class, they felt an increased level of community. This happened because those who felt a high level of community placed a high priority on the class, made a significant time commitment to it, and longed for relationships with others. From this study, it was implied that successful community building in online courses would depend on the individual student’s desire and aptitude to form a community.

Haythornthwaite et al. (2000) reported a similar finding in their study of graduate students from an online degree program, which was based on a cohort model including the first on-campus course and the following online courses. In this study, they observed that individuals who felt less comfortable and who felt less safe in the community were those who felt they contributed less to the community and those who did not actively engage in reciprocal exchanges among participants. Other than the responsibility of students themselves for community building, results also put emphasis on technologies. Findings indicated that the technologies, both the computer technologies and the ways in which the courses were structured, provided opportunities for interactions that contributed to the creation and support of a community. Studies showed that community building in online courses was not an easy task; rather it
depended on joint efforts of instructors, designers, and students, and at the same time it was influenced by technologies and inclinations of individual participants.

To summarize, community building does not happen unless an instructor and the students give their efforts to community building. Researchers so far informed online educators that even though a community could be successfully established and contribute to enhanced learning in online learning environments, the community-building venture should be seriously designed and implemented.

**Conclusion**

This literature review provided support and suggestions for establishing learning communities in online environments. From the examples of successful development of learning communities examined so far, it was clear that learning communities could be established within the context of a significant educational enterprise, such as a semester long online course or among a group of students enrolled in the same educational program in higher education. Further, the success of a community obviously depended on instructors and students, their interpersonal skills, and technology.

Given that a learning community, once established, is known to contribute to the enhanced learning outcomes and experiences for distance learners, the identification of a learning community, and understanding the characteristics necessary to create and sustain one, represent a challenge to all educators interested in online learning. Research is needed to provide a more informed view of processes and sources that impact on community building among distance learners.
Summary

In this chapter I presented the multiple perspectives and empirical findings from distance and online learning, and learning communities on which this investigation was based. I summarized the changes in the practice of distance learning, provided an overview of the development of online learning, and identified problems and issues related to online learning in higher education. In addition, I summarized the characteristics of learning communities, investigated the roles and benefits of learning communities in online learning environments, and identified issues and challenges in establishing a community for distance learners. In the next chapter, I present the research design and methodology that I employed during the investigation.
CHAPTER III

METHODS

Overview

The purpose of this study was to investigate sources and processes that impacted community building among distance learners enrolled in online cohort program within the context of higher education. Sub-purposes were threefold. One was to identify the existence of a community in the online cohort program. Another was to identify factors and issues supporting the creation and sustaining of the community in the online cohort. A third purpose was to describe processes of individual participants’ involvement in the community throughout the period of the cohort program.

Therefore, this study first looked for indications of the formation of a learning community in this cohort. Then, it explored the sources and processes leading to a community. The research was guided by the following three questions:

1. How was the formation of a learning community indicated?
2. What events and circumstances impacted building and sustaining the community?
3. How did students’ involvement in the community evolve?

Following this short introduction of the study, this chapter is devoted to discussing research design, research site and sample selection, and data collection and analysis methods. Then, it addresses issues of validity and reliability, limitations and ethical considerations of the study.
Overview of Research Design

A qualitative case study design was used. The goal of qualitative research involves understanding the phenomenon under study from the participants’ perspectives (Merriam, 1998). Qualitative researchers thus “study things in their natural settings, attempting to make sense of, or interpret phenomena in terms of the meaning that people bring to them” (Denzin, 2000, p. 3). In addition, in qualitative research, the researcher is the primary instrument for data collection and analysis (Merriam, 1998). Given the research goal of this particular study was to understand how community building happened in an online cohort, this study sought perspectives or stories of participants. While seeking participants’ views, I, as a researcher, tried to be open to data gathering processes so that I would be able to maximize opportunities to gather meaningful information. Additionally, I provided my own lens through which participants’ descriptions were filtered. The end product of this study was one of interpretations by me of the phenomenon under study. Due to the emphasis on meaning drawn from the participants, as well as on a researcher’s role in this particular study, a qualitative design was appropriate. Besides, qualitative research “takes an inductive orientation to analysis” (Merriam, 1998, p. 11). This means that the findings emerge from the data in qualitative research, in contrast to quantitative studies in which data is used to deductively prove or disprove an expected finding. A qualitative design was appropriate for this particular situation because this study remained open-ended with the goal of exploring and describing, rather than attempting to measure statistical evidence for or against an expected finding.

Merriam (1998) maintained that discovering and understanding a phenomenon or a process is the most common form of qualitative research in education. In this type of research, she noted, the analysis typically “results in the identification of recurring patterns in the form of
categories or factors” (p. 11). Further, given that the goal of this study was to uncover the interactions of significant features typical in this particular online cohort, a qualitative case study design was most appropriate.

A qualitative case study design attempts to discern general patterns from specific examples. The goal of a case study is to understand a single unit or bounded system in depth and in its natural setting (Punch, 1998). This particular study met the goal of case studies. I, as a researcher, tried to capture the complexities of a single phenomenon or entity and studied things in their natural setting. This study focused on holistic description and explanation about what was going on in the phenomenon under study to gain in-depth understanding of it. Merriam (1998) mentioned that qualitative case studies could be characterized as particularistic, descriptive and heuristic. Particularistic means that case studies “focus on a particular situation, event, program or phenomenon” (p. 29). Accordingly, one of the goals of case studies is to give readers suggestions about what to do and what not to do in situations similar to those being studied. Descriptive means that the result of a case study is a “rich thick description of the phenomenon under study” (p. 29). This way, case studies can present multiple factors contributing to the phenomenon under study from multiple perspectives. Heuristic means that case studies “illuminate the reader’s understanding of the phenomenon under study” (p. 30). For that reason, case studies include explanations of why, what, and how the phenomenon was studied.

Finally, one of the disadvantages of qualitative research designs is the lack of set procedures or protocols that can be followed. To compensate for this limitation, it is recommended that a researcher describe research choices, procedures, and processes along with the rationales behind them so that readers should determine the validity of the research.
Pilot Study

I conducted a pilot study in the fall semester of 2001 using a single case study approach. The case was a semester-long online graduate course titled EPSY 7250, which was part of the 2001 cohort of GCTWeb (Gifted, Creative & Talented Training on the Web) program. EPSY 7250 was the second course among a series of four courses of GCTWeb program leading to the Gifted In-Field endorsement. In this online course, I explored possible factors that impacted the development of a learning community among distance learners.

Postings on an electronic discussion board were used as my primary data source. In addition, an open-ended questionnaire was also used as a supplemental source of data. Data were analyzed using a combination of quantitative and qualitative research methods. Content analysis was chosen as a method of analyzing the postings on the electronic discussions board, and the constant comparative method of analysis was chosen as the method of analyzing the open-ended questionnaire.

Some factors influencing the development of the learning community were identified: the way this online course was structured, for example, types of tasks students were asked to complete in this course, and the way the instructor facilitated discussions. Depending on types of tasks that students were required to complete, pattern and frequency of student interaction varied. While working on collaborative tasks such as role-playing, students actively interacted and developed collective knowledge of their topics by sharing question and answer activities. The instructor in this class supported the development of a learning community in two distinct ways. First, she established goals and tasks that required the students to work together, discuss the readings and cognitive materials, and set the tone for the interactions. Second, she (and the
co-instructor) provided leadership in interaction, and encouraged an ongoing pattern of assistance for the students.

Despite the valuable findings, the pilot study revealed some weaknesses concerning methodology including site selection, and data collection and analysis methods. Table 3.1 shows the challenges that emerged from the pilot and solutions chosen for the dissertation study.

**Table 3.1. Challenges and solutions: From pilot to main study**

<table>
<thead>
<tr>
<th>Challenges emerged in pilot</th>
<th>Solutions for this study</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Site Selection</strong></td>
<td></td>
</tr>
<tr>
<td>A semester-long online course</td>
<td>Four semester-long online endorsement program based on a cohort model</td>
</tr>
<tr>
<td>○ Challenge: Too short a period for community building</td>
<td></td>
</tr>
<tr>
<td><strong>Data Sources</strong></td>
<td></td>
</tr>
<tr>
<td>Postings as a primary source of data &amp; Open-ended questionnaire as a supplemental source of data</td>
<td>Twofold implementations of different open-ended questionnaires as primary sources of data &amp; Postings as secondary source of data</td>
</tr>
<tr>
<td>○ Challenge: Lack of information about students’ perspectives related to and reflections on their experiences with community building</td>
<td></td>
</tr>
<tr>
<td><strong>Data Analysis</strong></td>
<td></td>
</tr>
<tr>
<td>Using content analysis with established categories to analyze postings</td>
<td>Open-coding for all data including questionnaires and postings</td>
</tr>
<tr>
<td>○ Challenge: Need to be open to emerging categories and themes</td>
<td></td>
</tr>
</tbody>
</table>

**Site and Sample Selection**

In qualitative case studies, two levels of sampling are usually necessary: first, selecting the case to be studied and second, sampling within the case (Merriam, 1998). Regardless of any levels of sampling, qualitative samples tend to be purposive rather than random (Miles & Huberman, 1994). Patton (1990) maintained that purposeful sampling uses “information rich...
cases for study in depth. Information rich cases are those from which one can learn a great deal about issues of central importance to the purpose of the research” (p. 169).

In doing a purposeful sampling, a researcher is advised to establish criteria to guide the sampling process (Merriam, 1998). Accordingly, the following criteria were used in this particular study. First, totally online delivery was considered. In case of partially online courses, for example, in a hybrid course using online seminars added on a face-to-face class, social relationships that are usually present in conventional classrooms may be favorable to a community-building process (Hiltz, 1998). As such, partially online or hybrid courses were excluded. A second criterion for choosing the research site was time-span, specifically in this case, the duration through which a group of people took online classes together. A community is known to emerge when a group of people engages in shared activities for an extended time period (Rheingold, 1994; Shaffer & Anundsen, 1993). As such, long-term online courses based on a cohort model were preferred.

Thus, I chose the 2001 cohort of GCTWeb, Gifted, Creative & Talented Training on the Web, a term I use to describe an online Gifted In-Field endorsement program provided by a large southeastern university. This program included four online courses to be completed in sequence. Throughout four semesters, however, there were two groups of students who were allowed to take classes. One group was comprised of students who enrolled in the cohort, pursuing a gifted in-field endorsement added-on to their teaching license; the other group included graduate students taking one or more of the endorsement classes as part of their program of study. According to the second criterion mentioned above, those graduate students were excluded from my potential samples.
Ultimately, fifteen students who completed the 2001 cohort of GCTWeb and added gifted In-Field endorsement in summer 2002 were considered as my potential participants. Volunteers were solicited for the first-round data collection. This way, eight of the fifteen were recruited. Later, four participants were purposefully selected for the next round of data collection, as initial data analysis identified them as “information rich cases” (Patton, 1990, p. 169).

**Research Setting**

The GCTWeb program consisted of four courses based on a cohort model, typically offering one course in a semester and thus requiring students to stay in a cohort for four semesters. The GCTWeb was a totally online, non-degree program delivered using WebCT. It particularly targeted individuals who hold a bachelor's degree and need and/or desire flexible delivery, on-line courses due to: work, academic, or personal responsibilities which create barriers for travel to campus; or limited course offerings in the local area.

In describing courses of the GCTWeb program, as well as instructors and students of the program, I gave them fake numbers and prefix for sake of convenience, and pseudo names for sake of confidentiality.

The 2001 cohort of GCTWeb began in the spring semester of 2001 by offering its first online course, Characteristics of Gifted Children and Youth (GCTW 7100). The same first online course, GCTW 7100, was repeated in the summer 2001 as requested by recipients who missed the first spring class. The second course, Curriculum and Program Development for the Gifted (GCTW 7200), commenced in the fall semester of 2001 for those who completed the first course in either spring or summer. The third, Strategies and Materials for the Gifted (GCTW 7300), and the last, Assessment of Gifted Children and Youth (GCTW 7400), continued during the spring and the summer semester of 2002. Figure 3.1 presents a flowchart of the 2001 cohort
of GCTWeb course sequence. Completion of the GCTWeb program of study would lead to Gifted In-Field Endorsement.

![Course Sequence Diagram]

**Figure 3.1.** A course sequence of the 2001 cohort of GCTWeb program

The GCTWeb program is a non-degree program either for graduate students who already have or are pursuing teaching certification and want to add gifted in-field endorsement; or for educators who are employed full-time and need coursework in this area to meet professional or academic goals.

The participants of the 2001 cohort of GCTWeb program were primarily educators who were employed full-time and need/desire coursework in this area to meet professional or academic goals. In addition, there were also other graduate students who were allowed to take one or more of the endorsement classes as an elective or part of their program of study, while pursuing their degree or teaching certification in a certain field. This way several students came in and dropped out of the endorsement class each semester. Figure 3.2 below describes the student composition of the 2001 cohort of GCTWeb program throughout four semesters.

For this study, individual graduate students who were not pursuing Gifted In-field endorsement were excluded. A group of cohort participants, who were full-time educators pursuing the endorsement, was considered for this study.
**Figure 3.2.** A student composition of the 2001 cohort of GCTWeb program

All four courses were delivered using WebCT. The websites of the four courses were listed and stored on WebCT once instructors created them. This way, students who were currently enrolled in the cohort were able to access all the websites created at one point of access. For example, a student who was taking GCTW 7200 in the fall semester of 2001 was able to access the website of GCTW 7200 as well as the website of GCTW 7100. The course website for each course was customized by the instructors to include course contents, communication tools, student tools, important links, resources, bibliographies, assignments, and student homepages.

For every course, instruction and interaction were mediated by a variety of communication modes including, but not limited to, email, electronic discussion boards, chat rooms, telephone, and face-to-face meetings. However, except for once-a-semester face-to-face meetings, all activities related to the courses were basically online via postings and chats. All assignments were submitted through the assignments tool of WebCT as well.

Although a few variations occurred, the four courses had the same structure requiring students to take examinations, complete several assignments including papers and projects, post a minimum number of messages on discussion boards, and attend mandatory face-to-face meetings, etc. Regarding the assignments, there were either individual or team assignments. The assignments were predominantly authentic tasks. For example, while taking GCTW 7200,
students were required to complete an assignment called Curriculum Differentiation. Curriculum differentiation is a technique where each learner has an assignment or activity related to his/her needs and goals. To complete this assignment, a student should pick an individual child with whom s/he would work, and then each student ultimately created a unit that this child would complete and design the enrichment experience that s/he might generate for this child. Usually, students used a real child from their classes or schools for the assignment. As a result, the unit that students created could be actually used for the child in a real setting. Similarly, while taking GCTW 7300, students were required to create a unit plan as an assignment, in which students applied any strategies and materials that they learned in the program into their work with the children whom they were currently teaching.

Table 3.2 shows the slight differences between and among the four courses in terms of instructors, topics, participants, and requirements. The samples of syllabi for the courses are in Appendix A.

As mentioned, the first course of the 2001 cohort of GCTWeb program (GCTW 7100), was taught in the spring and the summer semester of 2001. Of those two, the spring GCTW 7100 did not have its record stored on WebCT, thus the summer GCTW 7100 website was used for this study, along with those of the other three successive courses. The information presented in Table 3.2 was based on those four websites.

**Participants**

At the end of the 2001 cohort of GCTWeb program, fifteen students completed the sequence and earned their endorsement in summer 2002. Those fifteen were considered potential participants for this study as they were all full-time educators who stayed together in the cohort throughout four semesters.
I contacted the fifteen students to invite them into my study in the fall 2002. Eight volunteered to participate in this study and completed the first round questionnaire with seven open-ended questions. The eight participants ranged in age from 24 to 51, and consisted of 6 women and 2 men. At the time of data collection, they were current teachers representing a variety of teaching levels, preschool through college, and a variety of teaching subjects, Math,
Among the eight, six allowed me to contact them for follow-up data collection. Thus the six students were considered as potential participants for the second round questionnaire. My initial analysis on students’ responses on the seven open-ended questions identified four participants among the six as most appropriate for the purpose of this study, because those four represented varied paths toward community building, different levels of participation, and diverse learning experiences in the community. All of them agreed to continue their participation, and they completed another questionnaire with twelve open-ended questions. The detailed profiles of the four core participants are presented in the next chapter.

**Data Sources and Collection Methods**

“The basic idea of a case study is that one case will be studied in detail, using whatever methods seem appropriate” (Punch, 1998, p. 150) thus, any and all methods of collecting data can be used in qualitative case studies. As such, this study employed three steps to collect data from multiple sources (see Table 3.3. below for details).

As one of the data sources, interviews were originally planned. For this study, however, because the participants were distance learners who needed or desired flexible delivery due to work, academic, or personal responsibilities, corresponding either via electronic mail or by postal mail was preferred over face-to-face interviews. Thus, the standardized open-ended questions were used in the form of questionnaires. And, to compensate for possible limitations of employing the questionnaires, follow-ups through email went back and forth between participants and me. With the purpose of gathering rich and in-depth data, two different questionnaires were implemented. The first questionnaire was implemented to all eight
volunteers from the 2001 cohort of GCTWeb program. Then the second questionnaire was sent to four core participants who were identified from the initial analysis of students’ responses to the first questionnaire.

Another source of data was archives from the course websites stored on WebCT. The available documents from the course websites of four semesters were collected. As this study was done after the cohort was terminated, archives from the course websites provided valuable records showing me how this GCTWeb program and each course were organized, which otherwise would depend exclusively on instructors’ and participants’ memory.

Yet another source of data included postings on the course bulletin boards. However, postings were limited to those postings made by the four core participants who completed both the first and second questionnaires. Collecting those postings was completed to add rich and in-depth information to the previously collected set of questionnaires and to triangulate the information (Merriam, 1998).

Usually, research questions affect the decisions of data sources. Table 3.3 shows which sources of data were collected to answer each research question in this study. Data were collected for about a year beginning in the fall semester of 2002. The description of data collection procedures follows.

