Abstract approved:

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Edith Gummer

This study examined a web-based undergraduate course structured around social

learning theories through the lens of social construction as a theoretical framework

and a case study research method. The purpose of the study was to investigate

students' learning experiences from a cognitively guided research framework.

Instructional strategies practiced in the course, instructional design developed, and

demonstrated students' learning outcomes were examined to help characterize

students' learning experiences.

The study proceeded from a social constructivist framework, employing a qualitative

case study approach. Data collected to support the description of students' learning

experiences included early course survey, in-depth interviews, course documents,

students' artifacts, online class interactions, email correspondences among

participants, and the researcher's journals based on online observations. The results

of the study reveal that students' learning experiences and learning outcomes were greatly affected by the instructor's belief about teaching a distance course. Her belief that students should be fully responsible for their own learning in the web-based course resulted in minimal facilitation of the class in all aspects, including moderating students' online discussions, fostering learning communities within the class, and providing elaborate, critical feedback to elicit students' cognitive processes. As a result, the engaged cognitive processes and knowledge domains students demonstrated over the term were not significantly improved. Furthermore, the course goal of establishing a collaborative, interactive, and social learning environment for distance students was not met. The results of this study contribute to the picture of the facilitation skills and moderating practices that support more fully the goal of the development of a cognitively rich learning community.

Toward the Development of Analysis of Students' Cognitive Processes
in an Online Course

by

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I understand that my dissertation will become part of the permanent collection of Oregon State University libraries. My signature below authorizes release of my dissertation to any reader upon request.

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Ruey S. Shieh, Author

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CHAPTER I. INTRODUCTION

The Need for Higher-Order Thinking Skills

In our technology-dominated world, people need to develop knowledge and skills to cope with complex issues and challenges; skills that may differ from those they learned in K-16 educational settings (MacKnight, 2000; Stallings, 2000, Yuen, 2003). In other words, people must become knowledge workers to better able to function efficiently as well as effectively in the digital century. Promoting higher-order thinking skills of university students is becoming an increasing concern in higher education (Hollingworth & McLoughlin, 2001). However, Kennedy (1991) argued that although American students performed basic skills well, they were not as competitive on the areas that required higher-order thinking and problem solving. Kennedy further asserted that educators "need teaching that challenges students more than the current methods do, that expects more of students, that demands higher-order thinking from them, that prepares them for the workplace of tomorrow" (Kennedy, 1991, p. 661). Paul (1992), the chair of The National Council for Excellence in Critical Thinking, emphasized that "critical thinking is the heart of a well-conceived educational reform and restructuring" because it is the theme of the changes in the digital century characterized by information and knowledge demands.

Although researchers and educators have long recognized the need to develop students' higher-order thinking skills, there is no consensus with respect to how to achieve the end (Resnick, 1989). Some researchers suggest that components of higher-order thinking and meaningful learning are best embedded in a "community of inquiry" composed of learners and instructors (Garrison, Anderson, & Archer,

2000, 2001; Lipman, 1991). Social constructivist theory contends that knowledge is socially situated and is constructed through reflection on one's own thoughts and experiences as well as other learners' ideas. A reflective, collaborative, knowledge-building approach established in learning communities offers a powerful model for both the design of classroom courses and online instruction (Gokhale, 1995; MacKnight, 2000). Hall (2001) suggested that the power of such approach derives from the opportunities for all to engender meaningful learning and achieve the desired learning outcomes collaboratively through mutual interaction.

The Concept of Higher-Order Thinking

Dewey is regarded the originator of the concept of higher-order thinking as a category of learning in education (Kember & Leung, 2000). Dewey used the phrase *reflective thought* to describe the state of higher-order thinking, which he contended was constituted of two elements - "(a) a state of perplexity, hesitation, doubt; and (b) an act of search or investigation directed toward bringing to light further facts which serve to corroborate or to nullify the suggested belief" (Dewey, 1933/1997, p. 9). Higher-order thinking, in Dewey's view, originates from a sense of doubt which needs a process of inquiry to resolve the doubt. Dewey (1933) further stated that the essentials of thinking are "to maintain the state of doubt and to carry on systematic and protracted inquiry" (p.13). Although Garrison (1991) asserted that "Thinking is not a concept, because of its abstractness" (p.288), some researchers have attempted to describe the essential characteristics of higher-order thinking. Paul (1992) defined higher-order thinking as "thinking about your thinking while you're thinking in order

to make your thinking better" (p.91). He explained that higher-order thinking "is not just thinking, but thinking which entails self-improvement and this improvement comes from skill in using standards by which one appropriately assesses thinking" (p.91). Lipman (1991) portrayed that "good thinking is accurate, consistent, and coherent thinking; to that one, it is ampliative, imaginative, creative thinking" (p.2). Garrison, et al. (2000) described that higher-order thinking is composed of a four-phase cycle: (1) triggering event (sense of puzzlement), (2) exploration (information exchange), (3) integration (connecting ideas), and (4) resolution (applying ideas).

A number of researchers associate higher-order cognitive process with the ability to *transfer* what was previously learned to solve new problems with an effective and meaningful approach, or of facilitating acquiring new knowledge, as opposed to *retaining* materials at later time in the same manner as it was initially attained (Anderson, Krathwohl, Airasian, Cruikshank, Mayer, Pintrich, et al., 2001; Chi, Feltovich, & Glaser, 1981; Resnick, 1989). According to Anderson, et al. (2001), knowledge transferring involves cognitive process categories, such as understand, apply, analyze, evaluate, and create, though they acknowledged that promoting retention is also one important educational goal in that the retained knowledge would serve as fundamental basis for those higher-level cognitive transferring at the later stage of learning. The nature of cognitive processing in this respect is more extensively addressed at the end of the literature review.

Early researchers in cognitive development, such as Piaget and Vygotsky, focused primarily on individual cognitive growth and development (Anderson & Garrison, 1995). Piaget suggested that individuals' cognitive growth was developed

through interacting with and adapting to the social environment, which was described as assimilation (using existing schema to a new situation), accommodation (changing existing schema to fit in the new situation), and equilibration (balance between assimilation and accommodation) (Siegler, 1998). He also suggested the impact of social interaction between peers on the individual's cognitive development (Palinscar, 1998). Through arguing and debating with peers, the individual's intellect grew by constructing some new argument; however, Piaget considered that the cognitive process solely relied on the individual's own mental construction, independent of others' social effect (Crain, 2000). Vygotsky (1978), on the other hand, contended that social interaction and cultural tools, such as speech, writing, and numbering systems, had a significant impact on individual's mental development and knowledge construction. In his view, learning is a product of social-historical development. Vygotsky (1978) further proposed the concept of zone of proximal development as a new approach to assist the individual's learning. He asserted that provision of some initial, appropriate scaffolding approach would facilitate the individual to better achieve his/her potential levels of development.

In more recent years, many researchers interested in cognitive development have also been investigating the importance of socially shared context in the learning process (Anderson & Garrison, 1995). According to Resnick (1989), this line of cognitive theory emphasizes that (1) "learning is a process of knowledge construction" (p.1), as opposed to knowledge retention; (2) learning depends upon existing knowledge to construct new knowledge; and (3) learning is highly socially situated, rather than being independent of surrounding life components. Some

researchers emphasizing this aspect of learning contend that higher-order thinking skills can be learned through direct instruction (MacKnight, 2000; Paul, 1992). Garrison (1991) asserted that successful development of critical thinking, one facet of higher-order thinking, within knowledge domains relied on the facilitation of the instructor in that it was some function that was difficult for students themselves to perform on their own. Anderson and Garrison (1995) viewed critical thinking as a process consisting of both "individual internal activities and social or external activities" (p. 187). To facilitate learners' thinking skills, Lipman (1991) described the following characteristic behaviors of the community of inquiry:

- Members question one another

- Members request, of each other, reasons for belief

- Members build upon one another's ideas

- Members deliberate amongst themselves

- Members point out possible counter examples to the hypotheses of others

- Member utilize specific criteria when making judgment

- Members cooperate in the development of rational problem-solving techniques.