<table>
<thead>
<tr>
<th>Research Questions</th>
<th>Data Sources</th>
<th>PHASE 1</th>
<th>PHASE 2</th>
<th>PHASE 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1. How was the formation of a learning community indicated?</td>
<td>7 Open-ended Questions to 8 volunteers</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Q2. What events and circumstances impacted building and sustaining the community?</td>
<td>12 Open-ended Questions to 4 core participants</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Q3. How did students’ involvement in the community evolve?</td>
<td>Archives from course websites</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Postings of 4 core participants</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3.3. Data sources and research questions
First Round Open-ended Questionnaire

In the beginning of October 2002, I asked the instructor of the 2001 cohort of GCTWeb program about contact information for the fifteen students who completed the program, and I got their mailing as well as email addresses. I sent an email to fifteen students to invite them to participate in my study. I told them they would complete an open-ended questionnaire with seven open-ended questions, and they would be provided an option of completing it either electronically (in a Microsoft Word document as an email attachment) or in a paper format (via postal mail). Seven students among fifteen responded via email that they would participate in the study, three requested an electronic questionnaire and four requested a paper-based questionnaire. I made a second attempt to recruit more participants. I sent a paper-based questionnaire using postal mail to the other eight students who did not respond to my first invitation via email. One student among those eight returned the questionnaire to me. A total of eight students among fifteen completed the 1st round questionnaire asking seven open-ended questions. In addition, follow-up questions were asked via email to three participants for clarifications of their responses. A sample of a questionnaire for the 1st round is in Appendix B.

Second Round Open-ended Questionnaire

During October 2002, eight questionnaires were initially analyzed to guide the next sampling process. Four participants were purposefully selected as they were considered “information-rich cases” (Patton, 1990, p. 169) that would provide rich data or information for this particular study. All four agreed to continue their participation. Beginning in mid-November 2002, they completed another questionnaire either electronically or in a paper format, which asked twelve open-ended questions. It took two months for them to return their completed questionnaires to me because of two reasons: as the semester end approached, the four
participants, who were full-time educators, were busy wrapping up their classes; and as the participants were requested to provide rich descriptions, I gave them as much time as possible for their convenience. I asked them if they wanted to receive a reminder via email every other week so that they remember and complete the questionnaire when they have time for it. All of them said that reminders would not be bothersome but helpful. This way, questionnaire collection was completed by mid January 2003. A sample of a questionnaire for the 2nd round is provided in Appendix C.

**Archives from the Course Websites**

All four websites of this 2001 cohort of GCTWeb program were stored on WebCT. At the beginning of this study, I got the instructor’s permission to access the course websites so that I could look at available documents. Throughout both steps of implementing the questionnaires, I frequently visited the course websites to get a sense of what the cohort was like and what the students were doing for their coursework, which was helpful to understand the participants’ responses. After I completed the initial analysis of both the first and the second questionnaires, I visited the course websites again. At this point, I began locating relevant pieces of information on the websites, and putting them together into my own MS-Word document in order to reserve them for later analysis.

**Postings on the Electronic Discussion Boards**

All four websites had the electronic discussion board as a main communication tool for the course. In addition to the instructor’s permission to access course bulletin boards, I also obtained the permission from the four core participants to include their postings for this study when necessary during the second questionnaire. The rationale to only use four participants’ postings came from two issues. First, postings were used as a secondary source of data in this
study, in order to supplement and support questionnaires as a primary source of data. As such, not all postings made by all students enrolled in the courses were considered data for this study; rather postings made by four participants who participated in both rounds of questionnaires were considered relevant pieces of data. A second reason was attributed to the amount of data. Over 2000 postings on the four-semester discussion boards made by all the students confused the participants’ contributions to the postings.

To reserve postings for later analysis, I opened one posting at a time and saved it into my local computer using ‘save’ function of WebCT. A posting was saved in a text file format. Prior to saving postings, I created folders for each semester as sub-folders under the each participant’s folder on my local computer. As mentioned above, because the first course of the 2001 cohort of GCTWeb program was repeated twice; once in the spring semester of 2001 and again in the summer semester of 2001, and the first spring course had no records on WebCT, I could only have one participant’s postings stored on WebCT of the first summer course. I was unable to have postings made by the rest three participants, as they were enrolled in the first spring course. As such, I decided not to include the one participant’s postings from the first summer course. This way I gathered three-semesters of four participants’ postings from the second, the third, and the last courses.

Data Analysis

Merriam (1998) mentioned that “data analysis is the process of making sense out of the data” (p. 178). And she also indicated that “making sense out of data involves consolidating, reducing, and interpreting what people have said and what the researcher has seen and read” (p. 178). Thus, I thoroughly devoted my effort to the process of “meaning making,” beginning when data collection started and continuing through the process of writing up findings.
The primary focus in data analysis was given to the inductive analysis of the data, through which the data were inductively analyzed, searching for themes and patterns. However, data analysis involved “moving back and forth between concrete bits of data and abstract concepts, between inductive and deductive reasoning, between description and interpretation” (Merriam, 1998, p. 178). As such, the inductive analysis, in reality, involved both inductive and deductive manipulation of the data set for this study.

Then I stepped back from the overarching themes and patterns to focus on each case individually. At this point, the goal was to produce an account as close to the individual stories of community building as possible. As such, a case summary of four participants was developed.

**Inductive Analysis**

The analysis of data in this study moved from coding toward interpretation, through a number of discrete phases that were achieved in both linear and cyclic procedures. For the procedures, I mainly relied on Huberman and Miles (1994)’s data analysis process. They defined data analysis as three linked sub-processes: data reduction, data display, and conclusion drawing and verification. Each of these phases is described below.

**Data reduction**

Data reduction simply means coding and categorizing data (Huberman & Miles, 1994). Here I describe data reduction processes for questionnaire data and posting data separately. Although those processes were closely linked and cyclical, they happened in an order as described below.

**Open-ended questionnaires**

I repeated the data-reduction process three times for the questionnaires: the first data-reduction occurred concurrently with data collection; the second occurred with two peer-
reviewers; and the third occurred after all data collection was completed. Here I describe the third data-reduction process for the questionnaire data. I excluded the description of the first process as it was rough even if it was similar to the third process. In any ways, at the end of the first data-reduction process, I had key words, rough codes and categories that I jotted down next to the participants’ responses in the questionnaires while reading their responses. Those key words, codes, and categories were constantly refined throughout the next two rounds of data-reduction processes.

The second data-reduction process was mainly confirmation and extension of the codes and categories through discussions with two peers. I met with one peer at a time each for four times and discussed the codes and categories that I created through the first data-reduction process. This way, the codes and categories were modified, added, and deleted. Keeping these initial codes and categories in my mind, I began my third data reduction. Figure 3.3 shows three processes of data reduction. The detailed description of the third process of data reduction follows.

**Figure 3.3.** Data reduction processes
Prior to open coding, I read through the participants’ responses to the first and the second rounds of open-ended questionnaires twice. During the second read-through, I began creating a tentative list of categories based on my research questions, literature reviews, and key variables and concepts either inspired by my theoretical orientation or those emerged from reading the transcripts. For example, a tentative list of categories included goals, collaboration, support, relationship, sense of belonging, commitment to mutual learning, communication means, learning experience, instructor, and level of participation. I only used this tentative list to guide further analysis of data. In reality, categories emerged from open coding, and they were changed, merged, and refined through an iterative process of coding.

During open coding, I coded the first round of open-ended questionnaires for eight participants, and then moved forward to code the next level of open-ended questionnaires for four participants. During this first pass of open coding, I broke down the data into the smallest unit of information that can stand by itself (Merriam, 1998). The unit was a word, a phrase, a sentence, or a paragraph. Each unit was labeled either “in vivo codes” (Glaser & Strauss, 1967) or with conceptual names or labels (Strauss & Corbin, 1998), and then grouped around particular phenomena identified in the data to form categories. Coding was done electronically in a way that I opened a Microsoft Word file of each participant then I worked on it and saved it as a different file name. This way I prevented myself from spoiling the original transcripts. I highlighted or underlined interesting utterances from the participants’ responses, then typed my code under or next to the marked utterances in a different color. At the same time, my direct interpretations from the codes were added in yet another color whenever they came to my mind.

The second pass of open coding was completed for the open-ended questions. This was accomplished electronically in the same manner as previously described. As the participants
completed the open-ended questionnaires, their responses were easily cut and pasted according to each question. This resulted in seven questions from the first round of open-ended questionnaires with eight participants’ responses, and twelve questions from the second round of open-ended questionnaires with four participants’ responses. During copying and pasting from files, my initial codes and direct interpretations created for each participant during the first pass of open coding were retained. This helped me compare the identified events and actions from one participant with those from others for differences and similarities. Thus, I re-coded the participants’ responses for the first question, then moved forward to re-code the participants’ responses for the next question, and so forth. During this second round of open coding, codes were added, deleted, and grouped together to form categories and sub-categories.

At this point, I created a master list of the codes developed through the analysis of the questionnaires. Then, I moved back to my initial codes and categories that I created through the first and second data-reduction processes mentioned above. I began to compare the master list of the codes with my initial codes, and I made some modification and addition to the master list.

Postings

After the analysis of the questionnaire data, the postings of four core participants were analyzed. As mentioned above, postings from the first course of the 2001 cohort of GCTWeb program were excluded, as I could only have one participant’s postings due to no records of the other three participants’ postings on WebCT. As such, a total of 310 postings made by four participants were analyzed among the total 2126 postings stored on all three semesters of electronic discussion boards. The number of each participant’s postings used in this study is presented in Table 3.4.
Table 3.4. The number of postings of each participant

<table>
<thead>
<tr>
<th></th>
<th>GCTW 7200</th>
<th>GCTW 7300</th>
<th>GCTW 7400</th>
<th>Total No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Karen</td>
<td>45</td>
<td>21</td>
<td>21</td>
<td>87</td>
</tr>
<tr>
<td>Robin</td>
<td>33</td>
<td>25</td>
<td>8</td>
<td>66</td>
</tr>
<tr>
<td>Justin</td>
<td>29</td>
<td>17</td>
<td>15</td>
<td>61</td>
</tr>
<tr>
<td>Cathy</td>
<td>36</td>
<td>41</td>
<td>19</td>
<td>96</td>
</tr>
<tr>
<td>Total No.</td>
<td>143 (982)</td>
<td>104 (804)</td>
<td>63 (340)</td>
<td>310 (2126)</td>
</tr>
</tbody>
</table>

* The number shown in ( ) indicates a total number of postings made by all students enrolled in the course

To begin with, I read through the postings one by one and began open coding. To guide the analysis of the postings, I used a master list of the codes that I created during the analysis of the questionnaire data.

Throughout the coursework, as the students had a weekly requirement for the number of postings for a week, about 70% of the total postings a student made were content-related. For example, a student made a posting reporting his/her own reaction to weekly readings, as well as at least one other posting replying back to another student’s reaction with his/her own comments. While reading through those content-focused postings, I noticed repetitious codes starting to emerge, for example, including summary of readings, reflection on his/her own practice, further implementation plans, theories and models, applications of a theory or a model, biography of scholars in the field, which, however, were not under my interest for this study. As I was interested in exploring factors and processes of community building, I decided not to include such codes indicating what students talked about within the context of course content. This way about 70% of total postings were not considered relevant pieces of data for this study.
The remaining 30% of total postings included messages for socializing through which the students talked about things that went beyond the content. Those postings were reduced by using open coding in the same way I did open coding for the questionnaires. The open coding resulted in developing codes such as willingness to help, acknowledgement, role development, and encouragement, etc., which were considered to be the same as those codes that I found from the questionnaires. As such, referring to a master list of the codes, I thoroughly compared such codes with those in a master list. The comparisons led me to assure that I reached data saturation, as no more new codes were found from the postings. The postings in this study were, in fact, used to triangulate the previous findings from the questionnaires. At this point, I began to merge, refine, and rename the codes and categories to make sure that I included all data. Then, I began to define each code. A sample of the code book is provided in Appendix D.

Data display

Data display is achieved by organizing the reduced data in visual forms such as diagrams, matrices, and maps of the code (Huberman & Miles, 1994). In this phase of the data analysis process, I mainly focused on categorizing data, linking data, and connecting categories. To begin with, I displayed the reduced data in a matrix where categories, sub-categories, and codes were mapped directly to my three research questions. I began to create hierarchical structures consisting of a research question at the first level, a category and sub-categories at the second level, and the codes at the third level. At this point, I found large categories should go first beyond a research question because they could encompass several categories from different research questions, or because some of sub-categories could go under both or either of different research questions. As such, I removed the column for research questions. During this data-display process, I constantly compared the categories and codes (Strauss & Corbin, 1998)
generated across eight participants from the first and the second rounds of open-ended questionnaires and four participants’ postings on three semesters of electronic discussion boards. The comparison led to addition, deletion, and refinement of categories and codes. Finally, I reached a sample of a matrix where categories, sub-categories, and codes were hierarchically laid down.

**Table 3.5. Hierarchy of categories and codes**

<table>
<thead>
<tr>
<th>Category</th>
<th>Sub-category</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student activities</td>
<td>Commitment to mutual learning</td>
<td>Regular support</td>
</tr>
<tr>
<td></td>
<td></td>
<td>High quality postings</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Additional contact</td>
</tr>
<tr>
<td></td>
<td>Shared practice</td>
<td>Way they learn</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Collaborative learning</td>
</tr>
<tr>
<td></td>
<td>Trust</td>
<td>Safe environment</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Being relieved</td>
</tr>
<tr>
<td></td>
<td>Role development</td>
<td>Voluntary contribution</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mutual recognition</td>
</tr>
<tr>
<td></td>
<td>Relationships</td>
<td>Connection</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Group formation</td>
</tr>
<tr>
<td>Instructor activities</td>
<td>Ongoing support during the course</td>
<td>Role and attitude</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Technical assistance</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Managerial flexibility</td>
</tr>
<tr>
<td></td>
<td>Course design</td>
<td>Course organization</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Minimum requirement</td>
</tr>
<tr>
<td>Course nature</td>
<td>Shared goals</td>
<td>Endorsement add-on</td>
</tr>
<tr>
<td></td>
<td>Cohort-based design</td>
<td>Long-term engagement</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Feeling belonging</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Camaraderie</td>
</tr>
<tr>
<td></td>
<td>Drawbacks</td>
<td>Group size</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Conceptual barrier</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Heterogeneity</td>
</tr>
</tbody>
</table>
Next, I began to explore relationships among those categories and codes. The relationships were represented in the form of a diagram, which included different types of boxes, texts, and arrows illustrating the patterns and findings from the data. While drawing the diagram I frequently revisited research questions, and categories and codes, and accordingly the diagram was modified and refined over and over again. During this process the diagrammatic data display helped me note and explore patterns in the data. The final version of a diagram is provided in the final chapter.

Conclusion drawing and verification

In the conclusion drawing and verification phase, displayed data are interpreted and meaning is drawn (Huberman & Miles, 1994). This phase was very much like a continuation of the previous phase, as I sought to compare and contrast cases to identify patterns and regularities. I played with and explored codes and categories over and over again to go beyond coding to interpretation. At the same time, I began to develop my initial thoughts about patterns and explanations from the findings, focusing on verifying them through constantly returning to the data. This way I continued to manipulate the codes and categories, and continued to draw out patterns, in relation to data.

Writing was also on the continuum of data analysis. While I wrote the findings, I could realize gaps caused from unsuitable codes or irrelevant data. I moved back and forth between the original data, displayed data, and the interpretation and conclusion. This way I could identify more enduring patterns and themes, and could provide stronger accounts for the findings. It was really true that, as Huberman and Miles (1994) illustrated, coding and categorizing the data led to ideas on what should go into a matrix and how codes and categories relate to each other in a diagram. As this visual display of the data ended, patterns emerged and preliminary conclusions
were drawn. But, the patterns and conclusions led to decisions, such as adding or deleting cells to the matrix to support the conclusions.

Case Summary

The more familiar I became with the data, the more clearly I noticed different paths toward building a community. As such, I decided to develop a case summary of the four core participants who represented different levels of community building among the cohort group.

To develop a case summary, I relied on Polkinghorne’s (1995) narrative analysis, which was referred to as narrative construction in Winograd’s (2000) dissertation study. Narrative construction is a process of synthesizing the data elements into a story. Thus, narrative construction gathers events and happenings as its data and produces explanatory stories out of the data (Polkinghorne, 1995; Winograd, 2000).

Polkinghorne (1995) mentioned,

In this type of analysis, the researcher’s task is to configure the data elements into a story that unites and gives meaning to the data as contributors to a goal or purpose. The analytic task requires the researcher to develop or discover a plot that displays the linkage among the data elements as parts of an unfolding temporal development culminating in the denouement. (p.15)

To begin with, I located events or actions that were important in explaining a case, and then I organized them in a chronological order. Table 3.6 shows how I put events or actions into a timeline with an example of two cases of this study.
Table 3.6. Timeline for events and actions of a case

<table>
<thead>
<tr>
<th></th>
<th>Karen</th>
<th>Robin</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Background information</strong></td>
<td>Extrinsic motivation</td>
<td>Intrinsic motivation</td>
</tr>
<tr>
<td></td>
<td>Intrinsic motivation</td>
<td></td>
</tr>
<tr>
<td><strong>Timeline for Events &amp; actions</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Beginning</strong></td>
<td>Frustration with WebCT</td>
<td>Enjoying working with other students</td>
</tr>
<tr>
<td></td>
<td>Feeling comfortable</td>
<td>Providing help</td>
</tr>
<tr>
<td><strong>Middle</strong></td>
<td>Active participation</td>
<td>Personal difficulties</td>
</tr>
<tr>
<td></td>
<td>Being more &amp; more comfortable</td>
<td>Flexibility: Advantage vs. disadvantage</td>
</tr>
<tr>
<td></td>
<td>Additional interaction</td>
<td>Participation decrease</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No extra interaction</td>
</tr>
<tr>
<td><strong>End</strong></td>
<td>Positive experience</td>
<td>Incompletion</td>
</tr>
<tr>
<td></td>
<td>Connection-Lasting friendships</td>
<td>Disconnection-No relationship</td>
</tr>
</tbody>
</table>

At this point, an outline of a plot began to emerge. Then, advancing a plot required me to look for relationships among the data elements, such as cause and influence, and fill in the plotted story. However, as Polkinghorne (1995) suggested, filling in the outline with detail often revealed some weaknesses of the emerging plot idea. Accordingly, I made adjustments to the initial idea. This way, the plot was adapted to better fit the data elements and their connections.

**Validity and Reliability**

All research studies have concerns that affect trustworthiness of the study. Here I describe the strategies that I used to enhance credibility for this study.
Internal Validity

Internal validity in qualitative research refers to “how congruent are the findings with reality” (Merriam, 1998, p. 201), which means how well the findings represent the reality of the phenomenon under study. There are several strategies that an investigator can use to enhance internal validity. One of the strategies I used was triangulation. For this purpose, I used multiple sources of data including the first round of open-ended questionnaire, the second round of open-ended questionnaire, archives from the course websites, and postings on electronic discussion boards. In addition, the analysis of postings resulted in confirming the emerging findings from the analysis of questionnaire data. Another strategy used in this study was peer debriefings, through which I asked colleagues to comment on the findings as they emerge. I had thee peer reviews: two were particularly for data-reduction process; and one was focused on data analysis in general. I reviewed the emerging codes and categories with a doctoral student in my department and with a former graduate student from my department. And, I reviewed the emerging findings with a professor, a member of my committee. Yet another strategy to enhance internal validity of this study was to clarify my assumptions and worldview at the outset of the study. I stated my professional and personal biases that might have impacted the design and implementation of this study.

External Validity

External validity in qualitative research refers to “how generalizable are the results of a research study” (Merriam, 1998, p. 207), which concerns the readers’ ability to transfer the findings of the study to their particular situations. As such, one of the strategies to establish external validity is to think in terms of the reader of the study. “Reader or user generalizability involves leaving the extent to which a study’s findings apply to other situations up to the people
in those situations (Merriam, 1998, p. 208).” Thus, I provided rich description to describe the research context so that readers would be able to determine whether the findings of this study can be transferred to their situations.

**Reliability**

Reliability is concerned with the extent to which the results of one study can be replicated by another. “Reliability in a research design is based on the assumption that there is a single reality and that studying it repeatedly will yield the same results” (Merriam, 1998, p. 205). In qualitative research, however, it is assumed that there are many interpretations of the world because “researchers seek to describe and explain the world as those in the world experience it” (Merriam, 1998, p. 205). Therefore, replication of a qualitative study will not yield the same results. Instead, “a researcher wishes outsiders to concur that, given the data collected, the results make sense” (p. 206) rather than require them to get the same results (Merriam, 1998). One of the strategies I used to enhance reliability of this study was triangulation. The other strategy used in this study to enhance reliability was to state my personal biases and assumptions. Both strategies were described above under internal validity.

**Limitations**

Several considerations limit this study. Here I acknowledge them:

First, one of the limitations of this study arises from the nature of a case study approach. Caution must be applied, therefore, when the results are generalized to other cases with different goals and purposes, and different students and instructors. It should be acknowledged that the online cohort under study had a unique situation inherent in this particular case.

A second limitation includes the participants’ lack of understanding about the topic and purpose of this study. As such, I avoided using particular terminologies closely related to our
field, for example, learning community, shared practice, etc. not to offend participants or not to create any biases.

A third limitation includes my decision not to focus on instructional design of the courses. I was interested in finding sources and processes leading to a community and supporting the community in a more macro level. As a result, I did not specifically focus on the instructional design of the courses and how a design factor impacted community building.

A forth limitation relates to methods of data collection. First, as the questionnaires were implemented to those participants who volunteered in the study from among all students in the cohort, a positive tone was predominant in the participants’ voices. Additionally, the postings that I used for this study were public ones, which may have resulted in a positive tone of the remarks. I of course excluded personal emails as one of the data sources, which may have included more comments that were negative in tone.

A fifth limitation concerns internal validity. To establish internal validity in this study, I used several strategies including triangulation, peer debriefings, clarification of researcher’s assumptions as described above. However, if one more strategy, member check, to enhance internal validity had been conducted, that would have established stronger internal validity in this study. Because there was a fairly long time period between data collection and writing up the findings, I did not implement member checks in this study.

**Ethical Considerations**

It is important for researchers to consider ethical concerns in order to protect the rights of participants and ensure the fairness of the research (Merriam, 1998). This study is not an exception. I followed the ethical guidelines laid down by the university. Before commencement
of the study, I had this study approved by the Institutional Review Board of the Human Subjects Office.

In this study, consent forms were used to inform the participants of the purpose and nature of this research study. All participants were required to review and sign the consent forms prior to commencement. In dealing with data, confidentiality was an important issue. Participants’ real names were removed and pseudonyms were used. Further, other identifying data, such as the department or university, were deleted and substituted. Access to all the records in this study including the questionnaire scripts, email follow-up responses, and postings on electronic discussion boards was confined solely to me.

Summary

In this chapter I discussed the research questions and research design. Then I provided a brief introduction to the pilot study and the lessons learned from it. And, I also presented the procedures of site and sample selection, and the processes of data collection and analysis. Finally, I discussed the issues of validity and reliability, and the limitations and ethical considerations of the study. In the next chapter, I present the findings of this study.
CHAPTER IV
FINDINGS

Overview

The previous chapter provided discussions on research methods employed for this study. In this chapter, I describe the results of data analysis. First, I present themes that emerged from an inductive analysis across the data from all eight participants. Then, I present four case summaries constructed for the four core participants.

To extract the themes presented in this chapter, I used the inductive analysis of data. I relied heavily on Huberman and Miles (1994)’s data analysis process that involved three linked sub-processes: data reduction, data display, and conclusion drawing and verification. I created codes and categories from the enormous quantity of textual data (data reduction). Then I organized the codes and categories in visual forms including a matrix and a diagram (data display). Finally, I made interpretations and drew meanings from visual forms of data (conclusion drawing and verification).

To construct the four case summaries, I stepped back from the overarching themes and patterns and concentrated on each case individually. I focused on producing accounts as close to the individual’s processes of engaging in a community as possible. Relying on Polkinghorne’s (1995) narrative analysis, I developed explanatory stories of the four cases from the data. The rest of this chapter is devoted to presenting the themes and the four case summaries.

Themes

Three major themes emerged from this study: (1) Student interaction; (2) Instructor support; and (3) Cohort model. Each of the major themes embraces several supporting themes.
Student interaction includes four sub-themes: (1) Commitment, (2) Trust building, (3) Shared practice, and (4) Role adoption. Instructor support covers two sub-themes: (1) During-the-course assistance, and (2) Course design. Finally, the cohort model includes three sub-themes: (1) Shared goals, (2) Advantages of cohort model, and (3) Challenges. The introductions to the three major themes and their sub-themes are presented right before each section. Then detailed descriptions of the themes follow.

**Student Interaction**

Data demonstrated that the majority of the students in this cohort were highly dedicated to their own learning as well as to the learning of others. Data also showed that the students took initiatives in leading interactions through both online and offline communications, through which the students made their learning environment safe to a degree they could ask any questions freely. In addition, data showed that the interactions allowed the students to successfully develop their own customs of which the member of the cohort was aware, and develop their own roles through which they could most contribute to the cohort. Four sub-themes including commitment, trust building, shared practice, and role adoption emerged. Detailed descriptions of the themes follow.

**Commitment**

As postings were the main system through which the students participated in the course, it appears that the level of commitment shown by each student in constructing her/his postings was important in the learning process. The students indicated that the majority of students in this cohort were committed to providing quality postings even though this was not true for all participants. For example, Robin said,

I was very inspired by some participants. Their high level responses and their level of comprehension were helpful in the learning process. The posting of the individual
responses led to better and more in depth understandings. Similarly it was wonderful to see how people with less general knowledge who were on a different point in their learning continuum, profited for my responses.

Also, Cathy commented, “I actually enjoyed real dialogue on a topic. I liked reading postings that were original, well written, concise, and/or thought provoking. I hated wasting my time reading poorly constructed, repetitious opinions.” Similarly, Justin stated, “… I found some of my classmates’ postings insightful but others were less rigorous…” Even though there were some participants who were less dedicated to others’ learning, it appears that most students felt that they learned from each other, for example, Karen reported, “I believe we all worked well together and supported each other be in answering each others questions that were posted, working in groups on assignments, or listening to each others frustrations.” And, Matt said, “I think all of us contributed to the learning of each other via the weekly postings we did on each topic. Viewpoints were expounded and discussed to a degree I would not have considered without the postings.”

The students were willing to support others’ learning not only through the postings but also via other communications. Karen, for example, said, “I really cared about the other students’ learning. I was always willing to help explain something to someone if he was confused. I always appreciated phone calls or emails from fellow students who had questions.” As Karen did, other students indicated that they used telephone to communicate with others although they were in a totally online program. For example, Denise used the telephone to supplement the online communication and said, “We worked in cooperative groups, “chatted,” emailed etc. about collaborative projects. Phone calls were used to ascertain roles for projects, assignments etc…” It appears that the telephone was a more convenient communication means
among those who were in a small group working on the project together. Also, Martha commented, “I communicated through private e-mail, telephone, and even several written communications. When we worked on the project about [a biography]…, I actually copied material and mailed it to the other student who was researching the same person as I.” These data demonstrated that this use of additional offline communication provided the students with additional opportunities to help the learning of others.

Trust building

As described above, the students were very willing to support others’ learning. This way the students indicated that they all could learn together. For example, Martha said, “I felt that other students were constantly helping me, and I helping them. We all worked together. That was the beauty of the online class.” And, Justin said, “I felt we needed to help each other learn. … I believe my desire and passion for the content did help others learn and master the content…” He added, “The feedback we gave each other was fairly positive.” Also, the students indicated that they became familiar with each other while learning together. For example, Sarah stated, “I got to know many students better through our weekly discussions postings, responses, and through several small group chats. I also get to know peers through the course “live” meetings each semester.” Similarly, Karen commented,

At first, as with any class, it is difficult because you don’t know anyone. And, with them being online courses you didn’t even meet face to face. However, through the class postings and the online chats, I began to feel very comfortable with my fellow students.

It appears that this pattern of learning together allowed the students to feel that they were in a safe learning environment where they could ask any questions and provide feedback freely. Karen said, “I believe people felt comfortable asking me question. Also, they seemed open to
my questions when I had them too.” She added, “I collaborated with other students through email and phone calls. If I had a question, I could always ask one of them.” Matt also indicated that when he posted questions he expected they would be answered by others. He said, “Several times I posted questions online to be answered by my classmates…” Further, the students demonstrated that they shared the pressure they felt from the course with others. For example, Karen reported, “… [We had phone calls] at least 3-4 times a week and when a huge project was due or if we were studying for a test, sometimes the phone calls were 3-4 times a day.” It shows that noticing others also were under pressure helped the students feel relieved. For example, Cathy stated,

We had tons of work every week and I could feel the tension from the others as I read their postings. It helped me feel that I wasn’t alone in feeling overwhelmed. The next class was less demanding so the tons of the messages softened…

Also, she reported that sharing pressure led the students to feeling stronger bond as she said, “When we felt pressured by assignments, we felt closer, I guess.”

Shared practice

As described above, postings and phone calls made by the students showed how committed the students were in helping others learn. At the same time, this also revealed that the students developed shared practice, a shared way of learning together. Data demonstrated that the most frequent comment on learning by all eight participants was ‘learning through postings.’ Given that the postings were the main communication tools in this course, students acknowledged that they learned by making and reading the postings. For example, Cathy said, “We routinely made replies to the comments of classmates [on weekly readings].” And, she continued, “The replies were often informative and sometimes thought-provoking. I think this
dialog helped us think about the discussion topics.” In addition, the students indicated that they engaged in collaborative learning through group projects and some other requirements. For example, Justin reported, “Collaborations consisted of discussion postings, group projects, and group activities. There was a good balance of group and individual projects and the opportunity to interact with classmates throughout the program.”

The students also reported that they made frequent use of phone calls to supplement limited online communication, as Cathy commented, “Email was difficult because you had to wait for replies but chats were hard to schedule.” Despite the variety among the students in number of calls, some students indicated frequent phone calls. Sarah and Denise, for example, represented those who used phone calls an average amount among others and said, “…several times…” This use of the telephone revealed that the students developed course logistics of their own while seeking more satisfactory and convenient way of learning together. To sum up, the students in the course developed a shared way of learning where they supported each other on a regular basis through various collaborative activities.

Role adoption

As the cohort consisted of diverse groups of people, the students in this cohort could help others, especially using their own expertise and situations. For example, Justin was in a unique situation. He had a doctoral degree in an education field (not in gifted education) and was teaching at the college level while other students in the cohort who were currently teaching were all K12 teachers. He made the decision regarding the area to which he could contribute most, considering himself an academic unlike other practitioners. Justin said,

Classmates offered insightful comments on readings. Their comments were housed with the context of classroom experience. [Different from others] I helped classmates with
research projects. I also tried to complete scholarly comments with references to assist classmates in understanding my arguments.

Contrary to Justin’s case, Martha, an experienced classroom teacher with a 30-year teaching career, put great value on her role as a classroom teacher by saying,

For larger projects, we would divide the work load and each person did their fair share. Those of us who had been in the classroom longer than others often shared words of wisdom, or unique ideas that had helped us through the years.

Another experienced classroom teacher, Robin, who was currently a trainer for the IB (International Baccalaureate) primary year program, adopted her role as a consultant and material distributor of this area. As several students were interested in conducting research on the IB curriculum model, they used Robin as a resource person for their research project. For example, Sarah reported, “One classmate who taught at an IB PYP school assisted me and several other peers in our research of this curriculum model.”

As such, there were help-providers and help-receivers in certain areas. However, the exchanges among the students were not always in-kind exchange, although it was mutually complementary. ‘Who provided what,’ which I defined as each student’s role, was decided and adopted based on individual expertise and situations. Further, the data demonstrated that the individual roles were appreciated. The students mutually recognized their influence on each other’s learning. For example, Justin said, “I received and gave several positive comments about my influence of others and their influence on me. …” Similarly, Robin commented,

It was interesting to hear about other perspectives in other settings, the high school or college perspective often varies from the Primary School point of view. Since this balance allowed for diverse perspectives, it helped generalize the concepts and facilitated
more in-depth learning. After I got to know individuals better I was waiting for certain responses because I knew they would be of high caliber and make me think some more.

Data showed that this mutual recognition on the individual differences and the differently adopted roles brought positive learning experiences to the students. For example, Denise stated, “I think we all brought unique experiences and viewpoints to the program.” It appears that this diversity worked well in this cohort, as for example when Robin said, “The prior knowledge of the participants was diverse yet well balanced and it allowed meaningful interaction on all parts.”

**Instructor Support**

Data showed that the instructors (there were two instructors: the major professor and a teaching assistant) supported community building by providing the students with ongoing assistance during the course implementation. In this particular online endorsement program, the major instructor was a course designer. The students reported that the course structure the instructor designed during the course preparation impacted the community building as well. As such, the instructors in this cohort facilitated community building throughout course design to implementation. Sub-themes including during-the-course assistance and course design emerged. Detailed descriptions of the themes follow.

**During-the-course assistance**

The students indicated that the instructors provided an ongoing pattern of assistance for them. For example, Justin said, “The instructor was very supportive and expected quality work.” He added, “She was also accessible via email over the website. She continually communicated with the class through the website on a weekly basis.” Robin also had positive experience with the instructors and said, “Both [instructors] were extremely supportive and helpful. … Both instructors were extremely knowledgeable about their field and facilitated the learning process in
a professional and competent way.” Martha valued the instructor’s effort to humanize the online learning environment. She commented,

At one point, my father became very ill, and I spent the week sitting in the hospital with him, and Dr. Gray actually contacted me to ask how my father was doing. I felt that added a very personal touch to an online class.

In addition, the students indicated that they liked politeness the instructors showed to them. For example, Cathy stated, “…she [the instructor] responded promptly and courteously to calls or emails for help.” She continued, “During class meetings they [both instructors] treated the class members in a respectful manner…” Similarly, Karen reported, “When I spoke to her [the instructor] on the phone, she was always polite, supportive, and helpful.” Data demonstrated that the students liked the way the instructors managed the course and approached them on the whole. Among the positive remarks about the instructors, the following were most frequently mentioned:

**Technical problem solving**

One of comments most frequently made about the instructors by the students was how immediately the instructors helped them solve technical problems, especially in their first semester. For example, Karen said, “A few times certain assignments were supposed to be “released” at certain times, but they didn’t show up. After contacting the instructor, she went in and fixed the problems very quickly.” Cathy reported that she had less technical problems with time passing and said,

I remember more technical problems during the 1st course but most of them were probably related to my and the instructors’ inexperience with WebCT. Once, my connection failed during a test… I was very upset… It was also annoying to have to
reconstruct a posting when I inadvertently hit the backspace... This happened less often
as the courses went on.

Similarly, Justin commented,

During the first course, I had to learn the WebCT system. Once the basics were learned I
didn’t have any problems. When there was a problem that I couldn’t address, I sent an
e-mail to the instructor and it was quickly addressed.

As such, the students in this online program were quite satisfied with instructors’
immediate responses to their technical problems. They always contacted the instructors when
any technical problems arose and the instructors were most helpful immediately.

Flexibility

Another frequently mentioned comment about the instructors was the managerial
flexibility they permitted. For example, Robin said, “They [the instructors] encourage the
participants and try to accommodate the students if they face personal difficulties or other
challenges…” Several students specifically indicated that they enjoyed the flexible schedule
they could have. For example, Karen said, “Sometimes it [emailing to the instructor] was to get
an assignment early so I could turn it in early because I was going out of town.” Similarly,
Cathy commented, “…to inform them/her of scheduling difficulties related to class meetings or
due dates…” Karen indicated that this flexibility enabled her to complete this online program
saying,

I especially enjoyed that I could work on this class as my schedule permitted. In other
words, if I was swamped at work one week, I could wait until the weekend to work on
my class assignment. Conversely, if I had time during the work week, I could go ahead
and get my assignments for my class done and not have to work on it on the weekend.

The flexibility was very nice for me.

Given that the students were adults with job and/or family responsibilities, flexibility certainly contributed to their ongoing participation in this endorsement program.