(p.54)

In other words, members' higher-order thinking skills in the community of inquiry are developed through questioning, negotiating, and sharing thoughts with one another.

Paradigms of Instructional Design

The arguments about models of teaching and learning are extensive and complex. Lipman (1991) assumed that there are two sharply contrasting paradigms of educational practice: the standard paradigm of normal practice and the reflective paradigm of critical practice. In the standard paradigm, Lipman described, "education consists in the transmission of knowledge from those who know to those who don't know...; the teacher plays an authoritative role in the educational process, for only if teachers know can students learn what they know," while in the reflective paradigm, "education is the outcome of participation in a teacher-guided community of inquiry, among whose goals are the achievement of understanding and good judgment...; students are expected to be thoughtful and reflective, and increasingly reasonable and judicious" (p. 14). In short, the reflective paradigm assumes education to be interactive, inquiry, whereas the standard paradigm does not.

Many researchers believe that it is important to consider social, interactive, and cultural aspects of learning as part of knowledge sharing and building process (Hara, 2002; Mavor & Trayner, 2003; Garrison, Anderson, & Archer, 2003). Constructivism offers an alternative epistemological foundation, as opposed to the objectivist tradition (Duffy & Jonassen, 1991). There is an increasing body of research supporting the use of constructivist principles in designing instruction that will foster a community of learners. Although both objectivism and constructivism posit that there is a real world that human beings experience, constructivists argue that meaning is something that humans imposed on the world, rather than something that exists in the world, independent of human beings (Duffy & Jonassen, 1991, p. 8).

Accordant with social constructivist approach to learning, Lave and Wenger (1991) asserted that learning is socially situated with members' active participation in their routine, patterned activities. Learning, in their view, is considered "an integral and inseparable aspect of social practice" (Lave & Wenger, 1991, p.31).

The concept of social constructivist learning arose from Piagetian and Vygotskian perspectives (Palincsar, 1998), which emphasizes the impact of socially constructed knowledge on the individual's cognitive development. This concept has been increasingly propelled by educators and researchers in the educational context, and is regarded both as a philosophy and as a pedagogy (Jonassen, Howland, Moore, and Marra, 2003). In the constructivist learning environment, students are encouraged to actively engage in learning: to discuss, argue, negotiate ideas, and to collaboratively solve problems. Teachers design and provide the learning context and facilitate learning activities (Palincsar, 1998).

In distance education, the earlier approach of instructional design had been embedded with behavioral learning theories (Moore, 1993), and has been developed in prescribed instructional packages for independent study (Anderson & Garrison, 1995). Garrison (1993) contended that the behavioral-based approach, the same as the standard paradigm described above, did not seem adequate in prescribing instructional strategies that emphasized understanding, particularly not higher-order cognitive goals. A cognitive approach appears to better provide learners with explanatory feedback and allow them to better construct higher-order thinking skills (Garrison, 1993). Anderson & Garrison (1995) discovered students under social, interactive, collaborative learning environments, compared with a traditional

delivery mode, perceived a significantly greater degree toward the technology as providing opportunities for them to engage in higher-order thinking activities.

Distributed learning, a term that has been used to describe educational technology practices since the mid-1990s, is an instructional mode that goes beyond content delivery mechanisms (Granger & Bowman, 2003). According to Granger and Bowman (2003), this teaching and learning approach focuses on offering multiple sources of information, including content, experts, services, and students themselves that allows learners to access resources that best fit their needs and schedules. Distributed learning emphasizes learning experiences and resources in support of student interactions and learning independent of time and place. The instructor plays a facilitator role, whereas students are expected to assume more responsibility for their learning (Kochtanek and Hein, 2000).

Characteristics of Computer-Mediated Communication

Online teaching and learning facilitated by computer-mediated communication (CMC) is rapidly changing educational practice at all levels (Garrison, et al., 2003). Compared to traditional, oral classroom interaction, text-based communication in CMC condition appears unsuitable for delivering the dynamic interaction of the face-to-face classroom setting. Yet the computer is currently the central medium in distance education (Peters, 2003) partially because of the advanced features in the areas of transmission, storage, and display. In the digital learning environment, researchers have shown that distance education instructors require a different set of competencies to engage in effective instructional practices (Bernard, et al., 2004;

Fennema, 2003). For example, the instructor must attain technical skills demanded in administering the course; develop strategies for teaching online; and be able to deal with social, psychological aspects of issues due to the absence of visual cues in the online learning environment. However, the feature of "distance" in the distance education context also presents some potential advantages to distance education participants, particularly in written trail and asynchronicity.

Written Trail

In CMC learning setting, students have the opportunity to perform formative thought process through written formats when exchanging thoughts and ideas with the instructor and with peers. The persistent trace of the thought-process presentation and interaction, automatically archived in the computer system, allows the instructor to capture, moderate, and promote students' reflection and development of higher-level thinking skills individually as well as socially among learners (Garrison, et al., 2000, 2001; Meyer, 2005). This is a unique feature embedded in CMC tools that is not available in the traditional classroom setting. Some researchers argue that this is an important advantage that distance educators have when designing instructional environments that help students improve higher-order thinking skills (Garrison, et al., 2000, 2003). As indicated by Harmon and Jones (2000), the power of CMC instruction is in its potential of creating what cannot be achieved in the classroom condition, rather than replicating what has been done in that setting. Writing is regarded as a reasoning process because the writing activity imposes a certain extent of impact on an individual's development of higher order reasoning skills (Applebee,

1984). Applebee (1994) suggested that the explicit nature of the written language is what promotes the discipline of people's thinking.

Asynchronicity

Asynchronicity is one other feature that distinguishes distance education from traditional face-to-face learning setting. Asynchronicity allows distance delivery to better fit teaching and learning into a life schedule, freeing participants from the limitations of both time and distance. Some researchers assert that the asynchronous interaction deemphasizes the impact of people who are high in status, and provides a more uninhibited environment for the minority group (Kiesler, Siegel, & McGuire, 1984) and shy students (Lever-Duffy, 1999) to express their viewpoints. These potential benefits are found to be associated with the nature of anonymity and the individual's reduced self-awareness; greater diversity of participants (Mavor & Trayner, 2003; Carabajal, LaPointe, & Gunawardena, 2003); and greater self-management strategies because of the absence of a live instructor (White, 1995). Furthermore, the delay in responding to a question or discussion posed by the instructor or peers gives students more time for reflection and inquiry (Branon & Essex, 2001; Davidson-Shivers, Muilenburg, & Tanner, 2001; Kamin, Glichen, Hall, Quarantillo, & Merenstein, 2001). These embedded strengths, some researchers claim, are critical components in promoting students' cognitive development and are also considered indicators of deeper, more meaningful learning (Carabajal, Lapointe, & Gunawardena, 2003). For the sake of providing learners with time for reflection alone, Garrison, et al. (2000) argues that text-based communication may be more

desirable than oral communication when the educational goal is to facilitate higher-level thinking skills development.

Nevertheless, for some students, the experience of the face-to-face interaction is a crucial component of learning, and that asynchronous distance delivery can not provide (Lever-Duffy, 1999). In addition, some researchers have found that students in distance learning are more prone to procrastinate, fall behind, and may be more likely to drop out of the class (Hiltz & Wellman, 1997). It also takes longer to generate responses in the written form of communication than orally (Dietz-Uhler, 2001).

Purpose of the Research

The potential advantages of computer-mediated communication are a current and growing area of investigation. Several studies, such as Maor (2003), Angeli, Valanides, and Bonk (2003), Harmon and Jones (2000), and Gilbert and Driscoll (2002), have examined instructional frameworks used in the computer-mediated communication setting in concert with the development and application of social, constructivist learning theory. Even though researchers have increasingly engaged in examining the nature of online learning communities that are built in distance courses, few studies focus on examining the full scope of instructional components along with the alignment among these components, such as instructional design, instructional practices, and student performance as a whole, in order to systematically describe students' learning experiences and the nature of thinking skills developed under the provided learning environments. Anderson, et al. (2001)

emphasized that different types of learning objectives require different instructional approaches, such as different learning activities, different course materials, and different pedagogical strategies. They suggested that instructional components, such as objectives, learning activities, and assessment tasks, be aligned in order to better help students accomplish the desired learning outcomes.

To address the need for more research on developing thinking skills in CMC learning, this study examined students' learning experiences and development of the nature of cognitive processes in a collaborative web-based distance course structured around social learning theories through the lens of a cognitively guided research approach. In order to fully explore students' learning experiences in the course, instructional strategies, instructional design, and student performance were examined. This study intended to demonstrate the importance of alignment among instructional components when designing instruction and implementing the designed instruction, as well as illustrate a systematic approach for conducting such research in the online learning context. Four questions guided the research:

1. Do the instructional objectives of the course provide students with the opportunities to learn the domains of knowledge and intended levels of cognitive processes that the instructor targets?

2. Does the designed instruction (learning activities and assessment tasks) help students to achieve the desired learning objectives?

3. How do the perceptions of the instructor change over the course as she examines the cognitive nature of the instruction she delivers?

4. What changes for future instruction are identified that are intended to

    strengthen this course in subsequent offerings or future courses?

Significance of the Study

It is most likely that educators and teachers design and deliver educational

instruction in the way they themselves experienced educational environments.

Kennedy (1991) stated that instructional practice could be trapped "in a vicious

circle of mediocre practice modeled after mediocre practice" (p. 662). He further

asserted that unless educators find a way out of the circle, future generations of

students are not likely to be prepared for the developing technological society. The

technology-mediated learning environment provides instructors an opportunity as

well as a challenge to shift away from being a traditional lecturer or knowledge

deliverer to being a reflective practitioner. Maor (2003) contended that in becoming

a reflective practitioner, the instructor must be able to improve the quality of his/her

teaching practice by thoroughly understanding and evaluating the role he/she is

playing in teaching and learning. Only when there are reflective practitioners, will

there be reflective learners.

This study investigated a web-based course that is on the "cutting edge" of

alternative teaching and learning environments, which the researcher believed would

better prepare students to be responsible for their own learning; to reflect their own

thinking; and to know to how to work collaboratively to solve problems. This study

employed a cognitively guided, analytical framework to investigate a web-based

course based on evidence of course documents and student performance. It is hoped

that instructional components examined in the study would provide future educators and instructors some insight into designing more effective instruction and pedagogies to more effectively help students develop cognitive processing skills. It is also hoped that the research frameworks illustrated in this study would serve as an analytical research model to future researchers who conduct similar research. Only when well-aligned pedagogies and practices are established can students learn more effectively and meaningfully; only through meaningful learning can students develop knowledge and skills that the information age demands.

Definition of Terms

Alternative Teaching and Learning Paradigms: A reform teaching and learning approach emphasizing student-centered, collaborative, constructive learning, as opposed to the traditional teaching and learning approach which focuses on transmission of knowledge from the instructor to the student.

Asynchronous: Participants can share instructional resources at any place and any time.

Communities of Practice: Communities associated with three dimensions of relation: (1) mutual engagement of participant (2) the negotiation of a joint enterprise; and (3) a shared repertoire of ways of doing things (Wenger, 1998).

Computer-Mediated Communication (CMC): Refers to any form of exchange that requires the use of a computer (Dietz-Uhler & Bishop-Clark, 2001), such as the use of email, bulletin boards and newsgroups, chat systems, computer conferencing systems, course management system, and the internet.

Constructivist Learning Environment: In this learning environment, students are encouraged to actively engage in learning, to discuss, argue, negotiate ideas, and to collaboratively solve problems; teachers, on the other hand, design and provide such learning context and facilitate such learning activity (Palincsar, 1998).

Distributed Learning: An instructional model allowing instructor, students, and content to be located in different, noncentralized locations, which provides instruction and learning opportunities to learners beyond the time and space constraints of the traditional classroom (Granger & Bowman, 2003)

Higher-Order Thinking Skills: The ability to *transfer* what was previously learned to

solve new problems with an effective and meaningful approach or of facilitating

acquiring new knowledge, as opposed to *retaining* materials at later time in the

same manner as it was initially attained (Anderson, et al., 2001).

Online Learning Community: Defined as "a virtual social organization of learners

who share knowledge and experiences, exchange information, as well as

collaboratively solve problems in the pursuit of some common learning objects

and interests" (Chang, 2003).

Social Presence: Defined as "the degree of salience of the other person in the

interaction and the consequent salience of the interpersonal relationships" (Short,

Williams, and Christie, 1976). Tu & McIsaac (2002) redefined social presence as

"the degree of feeling, perception, and reaction to another intellectual entity in

the CMC environment."

Synchronous: Participants can share the instructional environment at any place, but

at the same time.

Taxonomy (in Education): Classification of educational objectives based on

cognitive domain, such as knowledge, comprehension, application, analysis,

synthesis, and evaluation (Bloom, Engelhart, Furst, Hill, & Krathwohl, 1956)

Transactional Distance: Refers to the psychological and communication gap that

exists between teachers and students in distance education (Moore, 1972).

CHAPTER II. LITERATURE REVIEW

Introduction

The conceptual framework of this literature review is conceived with the following assumptions:

1. Thinking skills can be promoted through social, collaborative interaction between the instructor and students and among peers.

2. Constructive, collaborative learning is embedded in learning communities, which promotes student-centered learning.

3. Learning communities can be fostered through instructional design and the changing role of the instructor as a facilitator.

The researcher believes that adequate instructional design using social, situated learning theories would better help to promote students' thinking skills that meet the need demanded in the information age in that it provides students with more authentic, realistic learning environments. Under these assumptions, this study first reviews the concept of learning communities which many researchers have argued would provide students with more genuine, collaborative learning environments. Several factors that many researchers have considered critical to the success of online learning are also reviewed, including interaction, social presence, autonomy and control of responsibility, and the communication medium. Next, the literature associated with instructional practices that focused on building online learning communities in support of students' learning at college-level distance courses is reviewed. Bonk, Kirkley, Hara, and Dennen (2001) addressed four action areas, originally proposed by Mason (1991) and then expanded by Ashton, Roberts, and

Teles (1999), in which four different aspects of instructional roles were proposed when designing educational instruction, including pedagogical role, social role, managerial role, and technological role. The researchers argued that these four action areas could be explored in courses that range from online support for face-to-face instruction to fully integrated web-based learning environments. Examples of each of the four roles these researchers suggested are listed Appendix 2-1. Accordingly, this study reviews the literature based on the four aspects exemplified in the study Bonk, et al. (2001) addressed. However, the foci of the review are as follows:

1. What pedagogical strategies would contribute to desired learning outcomes, particularly in improving thinking skills?

2. What social, psychological, and affective aspects of instruction would support the development of students' learning outcomes in the learning environments described above?

3. What technological features have influenced students' satisfaction and perceptions of learning outcomes in such environment?

4. What managerial issues seem to affect the development of such a learning environment?

Next, research methods employed by the reviewed studies are addressed, followed by a synthesis of findings reported in the reviewed research. Finally, four instructional frameworks and models which attempt to help educators and teachers design learning objectives in support of student's knowledge acquisition and cognitive processes are discussed.

Learning Communities

There is increasing awareness on the concept of community in education in the past few decades (Rovai, 2000). The emphasis stems from the perception that sense of community in this nation is feeble and needs reinforcement so that people in the community can work collaboratively toward the common good (Etzioni, 1993). In his book of *The Spirit of Community*, Etzioni (1993) articulated the needs of using "communitarian approach" to restore the deteriorating moral values and public order. He declared that through communitarian effort from people at all levels, including families, schools, neighborhoods, and even the entire nation, changes in shared values, social, and public order could be brought about.