Course design

The students indicated that course structure, which I defined here as a general organization of the course and tasks to be completed by the students, was important in staying in the cohort and connecting with each other. For example, Justin said, “The instructor provided a clear outline, course objectives, course activities, and assessments.” He continued, “Since the course was too well organized it was easy to keep on pace.” Also, Cathy stated,

The instructors organized the class in such a way that they encouraged group communication through assignments such as required postings and required replies to the postings of others and through small group work. During class meetings they treated the class members in a respectful manner and encouraged an exchange of ideas among members.

Martha particularly valued the assignments saying, “I did feel a sense of belonging. We were always connected to each other through the assignments. Dr. Gray did a great job in that department.” Data demonstrated that how the course was designed impacted the students’ participation in and sense of belonging to the cohort group. The most frequent comment by the students regarding the course structure was on the face-to-face meetings and posting requirements.
Face-to-face meetings

The students indicated that they valued face-to-face meetings, as they could connect a face to a name and in this way they could feel more sense of belonging. When asked to describe the things that made them feel they belonged or did not belong to the cohort group, for example, Cathy said, “Class meetings helped [me feel I belonged] by allowing me to put a face with a name. At conferences, members of our class would gather to sit together although we’d only met online” Robin also identified face-to-face meetings as one source of her sense of belonging and said, “It was fun to get to know people in Athens once per semester. It is amazing what you can learn about your peers just from their responses and it was helpful to connect faces to the writing.”

Requirements

It appears that it was important for the instructors to set requirements (e.g., the number of postings a student should make per week including the initiating messages and replying messages) so that the students could contribute to others’ learning. In the case of Karen and Justin, they indicated that the requirement was one of the important reasons they participated in class discussions and activities, although they were intrinsically motivated to do so. Karen said, “I participated in class discussions and other class activities for many reasons: they were required; I enjoyed the topics; I enjoy discussing.” Justin similarly stated, “We were required to participate. We earned points each week for our postings. While earning a good grade was not my primary motive, it was still influential. The activities were also interesting and valuable learning experiences…” In the meanwhile, Sarah did not show her intrinsic motivation to the course overall and said, “The required peer response each week encouraged me to interact with a
variety of classmates.” Data showed that posting requirements facilitated interaction among the students.

**Cohort Model**

Data revealed some advantages and disadvantages of this online program based on a cohort model. The students reported benefits they derived as a cohort, for example, sense of belonging and increased comfort. At the same time, they reported challenges resided in the nature of an online cohort, for example, including heterogeneity of a group and conceptual barrier to online learning. Sub-themes including shared goals, advantages of cohort model, and challenges emerged from the data. Detailed descriptions of the sub-themes follow.

**Shared goals**

Data showed that all eight participants had a shared goal given that they entered the cohort pursuing gifted endorsement add-on eventually. For example, Martha said,

> I was asked by the local school board and administration of my school to teach our gifted students language arts. I was given the opportunity to go on “extended day,” which gave me a considerable pay raise. So, my original goal was to become certified to teach gifted children.

Similarly, Matt stated, “I was seeking the requirements for gifted certification of my county and the state.” Sarah, for example, was a little bit more self-initiative and said, “I wanted to take classes for the gifted endorsement to add to my current early childhood certification.” Although every student reported their goals with slight variations, their goals concerned professional development, particularly endorsement add-on for their future career.
Advantages of cohort model

The students indicated that they appreciated those same people who were in the cohort together for their presence throughout four semesters. For example, Robin said,

I believe it is important to keep a core of people together for the length of the course. It provides participants with the feeling of belonging and it encourages [us] to finish and hang in there. Some peer pressure is a good thing.

Further, Martha mentioned that she felt very close to those people by saying,

It was amazing, but I actually felt that I knew the students in the course. Most of us took all 4 classes online together, and even though we only actually saw each other a few times, we felt that we knew each other. It is unbelievable, but when you communicate as much as we did online, you actually feel as if you know each other.

As such, all eight participants made comments on a sense of belonging. For example, Cathy commented, “I felt that I belonged because I participated in group activities, individual activities and in postings and replies. I felt connected to the group in the sense that we were “all in this together.” Moreover, some of the students reported a sense of camaraderie as Karen, for example, said, “As time went on, I felt more and more comfortable. … I felt a sense of camaraderie when we’d all meet together, even though it was only once a semester.”

As Karen mentioned, the cohort model allowed the students to feel more comfortable with each other as time passed. Data demonstrated that this increased comfort on students’ part as well as on the instructors’ part certainly impacted the subsequent courses in a positive way. Regarding the students, for example, Cathy said,

I think the group that started and finished the whole course together online became more comfortable with each other as time passed. We knew each others’ stories, faces, and
background, and we’d formed our opinions about each other. …we were more comfortable with our place in the group by the end.

Also, Karen stated,

I enjoyed the cohort group more and more with every class. I believe it had to do with many things: becoming more comfortable with the workings of the WebCT site, becoming more comfortable with the expectations of the professor, and becoming more comfortable with the personalities of the students in the class.

It appears that this increased comfort with other students, along with the adaptation to the course circumstance, allowed the students to enjoy the rest of the cohort program more. In addition, the students indicated that the instructors were more comfortable as time passed as well. For example, Karen said, “I also believe she [the instructor] became more comfortable with the classes, the site, and the students as time went on, and therefore the class became more manageable for the students.” Justin commented, “Teaching online was a new experience and the instructor tried a variety of activities. She was able to do more of what worked effectively as the course sequence progressed.” Data showed that students did benefit from the cohort model on which this online program was based.

Challenges

Data showed that there were several barriers that challenged individual students. As this online endorsement program primarily targeted non-traditional students, participants represented a diverse group of educators with different backgrounds. As described above, diversity and the resulting expertise in different areas facilitated role development. However, some of the students reported dissatisfaction with this heterogeneous grouping of the course. For example, Matt said,
“... there was such a mixture of different grades and subjects; it was hard to connect with their ideas.” Similarly, Denise commented,

> I felt I belonged to the group. I felt connected to others in the class because we were all “going through the same thing.” I felt connected to those who were doing this while teaching, currently, especially. I didn’t feel particularly connected to those in very different circumstances, i.e., stay at home moms or university teachers.

In addition, Robin, for example as an adult with complex responsibilities to her family and job, reported that personal situations were challenging in her completion of four-semester cohort program and said, “I could not participate in many opportunities given. I adopted a baby, had changes in job responsibility and was gone to study during the summer in Europe.” She continued, “During the last semester I have faced too many challenges, I was out of the country without easy access to a computer and so on.”

Finally, other than technical problems some of the students faced during the first semester introduced above, conceptual barriers were indicated by a few students who were unfamiliar with online learning. For example, Matt said, “I felt that all the students were in the same boat, trying to feel out this new type of class.” His comment implied that he had some difficulty in getting himself adapted to online learning. And, Sarah stated, “Any group of classes taken by a cohort strengthens a sense of belonging. The online cohort was probably not as strong a group as a “live” cohort would be.” She recognized the limitation of online class in sharing a sense of belonging. Concerning Sarah’s comment, Justin also pointed out group size as an obstacle to feeling belonging and said, “If the cohort were smaller, I think it would have been more influential in developing a stronger sense of belonging.”
Case Summaries

Aside from the themes that emerged across the data, four participants’ data appeared to tell different stories about community building. Case summaries of those four participants demonstrated different levels of perceived community and various paths toward a community, and their diverse experiences in the cohort. Each story begins with a description of the background of an individual, and it follows the timeline of the cohort consisting of the beginning, middle, and end. The four cases are Karen, Robin, Justin, and Cathy.

Karen

Background

Karen is 32-years old with 12 years of teaching experience. She started the Gifted In-Field Endorsement program in the summer of 2001. Karen was teaching high school English. Throughout the 12 years of her career, Karen taught many different grade levels and in different settings. She has also taught several Special Education students as well as a few gifted underachievers. Karen has struggled to figure out how to adequately serve all students who were at the different levels. This concern led her to work on the Gifted In-Field Endorsement.

Karen’s goals in pursuing the Gifted In-Field Endorsement thus originated not only from extrinsic motivation, which was regarded important by many other students, but also from her intrinsic motivation. She said, “My goals included getting my gifted certification so I could add it to my education degree, and to learn how to better meet the needs of my students.” Karen also sought another teaching position and got it. She said, “I also wanted to get a Gifted Collaborator Position in my school and this gifted endorsement enabled me to do so.”
Beginning

Even though Karen was motivated and knew exactly what she wanted to get from this program, she experienced the same difficulty as other students in the beginning. Karen was at first frustrated with online learning, especially with WebCT. However, once she got accustomed to using WebCT, she revised her opinion. She said,

Once I learned how to use the WebCT site, I had a very positive experience taking the online courses. As with anything new, I was frustrated when I was first learning how to use the site, how to download papers and assignments, and how to post and respond to postings. However, I soon got to the point that I was helping other people who were having trouble.

Not only was Karen new to WebCT but she was also unfamiliar with other students and instructors at the outset. However, she gradually enjoyed the cohort group as she moved through the sequence of four semesters, because she became comfortable with the surroundings of this online program. Karen commented,

I enjoyed the cohort group more and more with every class. I believe it had to do with many things: becoming more comfortable with the workings of the WebCT site, becoming more comfortable with the expectations of the professor, and becoming more comfortable with the personalities of the students in the class. I also think that the work load was a bit much in the first class, but became much more manageable with the 2nd, 3rd, and 4th classes.

Also, Karen thought that it was not only her who initially struggled with online learning saying, “Furthermore, I think the professor became more comfortable with the site, the students, and the classes as well.” This way she felt comforted and could move through four semesters.
Karen actively engaged in class activities and remained highly involved throughout all four semesters. She reported, “I don’t think my participation has changed over time. I think I was involved and energetic from the start.”

During the course, Karen participated in class discussions through postings and online chats, and she completed several group projects as part of course requirements. Those interactions for course activities were initiated by the external pressure as well as by her own desire. Karen said, “I interacted with students because it was required, because I enjoy working with other students, because I like to learn from other students, and because it makes for a better learning environment.” Those interactions coincidently contributed to her getting to know other students. Karen said, “…through the class postings and the online chats, I began to feel very comfortable with my fellow students.”

In addition to postings and online chats, Karen initiated additional interaction with other students through email and phone calls. She said, “As I continued through the courses, I became closer to some members in the class. The phone calls with a few people developed into friendships with people I still keep in touch with.” Karen’s group actually formed when each student chose the same topic among a list of topics for the group project. Then group members added personal contact as Karen said, “The emails and phone conversations started off as a means to complete group projects. They soon developed into social purposes. And, some of the phone calls were both... Why not work on a group assignment in a social setting!”

As such, Karen became more and more comfortable with working on this online course over time. She felt a sense of belonging to the cohort group and further she developed good friendships with two students. Karen commented, “Group work helped me feel like I belonged.
Responding to postings helped me get to know students better. My own initiative to get to know students helped me feel like I belonged.” And, she said, “I enjoyed the other students in the class. I believe we developed some good friendships and relationships.” The relationships evolved throughout four semesters as Karen said, “…they [relationships] became stronger as the semesters went on.”

By developing good friendships and relationships, Karen stayed in the cohort till the end and finally found her place within the cohort group. Even though the relationships were not as strong after the endorsement program was over, Karen had not broken off her connection with two students at the time of this study. Karen stated,

I have developed 2 very good friendships with people in the classes. And, they don’t even live in the same city that I do. I have two girls who I keep in touch with. During the classes, we talked at least 3-4 times a week, and now that we aren’t in the classes, we talk about once a month.

End

Finally, Karen was very positive about her experience with this online endorsement program, specifically because she had comrades who supported each other. She said,

Since the classes were online, we didn’t get to see each other in class, but I began to get to know my fellow classmates through the postings and responses. I also liked being able to have some online chats with fellow students; they helped to get to know each other. I believe we all worked well together and supported each other be in answering each others questions that were posted, working in groups on assignments, or listening to each others frustrations.
Robin

Background

Robin is 35-years old with 11 years of teaching experience. She started the Gifted In-Field Endorsement program in the spring of 2001. Robin was working at a local International School as a second grade teacher, assistant to the curriculum coordinator and extension consultant. Her area of expertise in curriculum development and implementation was focused on the Primary Years Program of the International Baccalaureate (IB). Some time in the middle of series of endorsement courses, Robin was on maternity leave.

Robin’s goal of pursuing the Gifted In-Field Endorsement was for the professional development regarding teaching the gifted. Robin was intrinsically motivated in taking this endorsement program and said, “I believe online courses are a wonderful opportunity to stay connected with learning and enhance your professional development opportunities.”

Beginning

Robin was delighted with this learning opportunity and she enjoyed working with other students who had diverse backgrounds and perspectives. She valued all the responses, not only high level responses but also unsophisticated ones, and said,

I was very inspired by some participants. Their high level responses and their level of comprehension were helpful in the learning process. The posting of the individual responses let to better and more in depth understandings. Similarly it was wonderful to see how people with less general knowledge, who were on a different point in their learning continuum, profited for my responses.

She added,
It was interesting to hear about other perspectives in other settings, the high school or college perspective often varies from the Primary School point of view. Since this balance allowed for diverse perspectives it helped generalize the concepts and facilitated more in depth learning.

Not only was Robin enthusiastic about learning itself but she also pursued a sense of connectedness and personal contact. She said, “Meeting was important. I also liked the way the instructors shared personal information like photographs or announcements. The students’ homepages also allowed for more personalized information.”

Also, Robin found the area to which she could most contribute. She played her role as a resource person to those who were interested in conducting research of the IB curriculum model. Robin said, “I’m a trainer for the IB primary year program and was able to provide online students with materials and expertise.”

**Middle**

Robin enjoyed the cohort group and said,

It was fun to get to know people in Athens once per semester… I believe it is important to keep a core of people together for the length of the course. It provides participants with the feeling of belonging and it encourages [us] to finish and hang in there.

As the four semesters approached an end, however, Robin faced several personal difficulties, which challenged her active participation in the course. She said, “Four semesters are a pretty big commitment. Sometimes it is difficult to keep the momentum going.” She continued,
My personal situation wasn’t easy either. I adopted a baby, had changes in job responsibility and was gone to study during the summer in Europe. In addition, I gave training seniors on the IBPYP across the country. I was too busy during this time. While having this busy life, Robin benefited from the flexibility that the online course provided. But, the flexibility was not always working well for her. Robin commented, I enjoyed the flexibility that the course gave me. … When I had sufficient time on my hands I very much enjoyed learning this way. When things became more tight with family and work situations, it was a lot harder to find the time to complete assignments. As such, Robin could not make any effort to interact with other students outside the course bulletin board. She reported, Apart from the interaction online, I did not have much contact with other participants. I would have liked to form more active study groups if there would have been more students from the area I live in. This was not the case. Accordingly, as Robin said, she did not get to know many peers well. This way Robin became less engaged and said, My active participation dwindled during the last semester due to my personal situation that had nothing to do with the course, the cohort group or the instructors. Nevertheless, I felt that the instructors tried to accommodate for that but I couldn’t live up to the expectations. 

End

Robin did not complete the course at the end of the cohort, although she completed it at time of this study. She stated,
Actually I did not complete the course. During the last semester I have faced too many challenges; I was out of the country without easy access to a computer and so on. I finished with an incomplete. Hopefully during the month of January things will calm down and I hope I will be allowed to finish the course.

As Robin was strongly motivated and eager to finish the course, she did follow-up and finally got the endorsement.

Justin

Background

Justin is 43-years old with 13 years of teaching experience. He started the Gifted In-Field Endorsement program in the spring of 2001. Justin is an educational psychologist with a doctoral degree in the field and he is teaching at a college level. Also, he is a parent of two gifted children. Justin’s goals in pursuing the Gifted In-Field Endorsement came from both his academic and family needs. He said,

My goals involved both professional development and family support. As an educational psychologist, the courses expanded my expertise in the area of gifted education. I have had opportunities to teach and research in this content area. As a parent of two gifted children, the courses helped me understand and support their educational and socio-emotional needs.

Justin is currently teaching educational psychology, learning and assessment, and gifted education to graduate and undergraduate students at a large southeastern university.
Beginning

Justin was confident of his level of proficiency in technology and he was actually experienced with technology. Thus he reported no frustration with online learning. He commented,

I’m fairly computer literate and am usually able to solve technical problems as they arise. During the first course, I had to learn the WebCT system. Once the basics were learned I didn’t have any problems. When there was a problem that I couldn’t address, I sent an email to the instructor and it was quickly addressed.

In addition, Justin was aware of his own learning style, and he realized that this endorsement course supported it well. He said, “The format [of the course] required that learners were fairly autonomous and independent. I liked the format because it fit my learning style.” Moreover, he reported his satisfaction with the course saying “The coursework was at the appropriate level of difficulty and quantity. The pacing was also appropriate.” As such, Justin did well in this endorsement course.

Middle

Justin engaged himself in interaction opportunities provided by the course and said, “Many times we were required to read an article or chapter and post a reaction. We were also required to post a follow-up response to a classmate’s posting.” He added, “There were also times when the instructor formed groups and we worked on a group assignment.” He continued, “We also met (in person) once a semester. The class meetings at [a place] in March and the visit to Torrance’s home provided opportunities to share learning experiences.” Even though Justin lived in the farthest location as he said, “Since I live in [a place], I was geographically the most distant classmate and physical meetings were impractical,” he attended class meetings. He said,
“[We] could interact through the discussion postings, the group projects, and the on-campus meetings. These interactions allowed for feedback and perspective. Both feedback and perspective were helpful to my learning experience.”

Although some of the students provided thoughtful responses, Justin reported that not all students provided helpful comments and said,

I think some [some students] were great. They were committed to the course, wanted to learn, and took time to produce high quality responses. Other classmates put forth minimal effort. I learned a lot from those students who were more committed to learning goals.

Also, he noted that there were two groups of students in the cohort and said, “Some classmates posted early and others waited until the last minute. There seemed to be two groups of responders (early and late). I mainly participated with and responded with the early responders.” This way Justin narrowed down his connection to those who were active participants.

Throughout the course, Justin was quite confident on his participation in the course and said, “I always felt that my sense of belonging was complete and positive.” Also, he was concerned about other students’ learning and he was positive about his contribution to others’ learning. Justin stated, “I felt we needed to help each other learn. …. I believe my desire and passion for the content did help others learn and master the content.”

When asked whether his participation has changed over time he said, “I don’t think the quantity or quality of interaction changed over time but I was more selective of the students as the course sequence progressed.” Justin explained his selection process saying,
There were some classmates that were more committed to the course than others. The evidence was found in the quality of their responses. As a result, I more closely aligned myself with those classmates that were more committed. Some classmates completed only what was absolutely necessary to earn a particular grade. However, this is no different from what one would find in a traditional classroom.

This way, Justin was involved in the process through which a larger group was gradually divided into small sub-groups on its own way with time passing.

When asked if any connection with any classmates continued, he said, “No relationships continued after the end of the online course. However, this is no different from other on-campus courses.”

End

Finally, Justin was positive about his experience with this online endorsement course and said, “I enjoyed my time during the class. As I reflect on my experience, I have positive memories and learning outcomes.” He showed great satisfaction with this course in general.

Cathy

Background

Cathy is 38-years old with 12 years of teaching experience. She started the Gifted In-Field Endorsement program in the spring of 2001. Her area of expertise is Early Childhood education. Cathy had worked as a kindergarten teacher for several years and as an instructional lead teacher for another several years. She retired in 1999 when she gave a birth to her baby. Thus, she was a stay-home-mom during the period of the endorsement program.

Cathy’s goal of pursuing the Gifted In-Field Endorsement was clearly getting an endorsement as she said,
I simply wanted the endorsement that I’d receive at the end. I chose to take it online because my local system wasn’t offering it due to financial problems. Since I wasn’t employed at the time, I also needed some Staff Development Units (SDU) hours to help renew my certificate next time. I chose to get the gifted endorsement because I enjoyed observing in the gifted classes when I did the Georgia Teacher Evaluation Program (GTEP) observations in my previous position.

She was working for a private Montessori Preschool at time of this study.

Beginning

Although Cathy adapted to handling WebCT as time passed, she was initially frustrated with technical problems in operating WebCT. She commented,

I remember more technical problems during the 1st course but most of them were probably related to my and the instructors’ inexperience with WebCT. Once, my connection failed during a test, which I was already struggling to get through, and I was very upset since the clock keeps ticking while I was trying to reconnect. It was also annoying to have to reconstruct a posting when I inadvertently hit the backspace (or whatever) and made the screen disappear and lost what I’d written. This happened less often as the courses went on.

In addition, Cathy was confused about what to do for the coursework and said, “Because there were no lectures and, for most of the courses, no assigned discussion (posting) questions, I couldn’t guess what the instructors wanted me to know.” As such she was not quite satisfied with this endorsement program.
Cathy participated in class discussions and other activities, in part forced by requirements and in part voluntarily. When asked what made her participate, she said,

Class requirements, and sometimes I had something to say about a topic and sometimes I didn’t. Although I understand why postings, chats, etc. were required, sometimes comments were “forced” or, at the very least, superficial because we had to comment whether or not we had anything valuable to add.

As such, Cathy reported, “We routinely made replies to the comments of classmates.” The routine conversations helped her in a way that she described, “The replies were often informative and sometimes thought-provoking. I think this dialog helped us think about the discussion topics.” However, Cathy mentioned that the dialog was not always helpful and said, “I actually enjoyed real dialogue on a topic and I liked reading postings that were original, well written, concise, and/or thought provoking. I hated wasting my time reading poorly constructed, repetitious opinions.” Also she added,

As in every class, there are those who impress, those who bore, and those who annoy everyone else in the group. There were 3-4 classmates who made comments that encouraged me to think about the topic, sometimes in a new way. There were a few who never had much to add and some who said too much.

Among those diverse students, Cathy picked who she interacted with based on her own evaluation on the quality of their postings. She stated,

Simply put, I replied to postings I appreciated for one reason or another. I read and ignored those I judged to be useless. My opinions of my classmates were based on my experiences (judgments, really) about the quality of their postings. I contacted those who...
I came to respect through their input through the postings when I had a question or needed assistance about a class meeting or assignment.

This way Cathy followed her own interest and needs in selecting times for which she engaged in class discussions and activities. She said,

My “interaction” with the group varied with my interest, experience, and attitude about the topic at hand. I requested help from classmates when I needed it and offered help when I thought I might be of help. The level of interaction was dependent on the specific circumstance.

Although Cathy’s attitude regarding participation changed periodically, she reported that she felt a sense of belonging. Cathy commented, “I felt that I belonged because I participated in group activities, individual activities and in postings and replies. I felt connected to the group in the sense that we were “all in this together.” She continued, “At conferences, members of our class would gather to sit together although we’d only met online. Also, replies to my postings helped me to connect emotionally with some in the group.” Despite all the comments, however, when asked if she developed any kind of relationship with other students, Cathy said, “I don’t know them well at all.” And, she added, “I came to know a few facts about specific classmates, and I could recognize a few faces after our class meetings.”

As the semesters went on, Cathy became tired of reading replies of postings on the discussion board and said,

The third and the last classes were the most difficult. The former was hard and I was just plain tired during the latter. I found it hard to get through reading all the postings without feeling as though I was wasting my time.
As such Cathy was eager to get to the end and said, “…it seemed we all just wanted to get it done and over well.”

End

Although Cathy finally felt easy and said “…we were more comfortable with our place in the group by the end,” she was uncaring of the cohort group throughout four semesters saying, “I did only what was required, no more and no less.”

**Synopsis of Four Cases**

To summarize, the four students revealed the variety of experiences that the individuals had while sharing the same experience of learning in the cohort. Karen felt more and more comfortable with the surroundings as the semesters went on, and reported she had positive experiences with learning and networking in the online cohort. In the case of Robin, she unexpectedly faced personal difficulties while going through the four semesters. Due to troubled personal situations, she ended up disengaging from the cohort. Justin was quite confident on his participation in and contribution to the learning in the cohort. He felt no differences from other on-campus courses and reported positive learning experiences and outcomes. Cathy did only what was required, and was more focused on pursuing her own learning needs and interests while participating in the cohort. As such, the four cases showed different ways of connecting or disconnecting themselves to the cohort.

**Summary**

In this chapter I presented the findings of this study. I described the three major themes: student interaction; instructor support; and the cohort model. Student interaction embraced four sub-themes including commitment; trust building; shared practice; and role adoption. Instructor support covered two sub-themes including during-the-course assistance; and course design. The
cohort model consisted of three sub-themes including shared goals; cohort group; and challenges. Then, I presented the case summaries of the four participants to describe different processes of individual’s engaging in a community. In the next chapter, I present discussions of the findings from this study.
CHAPTER V
DISCUSSIONS, CONCLUSIONS, AND IMPLICATIONS

Overview

Chapter IV summarized the findings from this study. In this chapter, I discuss the findings with reference to the research questions and related literature. Then, I present the conclusions of this study, comment on its implications for practice and suggest opportunities for further research.

Discussion

Research Q 1: How was the formation of a learning community indicated?

This question sought to identify the indicators that a learning community had actually formed among the participants of the cohort. The indicators were extracted from related literature addressed in chapter two. From the synthesis of multiple perspectives of communities (e.g., Palloff & Pratt, 1999; Rheingold, 1994; Rovai, 2001; Schwier, 2001; Shaffer & Anundsen, 1993; Wenger, 1998; Wenger et al, 2002), a community was defined, for this dissertation study, as a group of people who share common goals and practice, collaborate on tasks and activities, build interdependent relationships, and have a feeling of belonging. Among a variety of communities pursing different kinds of goals, learning communities are ones that have specific learning goals. As such, the cohort taking an endorsement program together can be developed into a learning community, if it is successful in building a community in general.

Briefly, shared goals and practice, support, and feelings of belonging were reflected in the data as evidence of a community in this study. Although the indicators are presented separately, they were, in fact, highly inter-related and worked together as evidence of community
building among the participants. Although I present the indicators as distinct concepts, it is clear that overarching and widespread descriptions clearly confirm the existence of a community within this cohort throughout the rest of this chapter.

**Shared goals and practice**

Literature indicates that to be considered a community, a group of people must share the same purpose or interest related to a certain domain (e.g., Palloff & Pratt, 1999; Schwier, 2001; Wenger, 1998; Wenger et al, 2002). Further, members of the group must share common practices and language such that unique and creative ways of sharing information evolve within the community.

The participants of the cohort had a shared goal given that they entered the cohort pursuing a Gifted In-Field Endorsement add-on. The students reported that their goals included professional development, teaching in this field and getting new positions. For example, Matt said, “I was seeking the requirements for gifted certification of my county and the state.” Similarly, Martha commented,

I was asked by the local school board and administration of my school to teach our gifted students language arts. I was given the opportunity to go on “extended day,” which gave me a considerable pay raise. So, my original goal was to become certified to teach gifted children.

While the students were extrinsically motivated to pursue the endorsement, they also revealed intrinsic motivation including, for example in case of Karen, “…to better meet the needs of my students” and in case of Denise, “…to become more knowledgeable about issues, practices, and current research about the gifted.” Whatever forced each student to enter this cohort, all of them eventually pursued the endorsement add-on.
In addition, it was clear that the students in this cohort developed shared practices, or shared ways of learning together. The most frequent comment about learning from all eight participants of this study was the learning through postings. For example, Cathy said, “We routinely made replies to the comments of classmates [on weekly readings].” In addition, the students engaged in a variety of collaborative learning activities as Denise stated, “We worked in cooperative groups, ‘chatted,’ emailed etc. about collaborative projects. Phone calls were used to ascertain roles for projects, assignments etc…” As indicated in Denise’s comment, the students made additional use of phone calls to supplement limited online communication of this program. Sarah also reported that she used phone calls “several times.” The use of the telephone means that the students developed course logistics of their own while working together in this cohort.

Support

Several research studies indicate that members of a community must make a substantive contribution to the interactive exchange pursuing mutual development (e.g., Palloff & Pratt, 1999; Rovai, 2001; Schwier, 200). Especially in a learning community, the members must collaborate on common tasks, share activities, and make meaningful contribution to discussions so that they should learn together.

As discussed above, the students in this cohort supported the learning of each other through various collaborative activities on a regular basis, including weekly postings, group activities, online chats, and phone conversations. For example, Justin said, “… we could interact through the discussion postings and the on-campus meetings. These interactions allowed for feedback and perspective. Both feedback and perspective were helpful to my learning experience.” And, Karen commented,
We discussed and brainstormed ideas for assignments through email and phone calls. We were all teaching different age levels of students, so it was good to bounce ideas of each other to help develop ideas. Since we were teaching different age levels and different subjects, we obviously couldn't work on the assignments together, but it surely helped to be able to get different teachers' perspectives on things.

This way the students in this cohort exchanged constructive feedback in a way to support mutual development. It was clear that the students had interdependent relationships and shared supportive norms in a way that they could help each other’s learning. More discussions about how they actually supported each other are presented throughout the remaining section of the chapter, and especially under research question two.

**Feelings of belonging**

Literature indicates that members of a community must have a feeling of belonging (e.g., Rovai, 2001; Schwier, 2001; Wenger et al, 2002). This feeling comes when the members understand group identity, participate in the group activities, and build intimate associations with other members.

While learning together through a variety of activities, the students reported that they felt a sense of belonging. For example, Cathy said, “I felt that I belonged because I participated in group activities, individual activities and in postings and replies. I felt connected to the group in the sense that we were ‘all in this together.’” Similarly, Matt mentioned that he felt “all the students were in the same boat.” This way all the students reported that they felt a sense of belonging to this cohort.

To summarize, because the members of the cohort shared communal goals for learning, developed shared practices and supportive norms, and expressed feelings of belonging, they
clearly met the requirements of having formed a learning community. Researchers consider a learning community as a culture of learning in which a group of people are involved in the collective and individual effort to reach shared understanding of their domain (Bielaczyc & Collins, 1999; Hill, 2002). This was true in this learning community. This cohort clearly shared a culture of learning in which the students were very engaged in their learning processes to reach communal understanding of their subject. Further, Palloff and Pratt (1999) maintained that a learning community is something evolving through the continual negotiation of how to participate together to advance their mutual learning among its members. This was true for this particular learning community. This learning community evolved along with the students’ efforts to support each other’s learning and their shared ways of learning together.

**Research Q 2: What events and circumstances impacted on the development of a community?**

This question sought to identify factors and issues supporting the development of a community and sustaining it. Interaction, engagement, and alignment among participants of a community; assistance and facilitation of instructors; and cohort model appeared to have impacted community building in this study. Findings from this study confirmed previous findings from other studies (e.g., Haythornthwaite et al., 2000; Hill et al., 2002), where researchers showed that a community does not happen by itself; rather community building depended on joint efforts of all participants including students, instructors, and designers. Discussions follow for the factors and issues found important in this study.

**Interaction, engagement, and alignment**

Schwier (2001) pointed out that once a community is formed, “communication” is the most important catalyst of a community, as communication generates interaction, engagement, and alignment among the participants in the community. He maintained that a community
develops through a natural flow of interaction, engagement, and alignment among the
participants. Interaction means participation in a community. The participation enables the
participants to engage in sharing ideas and developing processes. The engagement then enables
them to reach some degree of alignment in ways that the individual participant constantly
negotiates with others (Schwier, 2001). In this learning community, communication occurred
through weekly postings, group projects and activities, and face to face meetings, phone calls,
and private emails. A variety of communication methods was observed.

Through weekly postings, the students supported each other on a regular basis, providing
comments, sharing useful information related to class topics, and suggesting resources. For
example, Karen’s posting conveyed thoughtful comments,

James, I really like your lesson plan! I love when students deal with real life issues like
politics. Will you spend the entire class period on this lesson each day or will you only
do this part of each day? Maybe one day you could show some samples of previous
speeches and have the students "critique" them by noting things the speakers did well as
well as things the speakers could improve on. You could show samples of past
Presidential speeches as well as samples of speeches from popular movies (as long as
they weren't rated R!). This may get students even more excited and motivated.

Another idea would be to include some peer editing in the final stages of the process, a
day or two before they present. Great lesson! I also liked a lot of the websites that you

Besides weekly postings, the students were given opportunities to collaborate on multiple
tasks including group projects and activities, and face to face meetings. Robin in her posting, for
example, reflected how she collaborated in a group,
This group activity was a fine example of effective CL (collaborative learning). Each member of the group has to do something individually first, then the group needs to discuss, compromise and agree on chairpersons etc, in the end an individual reflection. It really didn't Matter if we had to group 34 items or agree on the menu for a dinner party. Here the process was the focus and I believe we all learned from being in this situation. Our group worked well together, we all did our individual share in a timely manner, shared our views and reasons and were able to quickly agree on a common way to present our findings. The chat was funny, humorous and respectful. All around an enjoyable experience. Thanks everybody! Robin.

In addition, the students initiated the use of phone calls and private emails for course-related conversations and social purposes. For example, Karen said, “The emails and phone conversations started off as a means to complete group projects. They soon developed into social purposes. And, some of the phone calls were both…. why not work on a group assignment in a social setting!!!” Also, the students used postal mail and fax to share printed materials. Robin, for example, offered sending a book and wrote,

Hi Denise & Janice, i am happy to share materials with you. There is a basic publication by [name of an organization] which is called “[name of a book].” I have an extra copy which I would gladly mail to one of you to share and work with. I would however need it back after you are done. Please let me know where I should send this to. I am also available for all kind of questions you might have. All the best with your work. Robin.

It was clear that the multiple ways the students interacted in this cohort strengthened community building among the students by generating more opportunities for interaction, engagement, and alignment that Schwier (2001) discussed. A study by Hill et al. (2002)
supports this finding. Their study indicated that one strategy of community building in online courses was ensuring that the students have sufficient opportunities, as well as a variety of ways, to interact with each other.

Another study by Haythornthwaite et al. (2000) also suggested the importance of multiple means of communication, including public and private, synchronous and asynchronous, multi-party and one-on-one, distanced and face-to-face, in sustaining group interaction. They mentioned that students want the multiple ways of interaction in online learning environments in order to support their needs to engage in class activities, tasks, social affairs, and emotional and intellectual exchanges. This was certainly evident among the students of this cohort. In this learning community, online and offline, required and voluntary, content-focused and socially oriented, one-to-group and one-to-one interactions were all observed among the students. The interaction, the engagement, and the following alignment absolutely contributed to the development of a community.

Role development

Wenger et al. (2002) mentioned that long-term interaction in a community creates common practices and communal identity, and at the same time, it also encourages differentiation among members of a community. The members assume different roles, officially and unofficially. They develop their own specialties and gain reputation. This way, each member finds their own place in the community (Wenger et al., 2002).

In the same manner, the students in this community, while interacting and engaging each other for a long time, adopted their roles through which individuals contributed most to the course. For example, Martha said, “Those of us who had been in the classroom longer than others often shared words of wisdom, or unique ideas that had helped us through the years.”
While Martha offered practical ‘words of wisdom’ as a classroom teacher, Justin’s approach was more academic and he said,

Classmates offered insightful comments on readings. Their comments were housed with the context of classroom experience. [Different from others] I helped classmates with research projects. I also tried to complete scholarly comments with references to assist classmates in understanding my arguments.

Wenger et al. (2002) pointed out that role development is a natural process of community building. They mentioned that when members of a community engage in joint activities and support each other in pursuing shared interests, they usually establish normative standards of behavior, develop roles based on their various expertise, and form relationships. Clearly, the students in this cohort adopted their roles based on individual expertise and current situations, thus there were help-providers and help-receivers in certain areas. Role development in this community was a negotiation process through which individuals identified the areas in which they could contribute the most in a mutually complementary way.

Shared responsibility

Palloff and Pratt (1999) maintained that participants in a community share, work, and live collaboratively, and thus the entrance to the community assumes a conscious commitment to the group. In the same context, Shaffer and Anundsen (1993) stated that participants’ commitment for a long period of time is one of the required conditions for a community to emerge.