Communities of Practice

Traditionally, *community* refers to geographic communities of people living in close area. Although ethnographers have a long history of studying occupational communities, the term "communities of practice" was coined by Lave and Wenger in 1991 (Hara, 2002), and was further developed by Wenger in 1998. Wenger introduced three dimensions of the relation to associate practice and community: (1) mutual engagement of participant (2) the negotiation of a joint enterprise; and (3) a shared repertoire of ways of doing things. Based on Wenger's theoretical framework of communities of practice, Hara (2002) defined communities of practice as "informal networks that support professional practitioners to develop a shared meaning and engage in knowledge building among members" (p. 339). Etzioni and Etzioni (1999) characterized community as having two attributes: (1) bonding:

relationships that reinforce one another in a group (2) a culture: individuals' commitment, common values, custom, and a shared cultural identity.

The concept of learning communities has emerged for more than two decades (Yuen, 2003). A learning community, providing functions of social reinforcement and intellectual exchange (Moller, 2000), can contribute to effective learning by catalyzing cognitive development through collaborative learning and sharing diversity of expertise, and can help individual learners achieve what they cannot on their own (Yuen, 2003). Wenger (1998) identified the importance of learning as social participation which is an emphasis on "the negotiation of meaning rather than on the mechanics of information transmission and acquisition (p.265). It is through the routine negotiation of meanings, rather than the information acquisition and transmission, that members in the community learn, and thus continue their participation and engagement (Wenger, 1998).

Alexander Meiklejohn is considered a pioneer who brought up the idea of learning communities in the classroom setting in the late 1920s (Gabelnick, MacGregor, Matthews, & Smith, 1990). His idea of learning community was first realized through the establishment of the Experimental College at the University of Wisconsin in 1927, which curriculum not only provided students with a discussion-centered pedagogy, but also required students to "develop a personal point of view, to connect the ideas in the classroom with the 'real world'" (Gabelnick et al., 1990, p.11). John Dewey built upon Meiklejohn's work. According to Gabelnick et al. (1990), Dewey's contribution to the learning community was his view and emphasis on the student-centered teaching and learning process, rather than the formation itself.

Dewey (1938) stated that the traditional school was characterized as a non-social learning environment in that interaction in the learning situation was not encouraged. Dewey argued that students should learn from the genuine world through continuous interaction with one another. In his view, *situation* and *interaction* are two inseparable conceptions, as are the two principles *continuity* and *interaction* inseparable aspects of experience from each other.

Gabelnick, et al. (1990) regarded learning communities as a special approach to curriculum reform because of "their focus on the structural features of our institutions and our curriculum as both the problem and the solution" (p. 5). They asserted that learning communities "purposefully restructure the curriculum to link together courses or course work so that students find greater coherence in what they are learning as well as increased intellectual interaction with faculty and fellow students" (p.5). Many researchers urge that it is necessary to consider social and cultural aspects of learning as a way to foster knowledge sharing and building (Hara, 2002; Mavor & Trayner, 2003; Garrison, et al., 2003). There is an increasing body of literature discussing the contribution of constructivist principles to the design of student-centered learning environments based on authentic context, such as Jonassen, et al. (2003), Palincsar (1998), and Resnick (1989). As mentioned, constructivists provide an alternative epistemological stance to interpret human beings' meaning-making of the reality; they asserted that meaning exists only when human beings perceive it, rather than existing independently of the human beings (Duffy & Jonassen, 1991).

Online Learning Communities

Independent study, or self-directed study, with static resources and one-way communication has been the main philosophy of teaching and learning in distance education (Garrison, 2003). However, with rising prevalence of the Internet and the World Wide Web resources, technological media for teaching and learning are becoming increasingly interactive, widely distributed and collaborative (Bonk, Hara, Dennen, Malikowski, & Supplee, 2000; Chang, 2003). Through the support of computer-mediated communication, advocates of online teaching and learning envision learners actively engaged in group-based interaction and knowledge-building at anytime and anywhere (Carabajal, et al., 2003).

Chang (2003) defined an online learning community as "a virtual social organization of learners who share knowledge and experiences, exchange information, as well as collaboratively solve problems in the pursuit of some common learning objects and interests" (p.28). He proposed three features to be included in a learning community: (1) spontaneous learning and active knowledge construction by individual learners; (2) idea sharing and information provision for all members of the learning community; and (3) distributed knowledge and expertise (p. 27). In distributed learning communities, knowledge is distributed among different people, resources, or tools, rather than being constructed by a particular individual. Through the accomplishment of knowledge building, resource sharing, and experience interchange, students can learn more and faster (Chang, 2003).

The change of the learning environment has also provided online educators and instructors with an opportunity as well as a challenge to make learning an interactive

and collaborative experience that is guided by a social constructivist approach. Atsusi (2002) proposed a conceptual model for designing a course which focuses on establishing constructivist, student-centered, technology-rich learning environments. Eight instructional events were included in the model for facilitating the development of knowledge building and life-long learners in such learning communities. These eight instructional events are: set learning challenge; negotiate learning goals and objectives; negotiate learning strategy; construct knowledge; negotiate performance criteria; conduct self, peer and expert assessment; monitor performance and provide feedback; and communicate results. In addition to setting learning challenge, such as acquiring some certain skills and knowledge, Atsusi (2002) suggested that learning and knowledge construction should be based on a negotiation process, such as negotiating learning goals, learning strategy, and assessment criteria. The instructor during the negotiation process, however, played more of a facilitator role, monitoring students' performance, and providing feedback as needed.

Bonk and Cunningham (1998) proposed theoretical perspectives on collaborative technology embedded in "learner-centered, constructivist, and sociocultural" instructional components (p. 25). They viewed:

- learning as information processing – a cognitive skills approach;

- learning as experiential growth and pattern recognition – a cognitive constructivist approach; and

- learning as a sociocultural dialogic activity – a social constructivist or sociocultural approach.

Interaction

Traditionally, interaction in the educational context refers to face-to-face, oral dialogue between the teacher and students. This concept has been expanded to include at-a-distance, written format of discussions taking place with the assistance of some technology-mediated media, such as audio teleconferencing, computer-mediated conferencing, discussion board, and interactive computer programs. Wagner (1994) defined interaction in the distance education setting as "reciprocal events that require at least two objects and two actions. Interactions occur when these objects and events mutually influence one another" (p. 8). The object, in his view, is not only limited to human objects, such as the teacher and students, but also the medium employed. Wagner (1994) contended interaction is influenced by various factors, including learning theory constructs, instructional theory constructs, and instructional design. Because face-to-face and other modes of synchronous interaction are usually absent in distance learning environment, the quality of asynchronous dialogues becomes a crucial factor deciding the degree of sense of community that students under such environment perceive (Rovai, 2000). Without appropriate interactions with other objects in the asynchronous learning modes, not only will learners feel isolated and unsupported, but, most importantly, they will also be deprived of thought-provoking learning opportunities prompted by peers and experts. Anderson and Garrison (1995) contended that in order to support development of higher-order thinking skills, educators and instructors must deliberately build in opportunities and reasons to their instructional activities for sustained interaction.

Moore (1989) described three levels of interaction important to distance education practices: learner-content, learner-learner, and learner-instructor. In the past, the one-way learner-content interaction appeared to be the most common instructional design embedded in distance courses. Interactions between students, among students, and between the teacher and students are some areas that distance education needs to reinforce. These types of interaction are considered important principles as well as indictors of the quality of undergraduate education (Chickering & Gamson, 1987); in which quality may depend upon the instructional learning activities developed for the learning context (Anderson, 2003).

In his theory of transactional distance, Moore (1972, 1991) identified three conceptual elements which he asserted determines the extent of transactional distance in distance instruction: dialogue, structure, and learner autonomy. He emphasized that transactional distance is pedagogical, rather than geographical, and needs to be overcome by learners, instructors, and institutions if effective learning is to take place. Moore (1991) associated "dialogue" with communication media and emphasized that real two-way interaction be enhanced. According to his theory, high dialogue between teacher and learner and among learners tends to reduce the psychological, transactional distance. "Structure" in Moore's theory refers to course design, the way the instruction is structured. Highly structured instruction is inclined to increase the transactional distance (Moore, 1991). The third element, learner autonomy, is discussed in the following *Autonomy and Control of Responsibility* section. Zhang's (2003) study, investigating college student's perceptions toward transactional distance in web-based learning environments, indicated that the

strongest factor that affected students' sense of transactional distance and engagement with learning in such environments was the distance between and among students, followed by the transactional distance between student and teacher, and then transactional distance between student and content.

Autonomy and Control of Responsibility

Autonomy is one other major theme in distance learning theory and practice (Garrison, et al., 2003). Autonomy is personal responsibility affiliated with individual independence and self-directedness. Moore (1993) described learner autonomy, one of the elements in his theory of transactional distance, as the extent to which the learner should be involved in the teaching-learning relationship. He claimed it is the learner rather than the teacher who is in charge of the learning, such as deciding learning objectives, learning experiences and progress, and effectiveness of the learning. Moore (1993) hypothesized that the greater the transactional distance, the greater responsibility is laid upon the learner.

Garrison (1997, 2003) identified three components to further explore the concept of self-directed learning: self-management, self-monitoring, and motivation. He stated that these components are best viewed using the aspect of control and responsibility. *Self-management* involves the learner's responsibility for achieving desired learning outcomes and external control issues, such as balancing personal pursuit and educational norms, which Garrison (2003) argued could be ensured through a collaborative process of sharing control between teacher and learner. *Self-monitoring* is associated with cognitive responsibility for acquiring valid knowledge,

which responsibility Garrison (2003) asserted lies on both the learner and teacher. *Motivation* is a presentation of commitment and persistence to a learning goal and is also an essential momentum to self-directed learning, which Garrison (2003) considered is the learner's control and responsibility. Although most distance educators tend to place as much responsibility and control as possible on the learner, Garrison (2003) cautioned that adequate instruction and support are necessary to help the learner accomplish intended educational objectives.

White (1995) found that distance students, compared to traditional classroom students, tended to be better able to use metacognitive approaches, particularly a self-management approach, to facilitate their learning. The metacognitive approaches the researcher referred to are associated with student control over their own learning including knowing how to plan, examine, and assess their learning. White (1995) also reported that the increased metacognitive ability that distance students demonstrated was in relation to the learning environment they had been exposed to, in which routine guidance and assistance were not provided as was in the classroom setting. However, contrary to the above assertions, Chen's (1997) study examining students' perception toward transactional distance in a video conferencing learning environment discovered that none of the dimensions of learner-autonomy (an eight-item survey subscale asking the extent to which students were able to learn independently) had a direct or an indirect impact on students' learning outcomes, unsupportive of Moore' hypothesis of learner autonomy in his transactional distance theory.

Social Presence

Research conducted in face-to-face classroom settings reveals that social presence plays a potentially important role in improving instructional effectiveness. Short, Williams, and Christie (1976) defined social presence as the "degree of salience of the other person in the interaction and the consequent salience of the interpersonal relationships" (p.65). Many researchers associate social presence with two concepts: immediacy and intimacy (Gunawardena, 1995; Short, et al., 1976; Tu, 2001). The degree of *intimacy* depends on physical cues, such as physical distance between the communicators, eye contact, hand gesture, smiling, outfit, and topics of conversation, whereas *immediacy* refers to the perception of psychological distance between the communicators in the sequence of interaction. Lack of social presence in the classroom teaching will have negative impact on learners, and consequently lower affective learning (Christophel, 1990).

In the distance learning setting, the factor of intimacy is absent. Therefore, the degree of social presence mainly relies on the degree of immediacy. Distance researchers argue that social presence involves both the medium as well as participants engaged in the medium (Short, et al., 1976; Gunawardena, 1995). In computer-mediated communication, particularly those using asynchronous approaches, the delayed responses, as opposed to immediate feedback, can diminish the user's sense of social presence because of the low interactivity. However, researchers contend that perception and satisfaction of social presence can be fostered through design of instruction, facilitator roles, and learners' participation and engagement in the learning activities (Gunawardena & Zittle, 1995, 1997).

The Communication Medium

As mentioned, because of the rapid evolution of the technology, the role the communication medium plays in distance education has gained many researchers' attention. Peter (2003) claimed that the media function as "carrier media," which deliver what has been missing in traditional classroom settings (p.87). For example, users may experience different teaching and learning paradigms through such media, including the personal computer, the World Wide Web, CD-ROMs and databases, audio- and video-conferences, and computer-mediated cooperative learning (Peter, 2003).

Despite of the advanced features of the new media, the effect of mediated learner-medium interaction has been debatable. The classic debate between Clark (1994) and Kozma (1994) on the extent to which media influence learning highlighted this argument. In addressing Clark's (1983) position asserting that the medium did not affect learning in any event, Kozma (1994) argued that Clark's assessment did not take into account variables involved in more recently developed media, particularly the highly-interactive feature. He explained that the interactive feature embedded in the newer media, allowing interaction to take place between the teacher and students, among students, and even between students and the media, is greatly associated with learning results, especially when structured within a constructivist framework. Clark (1994)'s opposition to Kozma's (1994) argumentation is best described in his responding article title: "Media will never influence learning." He insisted that it is the instructional design that is the key factor, not the medium, deciding the learning effect. He illustrated his viewpoint by stating

that the truck (the medium) can only deliver groceries (instruction), not the nutrition (learning). In other words, the medium is merely a carrier of instruction and of method. He emphasized that, if adequately designed, any medium could deliver high-quality instruction. The findings in Bernard et al.'s (2004) meta-analysis study, in which the researchers compared distance education to classroom instruction using distance education literature between 1985 and 2002, resulted in favor of Clark's (1994) assertion; instructional methodology, not the medium, is the major component that moderates the influence of distance education on student learning.

Pedagogical Strategies to Promote Thinking Skills

An abundance of literature investigates pedagogical strategies structured around student-centered, constructivist, collaborative learning theories that aim at facilitating students' learning experiences. Because the emphasis of this study was to examine the nature of students' learning experiences and thinking skills developed in the online learning setting, literature that is associated with promoting students' cognitive development is addressed first, followed by research on general teaching strategies practiced.

Cognitive Strategies

Cognitive style refers to the approach the learners employ to process information to construct their knowledge (Hannafin, Oliver, Hill, Glazer, and Sharma (2003). White (1995) described that cognitive strategies are in reference to

individual learning tasks, and how individuals manipulated and acquired the knowledge of the tasks to be learned.

Maor (2003) investigated the roles that the instructor played in facilitating students' thinking skills in a text-based asynchronous course, in which 12 science and math teachers were involved in undertaking a postgraduate degree. The study was conducted qualitatively using a content analysis approach to analyze students' artifacts. The instructor in the study adopted the social constructivist approach to design her course in hope of fostering a social learning environment among participants. The cognitive strategies the instructor used to promote students' reflective thinking were to encourage students to first challenge their own ideas and beliefs based on theoretical readings and then to reflect on and respond to others' discussions and reflections. Each week a different student took on the role of discussion leader and facilitated the weekly discussion, including proposing the discussion topic, raising questions, and providing a summary of the discourse. However, the researcher revealed that students' contributions were not as profoundly reflective as expected, though students themselves in the evaluations reported positive attitudes toward the challenging ideas of engaging in deeper reflection of personal position and thought. Maor (2003) emphasized a scaffolding approach was necessary assisting students to adjust to learning in a student-centered, constructivist online learning environment, such as facilitating students' engagement in collaborative learning and reflective thinking.