This was true for the students in this community. Commitment, in this case, was assumed in a way that the students felt responsible for other students’ learning. For example, Justin said, “I felt we needed to help each other learn. …. I believe my desire and passion for the content did help others learn and master the content.” And, with responsibility came the
willingness to help each other in this community. For example, Karen said, “I really cared about the other students’ learning. I was always willing to help explain something to someone if he was confused.” She added, “There were many assignments that I was confused on and people helped explain it to me and vice versa. It was always great to be able to talk out an assignment with someone before I actually started on it.” This way these students showed willingness to help each other’s learning. Their willingness was reflected in their active interaction and engagement. As discussed above, the students were very engaged in discussions via postings, chatted, worked on collaborative projects, provided resources, and even extended their discussions to phone conversations and emails.

It was clear that membership in this community required the students to be responsible for the learning of each other. Then, shared responsibility enabled them to be actively engaged in the learning process. Finally, the engagement contributed to an enhanced sense of community among the students.

Trust building

Rovai (2001) mentioned that trust is one of the components of a so-called “classroom community,” a community occurring in the educational setting whose primary purpose is learning. He maintained that trust is the feeling that the community can be trusted and the feedback will be constructive. As such, trust building is important in a learning community because it enables its members to willingly expose gaps in their learning and expect supportive responses from other members (Rovai, 2001).

The patterns of learning together in this community certainly allowed the students to feel that they were in a safe learning environment where they could ask any questions and provide
feedback freely. In fact, postings reflected this circumstance carrying lots of questions and responses. For example, Cathy raised questions to Justin,

Justin, thanks for the additional information regarding… Although mentioned in the text, I wasn't familiar with how it worked. Do you know how the individual assignments are developed? Do the groups have a specific question to answer and each person contributes to the answer by completing the individually assigned task? If not, then what's the purpose of using groups? Perhaps motivation through group competition? I guess I should read up on this strategy instead of quizzing you...Sorry.

And, Robin gave an agreement to Justin’s comment and added her thoughts saying, Justin, I agree with your suspicion that very similar ideas are presented under different names and with slight modifications. I also believe that is due to the fact that many of these models are developed simultaneously and there is an obvious lack of communication in the process. I was reminded of the IBPYP when I read about the parallel curriculum. The four parallels are found under different headings in this curriculum approach as well. Key concepts and making connections… The learner and his/her personal learning process… and the action component… The nine conclusions… I believe this is a good indicator of reliable and enduring ideas.

In addition, Brown (2001) pointed out the importance of feelings of being acknowledged and respected in building trust in a community. In her study, Brown observed that “substantive validation” (p. 29), which is not saying just ‘good job’ but showing that your opinions are appreciated and respected, happened in the process of community building in online courses. She mentioned that substantive validation was important because the students needed to feel that their ideas were worthy of discussion.
As shown in Robin’s case above, postings reflected supportive tones and styles shared among the students, including agreement, acknowledgement, and respect. For example, Karen wrote,

Cathy, You made some very interesting comments that I completely agree with. Yes, I too think leadership should be taught in the schools. We are a very important part of their life and... I also really liked the part of the chapter you focused on... I believe that is very important and can be helped through meaningful “real life” situations in the classroom. Thanks for sharing your point of view. Karen.

In this way, the students of this cohort were successful in trust building to a degree that they could wait for others’ responses with no doubt that they would be forthcoming. As Matt mentioned, “Several times I posted questions online to be answered by my classmates....” He reported that when he posted questions, he expected they would be answered by others.

Assistance and facilitation of instructors

Researchers identified strategies that designers and instructors can employ during the design, development, and implementation of online courses to help with community building in online learning environments (e.g., Hill, 2002; Hill et al., 2002; Palloff & Pratt, 1999). Their efforts to list strategies imply the importance of the instructor’s role in community building as a designer and as a facilitator, either taking one or both, within the context of online courses.

In this community, the students reported that the instructors provided an ongoing pattern of assistance for them, ranging from embedded support of the course design to successful management and facilitation of the learning process, as for example, Justin said, “The course organization and instructor support were the key factors...” Similarly, Cathy commented,
The instructors organized the class in such a way that they encouraged group communication through assignments such as required postings and required replies to the postings of others and through small group work. During class meetings they treated the class members in a respectful manner and encouraged an exchange of ideas among members.

Stable support and successful facilitation of the instructors were reflected in the course websites as well. In case of GCTW 7200, the 2nd course of the endorsement program, for example, a total of 982 messages was posted on the discussion board by all participants including 26 students and 2 instructors during 15 weeks course period. Among 982 postings, 77 were posted by the instructors. In their postings, the instructors mainly responded to questions, and frequently cheered students’ careful comments or successful progress. And, although not very often, they also encouraged students to seek and provide help from each other. Given that the average number of postings by an individual was 36.37, with the highest number of postings being 60 and the lowest 16, 77 postings by two instructors, indicating the average number of postings by the instructor was 38.5, imply that the instructors regularly participated in discussions and supported students’ learning.

Brown (2001) reported that participation, encouragement, and modeling by the instructor facilitated community building among distance learners in online courses. It was true in this community. In particular, as Robin, said, “Both instructors were extremely knowledgeable about their field and facilitated the learning process in a professional and competent way…,” the instructors’ skills in managing and facilitating learning impacted community building. It was clear that the instructors helped the community develop more readily in this cohort.
Moreover, aside from the discussion board mentioned above, there were 13 additional messages posted by the instructors on the main page of the course website in the case of this one particular course, GCTW 7200. The instructors posted an announcement at the beginning of each week so that the students could know what was expected of them during the week. The announcement reminded the students of weekly requirements and of any assignment due. An example of weekly announcements from the week of October 5\textsuperscript{th} through 10\textsuperscript{th} read,

This week spend some time reading up on your system or model and its originator(s). Two postings: 1) Comment on the quality and quantity of information you have found so far on your model. What questions do you have at this point? And 2) Respond to someone’s frantic plea for more information on a model, or applaud someone’s thorough research into his or her model.

Don’t forget… the Scope and Sequence project is due next week!

Concerning this routine of instructors’ support, Justin, for example, stated, “She [the instructor] was also accessible via email over the website. She continually communicated with the class through the website on a weekly basis. I always felt confident in knowing what was required and when it was due.” Hill (2002) pointed out the importance of establishing a routine of support in order to keep online students on track. She mentioned that the lack of physical attendance in online courses enables the students to easily lose track of activities and assignments. Thus, Hill (2002) suggested that it can assist the students with creating “structural habits (p. 77)” in their online courses for instructors to establish patterns in term of when, where, and how information is conveyed to the students. One way she recommended is a weekly “Could”, “Should”, “Must” message. The CSM messages function to remind the students of upcoming deadlines and activities in which they are expected to participate.
In addition, the instructors in this online program set requirements for postings that each student should make per week including initiating messages and replying to messages. Most of the students indicated that the requirement was one of the important reasons they participated in class discussions, although they were intrinsically motivated to do so. For example, Karen said, “I participated in class discussions and other class activities for many reasons: they were required; I enjoyed the topics; I enjoy discussing.” Justin similarly commented, “We were required to participate. We earned points each week for our postings. While earning a good grade was not my primary motive, it was still influential.” In fact, in the case of the discussion board of GCTW 7200, about 61% of the total students’ postings on discussion boards were required ones. This implies that every week students began their discussions with task-driven, invited-by-instructors type of postings. However, aside from these initial postings, the remaining messages (approximately 39%) were student-initiated, which were naturally driven by previous discussions based on students’ volunteering participation. It was clear that course requirements, instructor’s facilitation and students’ own responsibility all together enabled the students to engage in discussions. This, again, confirms previous findings from other studies (e.g., Haythornthwaite et al., 2000; Hill et al., 2002) that a community does not happen by itself; rather community building depends on joint efforts of students, instructors, and designers.

Along with requirements for the number of postings, there were required face to face sessions at least once a semester. Hill (2002) maintained that lack of face-to-face interactions within the context of online courses can lead the students to feel isolated and disconnected. In this online program, the students reported that face-to-face meetings increased a sense of belonging. When asked to describe the things that made them feel the sense of belonging, Cathy, for example, said, “Class meetings helped…” A study by Haythornthwaite et al. (2000) reported
that when face to face contact supplemented ongoing relationships in online courses, it increased students’ satisfaction with the courses and their sense of community. In this community, Robin identified face-to-face meetings as one source of her satisfaction and feeling community saying “It was fun to get to know people in Athens once per semester. It is amazing what you can learn about your peers just from their responses and it was helpful to connect faces to the writing.”

Another way the instructors facilitated students’ learning in this online program was humanizing online environments by adding personal elements. For example, Martha commented, “At one point, my father became very ill… and Dr. Gray actually contacted me to ask how my father was doing. I felt that added a very personal touch to an online class.” In addition, instructors’ effort toward humanizing the course was reflected in the course websites. Course websites included links to student homepages where each student made a brief introduction about him/herself including academic background, current job, family, personal interest, etc. Also, the instructors encouraged the students to post a personal introductory message at the beginning of this cohort program. An example was chosen from Karen. She wrote,

Hi everyone! My name is Karen and I’ve been teaching high school English… Since I moved to Georgia last year, this past year I’ve taught… Throughout my years of teaching, I’ve taught many different grade levels and in different settings. I’ve taught in a system… I’ve also taught inclusion classes… So, for many years I’ve struggled to figure out… This, in fact, is one of the main reasons I’m working on my Gifted Endorsement. … I’m looking forward to learning more about gifted students, how and why they are labeled such, and… As an educator, I want to be able to serve every student, and I am upset with myself when I don’t feel I am doing as much as I can. After learning
more about gifted students, I hope I’ll be better able to serve my gifted students next year!

The importance of humanizing online environments was recognized by Palloff and Pratt (1999). They observed that an absence of the personal element in online learning environments enabled some students to feel isolated and alone, and thus to end up with unsatisfactory learning experiences. One way they suggested is beginning a course by posting introductions and encouraging students to share personal issues, which was actually realized and successful for community building in this cohort program.

Yet another way the instructors supported students’ learning in this online program was allowing flexibility. The importance of providing flexibility to adult learners who are taking online courses was indicated in a study by Schrum and Hong (2002). Their study suggested that giving some flexibility in assignment choices and timing for submitting assignments was a good way to help online students to complete courses on their own. Given that the students of this program were adult learners with complex responsibilities to their jobs and families, flexibility was one of the key factors enabling them to complete this program through all four semesters. For example, Robin said, “I had a good learning experience. I enjoyed the flexibility that the course gave me. I believe the balance between open-ended assignments and weekly check-ins was healthy. It allowed for free choice but simultaneously kept me on track.” And, several students reported that they particularly enjoyed the flexible schedule they could have as, for example, Karen stated, “I especially enjoyed that I could work on this class as my schedule permitted.”

Finally, the instructors facilitated students’ learning by immediately helping them solve technical problems especially in their first semester. For example, Karen said, “A few times
certain assignments were supposed to be “released” at certain times, but they didn’t show up. After contacting the instructor, she went in and fixed the problems very quickly.” Similarly, Justin commented,

I’m fairly computer literate and am usually able to solve technical problems as they arise. During the first course, I had to learn the WebCT system. Once the basics were learned I didn’t have any problems. When there was a problem that I couldn’t address, I sent an email to the instructor and it was quickly addressed.

Without resolving technical problems, the students could not go forward. Even the most motivated learners, after struggling with technical difficulties, may feel negative toward the experience. The cognitive demands of challenging technology may leave little cognitive processing left for fruitful discussion. In that regard, immediate technical support from the instructors was vital to students’ learning and their positive experience. Hill (2002) suggested that it is important to reduce technical problems as much as possible so that they should not challenge students’ interaction and positive experience in online environments. In this online program, the instructors dedicated their efforts to reducing technical problems and their attempts were really appreciated by the students. The students frequently commented how quickly the instructors helped them solve technical problems and expressed their satisfaction with it.

Cohort model

A cohort model was one unique condition inherent in this online endorsement program. The cohort in this case satisfied a basic condition for a community to grow, as the cohort members assumed the shared goal of pursuing the gifted endorsement add-on. A study by Haythornthwaite et al. (2000) reported similar findings. It showed that the students who were enrolled in an online degree program shared common goals of completing the program, getting
their degree, and joining their chosen profession. Clearly, the students who were accepted into a program based on a cohort model knew what they pursued and thus they had shared goals from the beginning.

In addition, Brown (2001) observed that the participants who went through multiple online classes together, even if classes were not exactly based on a cohort model in her case, continually strengthened relationships, and the relationships over an extended period of time resulted in a higher level of community. As such, Brown (2001) maintained that long-term association with the same people promoted community building in online courses.

Similar happenings were observed in this group from this study. Bonds and interactive support among the students were constantly noticed and, in fact, discussed throughout this chapter. An additional excerpt, especially demonstrating emotional support, is drawn from postings on the discussion boards. Karen, for example, wrote,

Joan, It sounds like you're well on your way to finding some great information. I wish I could help you on some of it, but I don't have any of it. From what you've said, it sounds like you're doing a great job of cross-referencing information to try to find it all. Good luck with the search. I wonder if anyone else has your model who could help you find some of it? It would be great if people would share with you. I wish I had it to share! Karen Boone.

The students reported that they appreciated those same people in the cohort for their presence throughout the four semesters. For example, Robin said, “I believe it is important to keep a core of people together for the length of the course. It provides participants with the feeling of belonging and it encourages [us] to finish and hang in there.” Moreover, some of the students reported a sense of camaraderie as Karen, for example, said, “As time went on, I felt
more and more comfortable. … I felt a sense of camaraderie when we’d all meet together, even though it was only once a semester.” It appears that feeling camaraderie means feeling a high level of community because camaraderie is commonly considered a feeling of trust and friendship among a group of people who have known each other for a long time or gone through some kind of experience together. It was clear that a particular cohort model of this online program supported community building among online students by requiring those same students to follow the same sequence during their time in the program.

Moreover, Brown (2001) reported that although the participants who went through multiple online classes together formed a community, it took some time for them to really participate in their community. The students could finally become active members of a community after they spent some time in getting comfortable with technologies, course content, specific teaching method used in the courses, and virtual interaction (Brown, 2001). This was true in this group as for example, Karen commented,

I enjoyed the cohort group more and more with every class. I believe it had to do with many things: becoming more comfortable with the workings of the WebCT site, becoming more comfortable with the expectations of the professor, and becoming more comfortable with the personalities of the students in the class.

After some time for adaptation to the new circumstances, the students could really participate in and feel the community as Cathy said,

I think the group that started and finished the whole course together online became more comfortable with each other as time passed. We knew each others’ stories, faces, and background, and we’d formed our opinions about each other. …we were more comfortable with our place in the group by the end.
To that regard, the cohort model would be an appropriate choice for community building as it assures the participants long-term period during which they can adjust themselves, then become active members of a community and enjoy taking advantages of it.

**Research Q 3: How did students’ involvement in a community evolve?**

This question sought to identify processes of community involvement that individual participants followed. Although factors identified above commonly impacted community building in this cohort, individual participants in this community did not all go through the same route to a community. Rather, they engaged in the community differently depending on their individual needs while belonging to the same community. Making connection or disconnection, and forming sub-communities were noted as a typical process that individual participants proceeded in this study.

**Connection or disconnection**

Four case summaries, presented in the previous chapter, told different stories about community building. They demonstrated different ways in which individual participants made connection, and disconnection, to the community. Decisions for connection or disconnection, and how to connect, were made by individual participants depending on their needs, desire, and situations.

Brown (2001) observed that community did not happen unless participants wanted it to happen. She maintained that if participants needed or desired community for whatever reason, regardless of which was personal or academic, they found it.

Some saw it as an opportunity to network. Some just naturally wanted to participate and, in fact, provided some of the glue that was needed to put a community together and keep
it together. Some participants were resistant to membership in a community so they purposely did not get involved or stayed on the fringes. (Brown, 2001, p. 31)

These patterns were reflected in the four cases from this study, although not exactly the same as Brown’s observation. While one case, Karen, was more focused on the concept of community as an opportunity for personal networking, two other cases, Justin and Cathy, characterized a community as an opportunity to participate in learning. And, yet another case, Robin, provided an example of disengagement from the community. Her case showed that an adult learner with complex responsibilities to family and job might be challenged by unexpected situations. Moreover, Cathy and Justin, although they represent a concept of a community as learning together, reported slightly different needs for interacting with others and thus they revealed different levels of community and relationship. Cathy commented,

[I interacted with others] for requesting and offering information about other class projects. … [I interacted] to ask questions about each person’s work in order to clarify and expand our understanding of the model presented. I do not, however, feel that I have developed any real relationships, except that I have an idea about whom I can go to with questions to get the best answers.

Justin said,

[I interacted with others because] it was also important to share what I had learned with my classmates. My classmates usually appreciated my postings and offered valuable feedback. … As in most traditional classrooms, I feel I have “connected” with some of my classmates.

Previous studies reported similar findings directly or indirectly. Brown (2002) maintained that an online community was present for some participants and not for others, and it
could be experienced at any of three different levels: having friends or acquaintances with whom participants regularly interacted, feeling part of a community, and enjoying camaraderie. And, Haythornthwaite, et al. (2000) observed that community members varied in their level of engagement in a community, from extremely slim or slight attachment to a community, to highly active and immersed members. It is easily assumed that a different level of engagement would result in a different level of feeling community. In fact, a community, or feeling of community, experienced by an individual student in this cohort varied even though all students belonged to the same community and reported feelings of belonging to the community in their own way regardless of each individual’s concept of a community.

Sub-communities

Several sub-groups emerged within this community as time went on. The students, even though not all students, formed their own group where they held more intimate affiliation. Wenger et al. (2002) explains this happening as a natural process occurring in a community. They mentioned that communities often have several sub-groups, and the sub-groups share topics or geographic location and usually develop strong local identities. They stated that “these nested sub-communities within a single large community allow members to be very engaged locally while retaining a sense of belonging to the larger community.” (p. 36)

In the case of this community, there already were several sub-groups sharing physical location from the beginning. Several groups of students were teaching at the same school while participating in the classes together, and thus they collaborated ‘in person’ with colleagues at school as well as collaborated ‘online’ with others in the cohort. For example, Matt reported,
Several times I posted questions online to be answered by my classmates. At the same time, my friend [a colleague at same school] and I worked on many projects together, each of us trying to understand the concepts illustrated by the project.