Gilbert and Driscoll (2002) investigated how effectively the instructional conditions designed and practiced in a web-based graduate course contributed to the

development of a collaborative knowledge-building community. *Knowledge building*
in the study was defined as "the construction of new information stored in the
communal database associated with the formulation of questions to help students
notice what information to add to the database" (p. 60). The researchers
hypothesized that incorporating certain constructivist learning principles in designing
a web-based course could effectively foster a learning community, and thus help to
promote students' knowledge building. Accordingly, the course, dealing with
alternate views of teaching and learning, was designed with four instructional
conditions: (1) setting a common community goal - creating and developing a charter
school - to promote students' participation and collaboration; (2) employing
cooperative groups with three or four students in each group to increase social
interaction and multiple perspectives; (3) adopting personally selected course
readings and group decision-making to encourage self-directed learning; and (4)
using asynchronous written communication tools to facilitate communication and
archive students' artifacts. The researchers noted that requirement of reading and
identifying key concepts of the readings were designed to serve as a scaffold to
facilitate students' higher-order thinking development. Among the 20 master's and
doctoral students registered in the course, the researchers purposefully selected six
students as the main source for their case study analysis, whom they claimed
represented various levels of students' performances and attitudes toward the course.
Based on the findings, the researchers asserted that the instructional conditions in
this course facilitated students' knowledge building and that the self-directed
learning approach promoted students' acquisition of key concepts. However, the

researchers acknowledged that students' performances revealed that collaborative-based knowledge building was limited to the group level rather than at the community level of the entire class as intended.

Harmon & Jones (2000) investigated distance courses that were designed based on both traditional and constructivist approaches, focusing on technical prowess and affective perspectives, as well as benefits and barriers to fostering a learning community. A total of 91 students enrolled in a graduate-level, web-based course offered by two universities concurrently were studied over the course of three consecutive semesters. The two researchers worked as participant observers, one instructor in each site. Students registered in the courses met synchronously (via chatroom), asynchronously (via bulletin board, email, and tutorial-type lessons), and two face-to-face meetings. In addition to reading and studying the lesson and participating in the discussion online, students were assigned to three-person teams to research and develop a mini-lesson based on the topic each team selected, and every team was in charge of a discussion of their teamwork. The cognitive strategy used by the instructors was that every student in the class was expected to be a critic of every web-based lesson, so that students had opportunities for both providing and accepting critiques. In addition to online communication, students also had opportunities to discuss, reflect, and share their progress and learning experience during the face-to-face meetings. Based on the data collected from mini lessons, interview, and online discussions, the researchers reported that to most students the constructivist type of learning was new, and thus they had trouble adjusting to the course, such as taking responsibility for their own learning and keeping pace with

overwhelming statements generated online. However, the researchers did not articulate the quality of students' learning outcomes. Therefore, the effectiveness of the instructors' cognitive strategies was not clear.

Angeli, Valanides, and Bonk (2003) investigated a psychology course delivered through a mix of the traditional classroom teaching and an online conferencing approach. These researchers focused on examining to what extent the constructivist-based online learning environment and its case-based instruction promoted students' communication outside the classroom and facilitated the development of students' thinking. The class of 146 undergraduate pre-service teachers started with regular classroom meetings, but halfway through, an asynchronous "Conferencing on the Web" (COW) system was employed for six weeks during the field experience lab session which partially replaced classroom discussions. Students were required to post a teaching case based on the observation conducted in the field, provide solutions to the case, post messages regarding other cases generated by classmates, and summarize the discussion produced for a classmate's case. The main cognitive strategy administered in this course was mentoring. There were total of nine mentors involved in the session, including the main instructor. All were trained and were given 12 mentoring techniques forms and examples, broken down into low-level mentoring, high-level mentoring, and management, to moderate the COW discussions. The researchers employed quantifying discourse contents to conduct the data analysis. Of the selected 35 discussion threads, the researchers reported that 87.5% of discussions were from students; the remaining from the nine mentors. The researchers further reported that

only seven percent of the replies were justified opinions, as opposed to social,

personal opinions. As to mentors' messages, only one percent employed one form of

high-level mentoring, that is, cognitive task structuring. The authors concluded that

the online case-based instruction did not encourage extensive communication from

students; among the observed discourse, students did not engage in higher-level

reasoning reflection. Rather, they mainly used the online venue to exchange personal

experience. Nevertheless, the authors argued that this required course was one of the

pre-service teachers' first teacher education courses, hence students' being able to

discuss and exchange success and pitfalls of teaching practiced by experienced

teachers and comment on such teaching approaches might be a sign of a first level of

higher-order thinking.

Teaching Strategies

Many studies examined teaching approaches employed to foster student-

centered learning communities in support of promoting students' thinking skills.

Transformation of the instructor's role from lecturer to facilitator seems the basic

step to that end. In addition to facilitator role, other strategies implemented in the

online learning environment were associated with requiring frequent interaction

among students, promoting students' sense of responsibility, designing collaborative-

based instruction, and developing an assessment plan.

Facilitator Role. Kochtanek and Hein (2000) described an alternate teaching

and learning model established in web-based learning environments in support of

students' learning and construction of knowledge among students. The first author of the study was the instructor of the course examined, and reportedly had 20 years of teaching experience. He described his teaching approach as a traditional lecturing style for many years, but he decided to shift to more dynamic, distributed-learning paradigm, in which student-centered, collaborative, learning community building were among the pedagogical emphases. In the study, a total of 60 students were enrolled in the online course, "Library Information Systems", over two semesters. Students were introduced to course content and interaction through asynchronous weekly threaded discussions. Guest educators were invited to participate in the week-long discussions through a discussion board. Students were also presented with project-based learning opportunities. Approximately five projects were accomplished each semester, and five to seven students were assigned in each project. The researchers claimed that student-centered learning would only take place when the instructor's role was changed from a knowledge transmitter to a knowledge facilitator. Only under such transformation would students be responsible for their own learning and be the owners of their knowledge. The researchers reminded that the instructor should avoid being a "sage on the stage" (p. 287). Examples of the responsibilities students were expected to assume included planning their own learning goals, setting their learning pace, and developing methodology to achieve learning goals. However, the researchers revealed several barriers in delivering a web-based course using the described pedagogies; for instance, the newness of the notions associated with student-centered learning, constraints of asynchronous communication, and time commitment.

Maor (2003) reported that in order to adequately manage the facilitation role, the instructor must constrain his or her participation in students' discussions to only once or twice a week, and the participation should be limited to mainly summarizing students' postings. Maor (2003), however, noted that it was necessary for the instructor to intervene if students' interaction was slow or non-existent, especially in the beginning of the class. Lack of well-designed mentoring strategies was one of the main reasons to which Angeli, et al. (2003) attributed the failure of online laboratory session. They suggested that training be provided to inexperienced instructors and class mentors to improve their facilitating skills.

Interaction and Feedback. Swan, Shea, Fredericksen, Pickett, & Pelz (2000) addressed the importance of interaction between the instructor and students and among students in the distance learning environment in their large-scale study. Swan, et al. investigated factors that affected the success of online courses offered by the State University of New York (SUNY) system, using asynchronous online delivery. The researchers administered an online survey to approximately 3,800 students at the end of the semester, which consisted of information concerning students' satisfaction, perceived learning, and activity in the courses they were taking. The authors then selected courses from those represented by the returned surveys (1,406), in which five or more students enrolled and where there was a 40 percent or greater survey return rate as the source for their analysis of the courses. The researchers examined each of the 73 selected courses, and rated their content based on 22 predetermined variables using Likert-type scaling. Variables included class size, number of modules,

consistency, frequency of instructor interaction, student-student interaction, required

participation in discussion, and average length of discussion responses, etc.

Consistency was described as whether course modules had similar structure;

interaction was measured by frequency of communication in day intervals. Based on

student perceptions data (n=1,406), the relationships between course design variables

and students' satisfaction, and perceived learning and interactions among

participants were analyzed. The authors found that the following course features had

positive relationships with the student perceptions measures:

- the percentage of the course grade that was based on discussion

- the consistency among course modules

- actual interactions in courses

- required participation in discussions

- the average length of discussion responses

- the frequency of instructor feedback.

The authors concluded that three factors significantly influenced the success of

online courses: consistency in instructional design, interaction with course

instructors, and communication through active discussion. These factors, the authors

contended, were not only important to fostering knowledge building communities in

asynchronous online learning environments, but also the implication was supported

by social constructivist frameworks as well as supporting social constructivist

concepts. Although this was a large-scale study, the findings reported by the

researchers need to be explained with caution due to the low return rate of the survey.

The importance of interaction is also emphasized in the case study conducted by Hill, Raven, and Han (2002). The study qualitatively examined the two-fold aspects of instructional design: what the educators and instructors could do to better help students construct effective web-based learning environment, and what students could do to assist themselves in creating such environments. Two graduate-level online courses were involved in the study; one was titled "Information Technology Infrastructures" with 21 participants and the other "Instructional Design" with 22 participants. The researchers claimed "a combination of positivistic and interpretivist techniques" were used in collecting data (p.386); data were triangulated based on focus groups, surveys, and online discussions. The researchers reported their findings first based on two different categories: infrastructure strategies and interaction strategies, further broken down into two other categories, instructor strategies and student strategies. Infrastructure strategies were used during course design, while interaction strategies were implemented during the class. Among the infrastructure strategies, the researchers found that sufficient opportunities for interaction between the instructor and students and amongst students was one of the best practices promoting web-based communities building. The instructor was suggested to provide students with enough opportunities for interaction; students in the meanwhile ought to frequently check their online messages and provide encouragement and support to peers. Other strategies the researchers discovered are reported in later associated sections, such as access to multiple communication media, updating class announcements, setting up personal web pages (infrastructure strategies), scanning rather than scrutinizing materials posted, and accomplishing work via team effort

(interaction strategies). The researchers concluded that effective practices, particularly emphasis on a stronger connection and interaction in the established learning communities, would contribute to the viability of web-based learning environments in the higher education.

Wang, et al. (2003) examined the nature of online learning communities built among adult learners in a graduate-level course, focusing particularly on communication patterns between genders. Participants included 12 female and 9 male students with an average age of 37 years; four of the 21 participants were international students. The researchers selected two of the students' chat sessions occurring concurrently to investigate students' communication pattern quantitatively and qualitatively. They used attendance and content of communication as indicators of students' participation. The level of participation was assessed by examining participants' interaction styles, which were coded into 11 types: information (e.g. exchanging resources or clarifying related issues), opinion (e.g. reflecting personal views), suggestion (e.g. offering a suggestion to solve a problem), questioning-answering (e.g. asking or providing answers), negotiation (e.g. attempts to reach consensus), argumentation (e.g. attempts to pose one's opinions on others), agreement and disagreement (e.g. asserting viewpoints with a topic), motive (e.g. when agreeing with a suggestion), metacommunication (e.g. reflecting on communication or teamwork), and social interactions (non-task related discourse). The content of communication was also measured by the frequency of message exchanges. The researchers reported that there was no statistically significant difference between gender and total number of messages exchanged. Both genders

seemed actively engaging in participation; however, they discoursed differently. For example, male students were prone to discuss information whereas female students tended to express opinions and ask/answer question. Sixty-nine percent of the social interactions took place among female students. Nevertheless, there were highly significant differences in the overall discourse styles indicated by the 11 categories, meaning some communication styles were more frequently employed by participants than some others, regardless of the gender. There were significantly higher amounts of social interaction, information exchange and offering suggestions. In contrast, there were few negotiations and no argumentation among the participants. The researchers, however, cautioned about the limited generalizability of the study due to the small number of samples and the specific research setting.

The strategy of encouraging frequent interaction and feedback among students was also reported by several other researchers. Maor (2003) stated that the instructor in the study required students to respond at least once a week to their reading assignment and to engage in discourse related to course topics with classmates. In the study conducted by Angeli, et al. (2003), students were asked to post messages to at least four cases written by peers, and summarize the discussion generated for one peer's case.

Autonomy and Control of Responsibility. The learner's autonomy and control of responsibility have played an important role in the success of distance courses. In order to assist students to gain a sense of ownership of the class, Gilbert and Driscoll (2002) reported that the instructor set a collective goal, a shared vision, to motivate

students' participation in and contribution to the group and community based project. The researchers also reported that self-directed learning appeared limited to those students who engaged themselves at a community level of communication and felt themselves being part of a larger group. In addition, they indicated that those who gained control of their study early in the class demonstrated a greater sense of the community and the importance of their individual efforts, and had greater satisfaction with their learning experience. The opposite results were seen in those who failed to work consistently throughout the class. Maor (2003) asserted that creating a discussion leader role for students to alternatively take charge in some instructional activities enabled them to develop leadership responsibilities and sense of ownership of the class. Similarly, Kochtanek and Hein (2000) contended that allowing students to decide their own learning direction and objectives specifically through the use of collaborative-based learning would promote their sense of ownership of the course and of their learning experience.

Moller, Harvey, Downs, and Godshalk (2000) also reported that a team member's sense of responsibility was the decisive factor in students' learning outcomes and the creation of effective learning communities. In the study, the authors conducted a case study examining the relationship between community building and learning outcomes in an asynchronous computer-mediated communication learning environment. Twelve students were arbitrarily assigned to one of the three four-member teams, and were required to solve four case studies. In order to determine what caused the differences among students' learning outcomes that required collaborative effort, the authors related students' case-study scores to

four factors that they considered would contribute to the results: (1) amount of comments made among team members, (2) frequency of community-creating types of comments, (3) extent of perceived responsibility and isolation toward team members, and (4) the approaches which each team adopted to build community. The numbers of comments each team made were counted to determine patterns of communication within the team. The comments were grouped into three categories: (a) practical - issues of team coordination, such as time, responsibilities; (b) social - perception of group identity within teamwork context, such as affirmation of thoughts, supporting others' opinions; and (c) interpersonal - affection outside teamwork context, such as emotion, friendship. The researchers employed a combination of quantitative and qualitative research methods to conduct the analysis. The data were reportedly further triangulated with interviews and student journals. Based on the findings, the researchers reported that the team which scored highest overall also (1) made the greatest number of comments; (2) made the greatest number of community-building comments; and (3) began to commit to the teamwork earlier than the other two teams. Supported by qualitative data, the researchers claimed that feeling connected in a computer-mediated environment was caused by team members' sense of responsibility; differences in connectedness with team members contributed to the difference in performance.

Harmon and Jones (2000) revealed that the notion of taking responsibility for the distance learning context established under a constructivist pedagogy appeared difficult for many students. Some students reportedly felt thrilled by being forced to take responsibility for their own studying once the course started. Consistent with

those studies conducted by Gilbert & Driscoll (2002) and Moller et al. (2000), Harmon and Jones (2000) also found that early control of the class allowed students with more time to adjust to the new type of learning paradigm, which also contributed to the formation of the learning community.

Collaborative Learning. Designing a group project or assigning students with a team project task was one other strategy employed to help foster the online learning community. In the study conducted by Maor (2003), students were required to accomplish a team project; each member in the team must simulate and assume a role that was real in the authentic society. In the study conducted by Gilbert and Driscoll (2002), each of the six groups was responsible for negotiating and assuming a team role in the course project designed to be accomplished through collaborative effort not only of the group, but also of the whole class as a community. Nevertheless, the researchers reported that even though some students appeared to involve themselves in group work, they were mainly concerned with their own learning, rather than that of the community. Wang, et al. (2003) also reported that the instructor in the study required students to engage in teamwork and assume an authentic role from a hypothesized company, which the researcher claimed provided students with rich educational resources and learning experiences. Hill, et al. (2002) found that use of team effort to accomplish required tasks in the class was one of the most effective strategies that promoted the establishment of online learning communities. Kochtanek and Hein (2000) reported that the instructor in the study employed project-based learning approach to facilitate students learning. Students

were assigned in groups to complete self-designed projects which were posted on website and were available to the public.