He continued, “I cannot imagine trying to take theses 4 courses online without having someone else to see and talk to in person. …we shared opinions on all of our assignments throughout the duration of the classes.” And, Martha said, “We [all students in the cohort] collaborated with the weekly assignments and on many projects. I also had one other teacher here my school who was taking the class. She and I collaborated also.” It appears that the students developed interdependent relationships among members of the local group, and shared supportive norms across the whole group, through face to face collaboration and through online collaborative activities.

In addition to the local groups, the students themselves picked who they interacted with. Selection was based on their own evaluation or judgment on the quality of postings made by others. For example, Justin stated, “There were some classmates that were more committed to the course than others. The evidence was found in the quality of their responses. As a result, I more closely aligned myself with those classmates that were more committed.” And, Cathy commented,

Simply put, I replied to postings I appreciated for one reason or another. I read and ignored those I judged to be useless. My opinions of my classmates were based on my experiences (judgments, really) about the quality of their postings. I contacted those who I came to respect through their input through the postings when I had a question or needed assistance about a class meeting or assignment.
Furthermore, Karen allowed her group to develop into lasting friendships. She said, “As I continued through the courses, I became closer to some members in the class. The phone calls with a few people developed into friendships with people I still keep in touch with.” This way, while the students belonged to a larger group, not all but a majority of students developed more tight connections with a few students forming their own sub-group. Sub-groups were either based on physical location or individual needs regardless of which were academic or personal.

**Study Conclusions**

The conclusions presented below have accrued or evolved from data analysis described in chapter three. Evidence for the conclusions was presented in earlier chapters. In this chapter, I present a diagram describing the overall conclusions of this study and summarize them.

![Diagram of community building](image)

**Figure 5.1.** A model of community building: Sources and processes supporting a community

1. Community indicators extracted from related literature (e.g., Palloff & Pratt, 1999; Rheingold, 1994; Rovai, 2001; Schwier, 2001; Shaffer & Anundsen, 1993; Wenger, 1998; Wenger et al, 2002) were found in the data. Indicators included shared goals and
practice, support, and feelings of belonging. In this study, the students of the cohort shared the communal goal of pursuing the endorsement add-on. Through interaction, engagement, and alignment, the students showed that they supported each other’s learning, developed shared practice, and felt a sense of belonging.

2. Community building in this online cohort was a result of the interaction of students, instructors, and circumstances of this particular program. Interaction, engagement, and alignment among the students; assistance and facilitation of the instructors; course structure; and cohort model appeared to have impacted community building.

3. While interacting with others, the students adopted roles based on their expertise. It appeared that role development was a negotiation process through which individuals found their areas to which they could most contribute as a member of a community. Also, the students assumed shared responsibility of supporting each other’s learning and successfully built trust so that they could ask any questions and provide feedback freely. This pattern of learning together allowed the students to form shared practice and feel a sense of belonging to the cohort. As such, shared responsibility, role development, trust building, and shared practice emerged as important factors for the creation and sustaining of the community. And, they were in fact achieved through interaction, engagement, and alignment among the students.

4. What the instructors did for the design and implementation of the courses supported community building. Course structure, including a general organization of the course (e.g., weekly discussion, chatting, face to face meeting, etc.) and tasks to be completed by the students (e.g., weekly requirements, group projects, etc.) called for frequent communication among the students and contributed to their feelings of belonging. In
addition, the instructors’ facilitation and assistance during the courses encouraged ongoing interaction among the students.

5. The cohort model provided good conditions for a community to grow. The cohort model assured the students a long-term period during which they intensively engaged with each other. As a result, the students of the cohort readily formed the community and became active members of the community.

6. Although the students belonged to the same community, they revealed diverse experiences in it. They engaged in the community differently depending on their individual needs, desire, and situations. The individual students reported different concepts of a community, different levels of involvement in the community, and different ways of connecting with others in the community.

Implications

Implications for Practice

The results of this study can inform educational practice about online learning, and in particular, community building in online courses. The following suggestions are made for online educators interested in building and supporting a community in their online courses.

The first implication relates to the diversity of a community experienced by individual students of that community. Brown (2001) mentioned that community was present for some participants and not for others although they were in the same online class which was frequently considered having a lot of community, and the findings of the present study reinforce her statement. It is probably true that all students do not feel the same degree of intimacy with others, and they do not all have the same desire to be connected with others while learning together in a community. Online educators need to remember that their students might make a
distinction between building a learning community where students collaboratively work toward the same goal, and feeling a sense of community with which some might be satisfied and others might not ever want. In addition, Haythornthwaite et al. (2000) observed that individual students varied in their level of engagement in a community, and the findings of this study support the students’ differences from participating in learning to developing friendships. Online educators would do well to understand that they can assist with community building by employing various strategies, but the decisions to engage or disengage, and how to engage in a community, are made by individual students.

A second implication relates to the existence of sub-communities within a single community. Wenger et al. (2002) stated that the development of sub-communities within a large community is natural. The sub-groups often emerge with time going on, and members of a sub-group usually develop strong local identity while retaining a sense of belonging to the larger community (Wenger et al., 2002). The findings of this study contribute to the same literature base. This study showed that not all, but a majority of students developed interdependent relationships among members of their local group while sharing supportive norms across the whole group. It appears that the emergence of sub-communities does not mean splitting the large group; rather sub-groups enable their members to develop stronger relationships. The strong local relationships allow students to easily maintain their connections with the larger community. Online educators would do well to nurture sub-communities, if they notice them forming, rather than discourage them.

A third implication related to the community-building strategies is related to the opportunities for interaction available to students in online courses. Ongoing interaction is considered a vital source through which a community naturally arises and develops (Schwier,
2001; Wenger, 1998). In addition, studies on community building in online courses address the importance of providing the students with sufficient opportunities, as well as a variety of ways, to interact with each other (Haythornthwaite et al., 2000; Hill et al., 2002), and the findings of this study reinforce the importance of interaction in creating and supporting a community. Online educators can insure their students have sufficient opportunities for interaction by setting posting requirements including numbers of initiating messages and replying messages, balancing individual and group projects, including authentic tasks for which the students have actual needs and thus they may initiate more interactions with other students to pursue their needs, and employing multiple means of communication (e.g., electronic discussion boards, online chat, phone, email, etc.).

A fourth implication related to the community-building strategies concerns the psychological distance that online students may feel. Palloff and Pratt (1999) mentioned that some online students may feel isolated and alone when the personal element is missing. Equally, this study showed that instructors’ effort to humanize online environments enhanced students’ sense of belonging to the community. Online educators are encouraged to initiate personal contact with their students, begin a course with individual postings of introductions, and encourage creating and sharing individual homepages.

In addition, researchers are concerned that online students easily lose touch with others and fail to maintain their connection to the community (Hill, 2002; Moore & Kearsley, 1996). Thus, it is important to remind online students that someone is out there (Hill, 2002). In a similar context, the findings of this study support the necessity of an instructor’s consistent assistance and again the necessity of ongoing interaction during the course. Online educators can assure their students that they are not alone by continually communicating with them through
individual messages or a course website on a weekly basis. Another way to promote students’ feelings of connectedness is to require them to participate in a variety of group work, set the tone for interaction and encourage an ongoing pattern of assistance for each other.

A fifth implication relates to the degree of skills students have with engaging in and maintaining fruitful discussions. Literature addresses the importance of effective group discussions that usually lead to the creation of a learning community with feelings of connectedness among students (Richardson & Turner, 2001). Harasim (1991) maintained that students can engage in meaningful discussion by posing and answering questions, negotiating and elaborating ideas, and expanding on or debating points made by others. To assist with maintaining meaningful and engaging discussion, online educators need to model what it is and how it is supposed to be done. In fact, a study by Richardson and Turner (2000) provides evidence that the skills of the instructor in moderating the online discussions are handed on to the students. The study reported that because instructors used online discussion as a tool for course management, students followed that model and thus they neither contributed much to the discussion nor did they engage in meaningful exchanges. Again, online educators are encouraged to model discussion and take on leadership in fruitful interaction.

Finally, a sixth implication deals with the benefits of a cohort model in community building. A study on community building addressed the importance of long-term association among a group of people as a condition on which a community arose (Brown, 2001; Rheingold, 1994; Wenger, 1998), and the findings of this study support that the relationship among the students of the cohort over an extended period of time resulted in a higher level of feeling of community. Online educators who are planning an online program, regardless of whether it is a
degree or non-degree program, are encouraged to design it based on a cohort model which keeps a core of people together throughout the period of several semesters.

**Implications for Research**

Through this study, three major areas for further research can be identified. The area of exploration arising from this study is the identification of a relationship between characteristics of online educators and successful community building. This study demonstrated the importance of the role of online educators as instructors and/or designers of online courses in community building. Research is needed that investigates what characteristics of online educators, such as educational philosophy, learning goals, leadership style, and etc., lead to the creation of a community and successful sustaining of it.

Another area of needed research is the identification of conditions that are most supportive in community building among distance learners. First, the amount of time needed for a community to form must be considered. Brown (2001) suggested that it takes time for the students of online courses to really participate in their community even after they form a community. In fact, the students of this community showed that they could really participate in and feel part of a community after some time for adaptation to the new circumstances. Research is needed to identify how many semesters are the minimum amount of time needed for students to be very engaged in their community. Second, the effect of synchronicity in community building among distance learners is still somewhat unknown. This study showed that both asynchronous and synchronous communications, for example, electronic discussions and phone conversations, contributed to community building. Moreover, the students of this cohort reported frequent, voluntary uses of phone calls and small group chatting, although the main communication means for the program was the electronic discussion board. Research is needed
to examine whether and how additional synchronicity might impact community building among distance learners. Third, the group composition, heterogeneous grouping or homogeneous grouping, of students enrolled in an online program is considered. This study demonstrated that diversity among the students in terms of backgrounds, current jobs, teaching grades and subjects, etc. had advantages and disadvantages in the development of this community. Diversity helped with role development among the students in this cohort. At the same time, however, the diversity was experienced as obstacles by some students and prevented them from connecting with others. Research is needed to identify what degree of, and in what areas, differences and similarities among students are acceptable in attempting a community.

Yet another area of needed research is the identification of specific instances in which establishing a community is really necessary and/or can be beneficial. Hill (2002) mentioned that building a community might not always be necessary. Depending on different goals for online learning, encouraging participants to establish a community is sometimes more important than encouraging them to get more information and do other things with it (Hill, 2002). Similarly, there may be times when this is not necessary. In this study, it appears that establishing a community was beneficial for the students in sharing feelings of connectedness, supporting each other’s learning, and staying in the cohort throughout the four semesters. In addition, research (e.g., Brown, 2001; Haythornthwaite et al., 2000; Hill, 2002) including this study demonstrated that not all participants of online courses were interested in having a community, and further not all participants felt feelings of community in a same way even though they were in the same community. Again, building a community or feeling community may not always be necessary for distance learners involved in online learning. Research is
needed to identify under what circumstances of online learning and for whom establishing a community is most beneficial.

Implications for Methodology

The results of this study also can provide methodological recommendations for further research. The first recommendation relates to methods of data collection. In this study, as the participants were distance learners for whom traveling was an inconvenience, data were collected through open-ended questionnaires and follow-up email communications. However, there certainly were limitations of open-ended questionnaires. Although the participants directly answered each question with clear bottom lines, they did not write anything beyond the answers to those specific questions. It would be desirable for researchers who choose to do a similar type of research to try to use face to face interviews in order to produce a more detailed and rich set of data. Without face to face interviews, steps should be taken to engage the participants in more of a dialogue than a questionnaire.

In addition, as the participants were basically volunteers from among all students enrolled in the cohort, they may have represented a group who were quite satisfied with learning in this cohort. If the remaining unsatisfied students were recruited for this study, negative factors impeding community building would have been identified as results. It would be desirable for researchers who plan on doing a similar type of research to attempt to gain access to unhappy students for a broader perspective about community building.

A second recommendation concerns data analysis. In this study, the postings were mainly used as a means of triangulation of the findings from the questionnaires. Seventy percent of the total postings were closely related to specific content, and thus were excluded as they were not under the focus of this study. The remaining 30% postings were used for this study.
However, it might have been possible to extend the current study or design another study if those 70% content-related postings were analyzed.

In addition, four case summaries could have talked more about the individuals if there were more demographic information for each participant. By including more personal information, it would have been possible to present personalized models for other potential online students and/or to let them know potential barriers they would face while taking online courses.

**Summary**

In this chapter I answered my research questions based on the findings of this study making references to related literature. Then, I made the conclusions of this study as neatly as possible. Finally, I drew several implications for practice and research concerning the creation and sustaining of communities in online courses.

Successful community building in online courses is a result of synergetic interaction among students, instructors and/or designers, and circumstances, and this study reinforces it. Although this study confirms the general findings of previous research that students, instructors and designers of the course should together give their efforts toward community building, it is unique and significant because it specifically identifies sources and processes that impact community building in three aspects including students, instructors and designers, and the characteristics of the course.

Establishing a community is expected to be a central issue among online educators within the current trend of increases in offerings of online degree programs and establishment of virtual universities. As researchers contributing to the area of online learning, investigating issues related to communities for distance learners is our main concern.
REFERENCES


Schrum, L., & Hong, S. (2002). From the field: Characteristics of successful tertiary online students and strategies of experienced online educators. *Education and Information Technologies, 7*(1), 5-16.


APPENDICES
### Appendix A. The samples of syllabi for the courses

**<GCTW 7200 Syllabus>**

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<td>Prerequisite(s)</td>
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<th>Course Goals</th>
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<td>Course Goals</td>
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9. Designing an instructional scope and sequence of articulated learning experiences for elementary, middle, or high school gifted students.
10. Designing qualitatively differentiated instruction for high ability students.
11. Using appropriate instruments and methods to assess the qualitative differentiation of curricular programs for the gifted and talented.

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<th>Textbooks</th>
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<td>Required reading</td>
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<th>Policies</th>
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| Introduction | Adherence to the following policies will enable us all to work together better and ensure that you are credited for work submitted: 
1. All assignments, unless otherwise directed, should be submitted through the assignments tool of WebCT. 
2. Be sure that your assignments are submitted to the right place and are labeled correctly. 
3. Work must be submitted within the window of time that it is due. Work will not be accepted early or late. 
4. Whenever appropriate, students are required to use APA (4th or 5th edition) for format of writing. 
5. Because this is a university course, the free exchange of ideas and respect for ideas that may be very different and conflicting is encouraged. 
6. We will adhere to Honesty Policy. 
7. Please use professional ethics in not discussing the specific problems of any school system, school, or student in an identifying manner. |
| Additional information | Rationale: 
1. This will enable to you be notified when your assignment is received, get written feedback on the assignment, and have the grade posted as soon as the assignment is graded. It will also reduce or eliminate the problem of lost assignments. 
2. The problem of assignments without names or identifying labels should be greatly reduced by using the assignment tool. 
3. If you must go out of town when an assignment is due, you must make arrangements to submit the assignment or accept a zero for that work. 
4. This ensures consistency and helps you learn the style that is used in professional journals in this field and most other areas of the social sciences. 
5. You are encouraged to challenge or disagree with anyone in the class, including the instructors, without negative consequences. However, all exchanges should be respectful and free of intentional offense to others. 
6. Please familiarize yourself with the Academic Honesty Policy. 
7. It is important that you be able to discuss educational issues freely, but not necessary to compromise the integrity or privacy of any individual or institution. |
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<tr>
<td>Introduction</td>
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RESPONSIBILITY: Students are responsible for checking the webpage frequently for announcements, assignments, emails, etc.

TIMELY SUBMISSION OF ASSIGNMENTS: You are given some autonomy over deciding when and where to complete your assignments. In order for the instructors to keep up with the large number of submissions in the short time, you must submit your assignments within the assigned time limits. Because electronic problems are always a possibility, be warned that waiting until the last minute is ill advised. Late assignments, if accepted, will have points deducted.

ACADEMIC HONESTY: We follow the University of Georgia’s rules and guidelines for academic honesty. Academic honesty is defined broadly and simply -- the performance of all academic work without cheating, lying, stealing, or receiving assistance from any other person or using any source of information not appropriately authorized or attributed. The complete guidelines on are available online at Academic Honesty Policy, or you can request a paper copy.

COURTESY: Please be sure to treat all members with courtesy and respect at all times. For an overview of rules for online communication see Netiquette.

Grading Scale

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<tr>
<td>B</td>
<td>260 - 292</td>
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<tr>
<td>C</td>
<td>228 - 259</td>
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<td>D</td>
<td>195 - 259</td>
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<td>F</td>
<td>&lt; 195</td>
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Course Information

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<tr>
<td>Course number</td>
<td>GCTW 7400</td>
</tr>
<tr>
<td>Course description</td>
<td>Measurement of intellectual, achievement, motivation and creative abilities for identification and evaluation, with a focus on administering and scoring the Torrance Tests of Creative Thinking; assessment of abilities in special populations of the gifted.</td>
</tr>
<tr>
<td>Course date</td>
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</tr>
<tr>
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<td>Prerequisite(s)</td>
<td>Course in tests and measurements OR complete module on tests and measurements</td>
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Instructor Information

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<th>Marie Gray</th>
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<td>Office location</td>
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</tr>
<tr>
<td>Office hours</td>
<td>Daily, by appointment</td>
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<tr>
<td>Phone</td>
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Course Goals

Objectives: The student will be able to:

1. Interpret standardized test scores and the properties of tests that can affect their usefulness: reliability, validity, standard error of measurement, confidence bands, norms, mean, median, mode, percentiles, etc.
2. Become familiar with the scoring of the Torrance Tests of Creative Thinking -- Figural Forms A & B.
3. (Optional—become a certified scorer and receive certificate.).
4. Design and use appropriate assessments for gifted students: portfolios, observations, learning logs, and rubrics, as well as teacher-made tests and grades.
5. Identify some issues and problems related to assessment of students for gifted programs.
6. Identify appropriate measures to assess the various abilities of diverse students.
7. Evaluate the appropriateness of assessment instruments for different purposes and populations.
8. Demonstrate knowledge of various identification models such as the Revolving Door, the Pyramid Model, the Frasier Talent Assessment Portfolio, matrix models such as Baldwin’s, Renzulli’s Talent Profile, the Georgia Model, and various modifications by local school districts.
9. Design a screening and identification procedure to fit your school situation.

Grading Scale

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<td>720-809</td>
<td>B</td>
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<td>630-719</td>
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<td>540-629</td>
<td>D</td>
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<tr>
<td>&lt;540</td>
<td>F</td>
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Policies

1. CLASS PARTICIPATION: Having completed the assigned readings, students should be actively involved in class discussions and activities by posting as required every week. Be prepared to share reflections and opinions (personal, conceptual, professional) to enhance the learning environment of the class.
2. RESPONSIBILITY: Students are responsible for checking the webpage frequently for announcements, assignments, emails, etc.
3. TIMELY SUBMISSION OF ASSIGNMENTS: You are given some autonomy over deciding when and where to complete your assignments. In order for the instructors to keep up with the large number of submissions in the short time, you must submit your assignments within the assigned time limits. Because electronic problems are always a possibility, be warned that waiting until the last minute is ill advised. Late assignments, if accepted, will have points deducted.
4. ACADEMIC HONESTY: We follow the University of Georgia’s rules and guidelines for academic honesty. Academic honesty is defined broadly and simply -- the performance of all academic work without cheating, lying, stealing,
or receiving assistance from any other person or using any source of information
not appropriately authorized or attributed. The complete guidelines on are
available online at UGA Academic Honesty Policy. or you can request a paper
copy.
5. COURTESY: Please be sure to treat all members of the class with courtesy and
respect at all times. For a nice overview of rules for online communication see
Netiquette.

<table>
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<tr>
<th>Course Requirements</th>
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<tr>
<td>Introduction</td>
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| You may do the readings and assignments whenever you like as long as they are in
  by the due date. You are expected to take part in the discussion topics listed on the
  discussion links. These are coordinated with the topics each week, but you may
  contribute to the discussions (at least one posting and one response) at any time that
  you are ready to knowledgeably contribute. |

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<td>2. Course Packet readings on Assessment.</td>
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<tr>
<td>3. Web readings linked to Section I</td>
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<tr>
<td>4. Discussion Topic 1</td>
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<td>5. Pretest and (if necessary) Posttest</td>
</tr>
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<td>Section II</td>
</tr>
<tr>
<td>1. Text pp. 62-78; 103-116; 117-167; 201-213; 243-257</td>
</tr>
<tr>
<td>2. Web readings linked to Section II</td>
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<tr>
<td>3. Discussion Topics 2, 3, 4</td>
</tr>
<tr>
<td>4. Assignments 1. Blueprint or Portfolio; 2. Observation Chart or Social Skills Checklist; 3. Grading</td>
</tr>
</tbody>
</table>

| Section III                               |
| 1. Pages from TTCT Scoring Manual and CD; Research |
| 2. Course Packet Readings on: Identification, intelligence, achievement |
| 3. Web Readings linked to section III      |
| 4. Discussion Topics 5, 6, 7              |

| Discussions by week:                      |
| 1. Test Characteristics-On what basis does most school districts really choose tests?  |
| Why?                                      |
| 2. There are published ethics for the use of standardized tests. What changes would you make to these to apply them to teacher-made tests? |
| 3. Is there any reason for a teacher to assess social skills? Why? |
| 4. Explain your philosophy of assigning grades and why you have chosen it. |
| 5. How is creativity assessed in your district? What do you think of that? |
| 6. How are intelligence and achievement assessed in your district? Your opinion? |
| 7. How is motivation assessed for your students? Do you think it is the best way? |
Appendix B. A sample of a questionnaire for the 1st round

CONSENT FORM

I ________________________ agree to take part in the study titled “Building a learning community: A case study in an online cohort program within the context of higher education” being conducted by Sunjoo Hong (sunjhong@coe.uga.edu), a doctoral student in Instructional Technology Department at UGA, under the direction of Dr. Lynne Schrum (Instructional Technology Department, University of Georgia, lschrum@coe.uga.edu). I understand that I do not have to take part if I do not want to. I understand that my activities are related to research that may be published. I can stop taking part without giving any reason, and without penalty. I can ask to have all of the information about me returned to me, removed from the research records, or destroyed.

The goal of the study is 1) to identify factors or issues that are important in the creation and support of a learning community in an online cohort program, and 2) to describe students’ learning experiences in the online learning community.

I understand that I will not personally benefit from participating in this study, however there are some benefits from the results of this study as they may help online educators improve current online courses and thus students can have better online learning experiences.

If I volunteer to take part in this study, I agree to do the following things October through November 2002:

1. I will complete this consent form that allows the researcher to use my answers to the open-ended questionnaire as data for the study. I will mail or fax this to the researcher. This will take less than 10 minutes.

2. I will complete the open-ended questionnaire that investigates my experiences with the online certificate program. I will have several options among which I can choose to complete the questionnaire: web-based questionnaire, email or email attachment, or paper-based questionnaire received by mail. And then, I will send my answers to the questionnaire to the researcher (or submit in the website) via email or mail. This will not take more than 30 minutes.

3. After completing the open-ended questionnaire, I will have a chance of having my name entered for a drawing. The researcher will give a winner a $25 gift card for Amazon.com: This will take about 5 minutes.

4. I may have the opportunity of being selected as a potential participant for the next open-ended questionnaire (which will occur December 2002 through January 2003). I can either accept or reject the opportunity.

- Please contact me for a follow-up questionnaire [Please initial]
- Please do not contact me for a follow-up questionnaire [Please initial]

I understand that this participation is entirely voluntary. These will cause no discomforts or stresses to me as well as no risks. My participation will be confidential. However, I understand that communication by Internet limits the confidentiality that can be guaranteed due to the technology itself. For this Matter, the researcher will implement password protection for the web-based questionnaire, so that the probability of the web-based questionnaire being accidentally searched by anyone else will be reduced. All the results of this participation will be confidential, and will not be related in any individually identifiable form without my prior consent, unless otherwise required by law.

The investigator will answer any further questions about the research, now or during the course of the study (583-1907/542-3810).

I understand that I am agreeing by my signature on this form to take part in this study and understand that I will receive a signed copy of this consent form for my records.

________________________________                  _______________________________
Signature of Researcher          Date    Signature of Researcher          Date

For questions or problems about your rights please call or write: Chris A. Joseph, Ph.D., Human Subjects Office, University of Georgia, 606A Boyd Graduate Studies Research Center, Athens, Georgia 30602-7411; Telephone (706) 542-3199; E-Mail Address
Open-ended Questionnaire I

This questionnaire was designed to investigate your learning experiences in the four semester-long online cohort program. Please describe your experiences, thoughts, feelings, and whatever as much as you can.

1. What were the goals with which you are taking this online course?

2. Can you describe the ways in which you collaborated on any tasks with other students in this online course?

   2-1. Have they changed over time? If so, how?

3. Can you describe any experiences in which you helped other students or you were provided any kinds of help from others while taking this course?
4. How well do you think you know the students in this course? Please describe any kinds of relationships with other students you have developed.

4-1. How they have changed throughout four semesters?

4-2. Do they continue till now even after the end of the online course?

5. Tell me about your sense of belonging in this course. Can you describe the ways in which you felt connected to the cohort group, individually or as a whole?

5-1. Have they changed over time? If so, how?
6. How did you care about other students’ learning? Do you think your participation in and contribution to the course influenced those of others?

7. Please tell me the types of contacts you made with the other students in the online course OUTSIDE of the online bulletin board (private email, instant messenger, telephone, or even physical meeting) and how often you used those things.

8. Also, try to remember and tell me how often you emailed or called to the instructor and why.

The following questions are intended to identify potential participants in the next e-mail interview. Please name persons you can consider.

Considering the people in the program,

- Please tell me up to three with whom you would like to have dinner:
- Please tell me up to three that you would ask if you had a question about an assignment:
- Please tell me up to three that you would ask about a work related question:
Please fill out the following demographic information.

- Age?
- Gender?
- Teaching career
  - How long have you taught?
  - What year are you teaching?
  - What subject(s) are you teaching?

THANK YOU VERY MUCH FOR YOUR PARTICIPATION.
Appendix C. A sample of a questionnaire for the 2nd round

CONSENT FORM

I ______________________ agree to take part in the study titled “Building a learning community: A case study in an online cohort program within the context of higher education” being conducted by Sunjoo Hong (sunjhong@coe.uga.edu), a doctoral student in Instructional Technology Department at UGA, under the direction of Dr. Lynne Schrum (Instructional Technology Department, University of Georgia, lschrum@coe.uga.edu). I understand that I do not have to take part if I do not want to. I understand that my activities are related to research that may be published. I can stop taking part without giving any reason, and without penalty. I can ask to have all of the information about me returned to me, removed from the research records, or destroyed.

The goal of the study is 1) to identify factors or issues that are important in the creation and support of a learning community in an online cohort program, and 2) to describe students’ learning experiences in the online learning community.

I understand that I will not personally benefit from participating in this study, however there are some benefits from the results of this study as they may help online educators improve current online courses and thus students can have better online learning experiences.

If I volunteer to take part in this study, I agree to do the following things December 2002 through January 2003:

1. I will complete this consent form that allows the researcher to use both 1) my answers to the open-ended questionnaire and 2) my online postings of 4 semesters on the discussion boards for GCTWEB (Gifted, Creative, & Talented Training on the WEB, which was taught by Dr. Bonnie Cramond Spring 2001 through Summer 2002) as data sources for the study. I will mail or fax this to the researcher: This will take less than 10 minutes.

2. I will complete the open-ended questionnaire that investigates my experiences with the online certificate program. The questionnaire will be given by mail or as an email attachment depending on my preference. I will fill out the questionnaire by writing or typing (again depending on my choice) and then I will send it to the researcher either via mail or email: This will not take more than 40 minutes.

3. If necessary, I will be asked to answer follow-up questions once or twice (maximum) via email or phone: This will not take more than 30 minutes.

4. After completing the open-ended questionnaire, I will have a chance of having my name entered for a drawing. The researcher will give a winner a $25 gift card for Amazon.com: This will take about 5 minutes.

I understand that this participation is entirely voluntary. These will cause no discomforts or stresses to me as well as no risks. My participation will be confidential. However, I understand that communication by Internet limits the confidentiality that can be guaranteed due to the technology itself. For this Matter, the researcher will implement password protection for the web-based questionnaire, so that the probability of the web-based questionnaire being accidentally searched by anyone else will be reduced. All the results of this participation will be confidential, and will not be related in any individually identifiable form without my prior consent, unless otherwise required by law.

The investigator will answer any further questions about the research, now or during the course of the study (583-1907/542-3810).

I understand that I am agreeing by my signature on this form to take part in this study and understand that I will receive a signed copy of this consent form for my records.

________________________________                  _______________________________
Signature of Researcher          Date    Signature of Researcher          Date

For questions or problems about your rights please call or write: Chris A. Joseph, Ph.D., Human Subjects Office, University of Georgia, 606A Boyd Graduate Studies Research Center, Athens, Georgia 30602-7411; Telephone (706) 542-3199; E-Mail Address
Open-ended Questionnaire II

The following questions are intended to know what were the important things that have influenced your learning in the cohort program. Please describe as much as you can.

1. What were the important things that made you complete this online course?

2. What were the important things that made you participate (or not participate) in class discussions or, if any, other class activities?

   2-1. If you think your participation has changed over time, please describe why and how the change has occurred.

3. What were the important things that made you interact (or not interact) with other students?
3-1. If you think your interaction with others has changed over time, please describe why and how the change has occurred.

4. What were the important things that made you feel belonging (or not feel belonging) to the cohort group?

4-1. If you think your feeling has changed over time, please describe why and how the change has occurred.

The following two questions are intended to know what your learning experience in this cohort program was like. Please tell me anything you felt while you were in this online course.

1. Tell me about your learning experiences, positive or negative, or something unique in this online course. And, what were the things that made you felt that way?
2. Tell me how your thoughts and feelings to the cohort group, regardless to any individuals, to the group as a whole, or even to the instructor, have changed while you were moving through the four semesters.

3. How do you think of the instructor? Please take a time to think of how she has influenced your participation in the course, your learning, and your feeling and describe them.

4. How do you think of other students in this course? Please take a time to think of how other students have influenced your participation in the course, your learning, and your feeling and describe them.
5. Please describe any experiences in which you had technical problems in the online course, and how you dealt with those problems.

THANK YOU VERY MUCH FOR YOU PARTICIPATION.
Appendix D. A sample of code book

<table>
<thead>
<tr>
<th>Goals</th>
<th>Gifted endorsement add-on</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intrinsic motivation</td>
<td>Professional development, expending expertise, getting knowledgeable</td>
</tr>
<tr>
<td>Extrinsic motivation</td>
<td>Getting new position</td>
</tr>
<tr>
<td>Obligatory collaboration</td>
<td>Collaborations through postings, group projects, group activities, and f2f meetings among all students, which were required by instructors as course requirements</td>
</tr>
<tr>
<td>Additional contact</td>
<td>Voluntarily initiated communications among a few students via phone calls or private emails for course-related discussions and/or social purposes</td>
</tr>
<tr>
<td>Course logistics</td>
<td>Use of off-line communication means such as phone call, snail mail, and fax</td>
</tr>
<tr>
<td>Physical presence</td>
<td>Having co-workers at same school taking the cohort together, which is essential to keeping oneself stay in the cohort</td>
</tr>
<tr>
<td>Shared accountability</td>
<td>Feeling responsible for each other’s learning, such as clarifying confusing assignments together, and dividing the workload and doing each own fair share</td>
</tr>
<tr>
<td>Regular support</td>
<td>Assistance through postings, such as providing and receiving comments, helping on finding information about assignments or project, and suggesting recourse</td>
</tr>
<tr>
<td>Role development</td>
<td>Tacit adoption of roles through which individuals contribute most to the course, basically coming from unequal exchanges among students based on individual expertise and current position</td>
</tr>
<tr>
<td>Open-mindedness</td>
<td>Posting questions and requests answered by classmates</td>
</tr>
<tr>
<td>Increased comfort</td>
<td>Becoming more comfortable with other students, as well as with WebCT (which generally means ‘learning online’), as time went on</td>
</tr>
<tr>
<td>Sub-communities</td>
<td>Small groups (of two or three students) working together (for group projects) and/or developing friendship</td>
</tr>
<tr>
<td>Deliberate alienation</td>
<td>Making no efforts to connect with classmates, usually due to complex personal situations</td>
</tr>
<tr>
<td>Virtual acquaintance</td>
<td>Being thought to know each other after a long time, intensive, online communication</td>
</tr>
<tr>
<td>Feeling belonging</td>
<td>Taking part in the class by learning together and/or connecting with others</td>
</tr>
<tr>
<td>Camaraderie</td>
<td>Feeling trust and friendship after going through the cohort together</td>
</tr>
<tr>
<td>Mutual recognition</td>
<td>Giving credit to each other about the influences on each other’s learning</td>
</tr>
<tr>
<td>Online barriers</td>
<td>Unfamiliarity with online class</td>
</tr>
<tr>
<td>Voluntary contribution</td>
<td>Willingness to help others learn</td>
</tr>
<tr>
<td>Managerial flexibility</td>
<td>Adjusting individual schedule with instructor</td>
</tr>
<tr>
<td>Instructor’s roles</td>
<td>Positive reactions of students to what instructor did for designing (e.g., organization) and implementing courses</td>
</tr>
<tr>
<td>Instructor’s attitude</td>
<td>Positive reactions of students to how instructor did during the courses</td>
</tr>
<tr>
<td><strong>Goals</strong></td>
<td><strong>Gifted endorsement add-on</strong></td>
</tr>
<tr>
<td>--------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Early respondents</td>
<td>Those who were active and quick in postings, as well as producing high quality postings</td>
</tr>
<tr>
<td>Open-ended assignments</td>
<td>Unspecified assignments</td>
</tr>
<tr>
<td>Technical difficulties</td>
<td>Problems particularly related to WebCT and enrolment (OASIS)</td>
</tr>
<tr>
<td>Tons of work</td>
<td>Describing how hard the classes were in terms of assignments and piles of postings</td>
</tr>
<tr>
<td>Being relieved</td>
<td>Feeling comforted by sharing tensions with others</td>
</tr>
<tr>
<td>Selection process</td>
<td>Being selective in relationship building, such as more closely aligning myself with those who were more committed</td>
</tr>
<tr>
<td>No difference</td>
<td>Assuming no difference between online and on-campus courses</td>
</tr>
<tr>
<td>Bare face</td>
<td>Connecting faces to writings or names</td>
</tr>
<tr>
<td>Peer pressure</td>
<td>Appreciating those same people who stayed in the cohort together for their online presence and tacit encouragement</td>
</tr>
<tr>
<td>Adaptation</td>
<td>Feeling that workload became much more manageable as time went on</td>
</tr>
<tr>
<td>Similar processes</td>
<td>Assuming that instructor was learning as much as students were about the class</td>
</tr>
<tr>
<td>Learning through postings</td>
<td>Learning mainly through postings</td>
</tr>
<tr>
<td>High quality postings</td>
<td>Postings contributing to learning, such as thought-provoking postings</td>
</tr>
<tr>
<td>Heterogeneity</td>
<td>Diversity among participants in terms of prior knowledge and background</td>
</tr>
<tr>
<td>Personal situations</td>
<td>Unique situation that individual had during the cohort</td>
</tr>
<tr>
<td>Requirements</td>
<td>A minimum number of postings that individual should make per week</td>
</tr>
<tr>
<td>Interest</td>
<td>Being interested in course activities, others’ postings, i.e., learning itself</td>
</tr>
<tr>
<td>Wasting time</td>
<td>Dissatisfaction with reading piles of low quality postings</td>
</tr>
<tr>
<td>Subjectivity</td>
<td>Evaluating others</td>
</tr>
<tr>
<td>Personal touch</td>
<td>Connecting emotionally, personally</td>
</tr>
</tbody>
</table>