Assessment Plan

In the study conducted by Maor (2003), students' contributions and discussions accounted for 40% of the assessment of the course, in which students were evaluated for the quality of their participation and their role as a discussion leader. The instructor in the study attempted to promote the discussion activity as the hub of the instructional unit by implementing such assessment plan. Angeli, et al. (2003), on the other hand, attributed the failure of students' participation and engagement in class activities to lack of an effective assessment strategy. They suggested that assessment strategies must include students' frequency of participation as well as quality of their contribution in order to keep students participating and continue participating through the whole course.

The research findings with regard to instructional strategies implemented in support of building online learning communities and promoting students' thinking skills are summarized in Table 2-1.

Table 2-1. Summary of pedagogical strategies implemented

Pedagogical Strategies	Sources of Study
Cognitive Strategies	
Scaffolding	Gilbert & Driscoll (2002); Maor (2003)
Challenge one's own ideas first, and then reflect on and respond to others	Maor (2003)
Select, reflect, and discuss one's own course readings; define and extract key concepts from the readings	Gilbert & Driscoll (2002)
Critique every web-based lesson, and provide and accept constructive comments	Harmon & Jones (2000)
Provoke students' thinking skills through mentoring during online interaction	Angeli, et al. (2003)
Teaching Strategies	
Facilitator role	Kochtanek & Hein (2000); Maor (2003); Angeli, et al. (2003); Gunawardena & Zittle (1997);
Interaction and feedback	Angeli, et al. (2003); Hill, et al. (2002); Maor (2003); Swan, et al. (2000); Wang, et al. (2003)
Autonomy and control of responsibility	
- set a collective goal	Gilbert & Driscoll (2002)
- leadership role of discussion	Maor (2003)
- decide the direction and pace of learning	Kochtanek & Hein (2000)
- Promote a sense of ownership of the class	Harmon & Jones (2000); Kochtanek & Hein (2000); Moller, et al.(2001)
Collaborative learning	Gilbert & Driscoll (2002); Hill, et al., (2002); Kochtanek & Hein (2000); Maor (2003); Wang, et, al. (2003)
Assessment plan	Angeli, et al. (2003); Maor (2003)

Social Factors in Support of Building Online Learning Communities

Studying computer-mediated communication from a socio-psychological

perspective has been emphasized by recent communication research (Gunawardena,

1995; Kiesler, Siegel, & McGuire, 1984). Social, affective aspects of factors are

important when establishing a community of learners that aims at promoting

students' thinking skills. An abundance of factors are deemed crucial in support of

the creation of such communities, such as warm-up activities, social presence, and

threshold experience.

Warm-up Activities

Some instructors employed a warm-up strategy for the purpose of increasing

students' connectedness and subsequent class participation. Wegerif's (1998) study

revealed that the "familiarization" stage at the beginning of the class was necessary

for students to get familiar with peers and with the technology required to participate

in class activities more effectively. Creating student profiles on the web site was a

similar strategy some instructors used to increase students' familiarity with one

another. Wang, et al. (2003) reported that establishment of student profiles helped

build online communities because students' personal, social information provided on

the profile page, such as lifestyles, hobbies, and expectations to the class, appeared to

function as "ice-breaker" in the discussion activity in the first few weeks'

discussions. Hill, et al. (2002) also reported that the use of personal web pages for

each student could effectively promote the online community building.

Social Presence

Gunawardena and Zittle (1997) investigated to what extent social presence was a predictor of learner satisfaction in a computer-mediated conference environment. The researchers described the conference forum as designed with a learner-centered collaborative learning framework. They used the concept of social presence to measure social, psychological aspect of the CMC environment. They associated social presence construct with the notions of intimacy and immediacy. In the study, fifty graduate students from five universities, enrolled in the Fall 1993 inter-university virtual conference, were involved. The conference provided students with a CMC forum to engage in learning activities, including sharing, discussing research, and experiencing distance learning by using CMC themselves. The demographic data revealed that the average age of the participants was 40 years. Forty four percent of participants indicated they were comfortable with the CMC technology, while 42% indicated that they were not. The researchers employed bi-polar scales to construct validity with the social presence measure, such as personal/impersonal, immediate/non-immediate, interactive/non-interactive, sensitive/insensitive, social/unsociable, and colorful/colorless. They also developed 53 five-point Likert-scale items to assess participant's reaction to CMC and potential impacts on CMC satisfaction. Nine variables were measured in the questionnaire: social presence, participation, attitude toward CMC, barriers to participation, confidence in mastering CMC, perception of having equal opportunity to participate, adequate training, technical skills and experience, and overall satisfaction.

Based on students' self-report survey, the researchers reported that three variables contributed to more than 70% of the explained variance: (1) social presence, which alone accounted for approximately 60% of the variance, (2) equal participation (6.5%), and (3) technical skills (4.3%). The researchers concluded that social presence was a strong predictor of satisfaction in a text-based computer conference. The researchers asserted that social, relational side of CMC was a crucial component that supported learners' overall satisfaction with the learning environment, particularly when nonverbal cues were not available under such environment. They also argued that degree of social presence could be cultured and was greatly depended upon factors, such as instructional design, facilitator's role, and collaborative effort among online peers.

In addition to examining social presence, Tu and McIsaac (2002) further investigated the relationship of social presence and interaction in online courses. Fifty-one students registered in a graduate level course participated in the study. Data were collected from two different approaches: quantitative data using ethnographic method, and quantitative data using questionnaire survey. They hypothesized that through moderation, social context (e.g. task types, privacy, topics, and social relationships), online communication (e.g. typing, reading, and writing attributes), and interactivity (e.g. user engagement and communication styles) could be reinforced, which would in turn enhance interaction of online participants in CMC classes.

The researchers reported five factors - social context, online communication, interactivity, system privacy (e.g. types of CMC), and feeling of privacy (e.g. access

and location) predicted 76.74% of the variance. They reported students' perception toward social presence and privacy on CMC was high; however, correlation between the two factors was not significant. In addition, the correlation between mean social presence scaling and frequency of messages exchanged was not significant.

The researchers asserted that results of qualitative data analysis revealed that there were more variables associated with the degree of social presence than were described by some earlier researchers. Three dimensions of social presence were reported as important components in establishing online learning communities: social context (e.g. familiarity with recipients, psychological attitude toward technology), online communication (e.g. the attributes, application, and perception of the language employed), and interactivity (e.g. timely response and communication styles). Findings associated with CMC technologies were elaborated in the *Technological Aspect* section, such as the relationship between CMC tools and privacy. The researchers concluded that social presence theory appeared more comprehensive than previous studies indicated, and suggested that social presence be redefined as "the degree of sense, perception, and reaction to another intellectual object in the CMC environment" (p. 146).

Similar to above two studies, Rovai (2002) conducted a quasi-experimental research examining the degree of students' perception of classroom community. Fourteen undergraduate and graduate courses offered in two universities were involved in the study. Half of the 14 courses were delivered in a traditional face-to-face (FTF) learning environment, while another half was delivered via an asynchronous learning network (ALN). Three hundred and twenty-six students (79%)

of the total 413 students enrolled in these 16-week courses volunteered to participate in the study. Two hundred and seventy four students (82%) were enrolled in the seven traditional FFT courses, whereas fifty two students (18%) were registered in the seven ALN courses. Fourteen instructors involved in the study, one in each course, were randomly selected from a pool of instructors and who subsequently volunteered to participate in the study. The researcher developed an instrument, the Sense of Classroom Community Index (SCCI), to measure classroom community. The instrument consisted of 40 items, 10 items in each of the four subscales: spirit (e.g. I feel connected/isolated to others), trust (e.g. I feel safe/uncertain about others in this course), interaction (e.g. I feel encouraged to ask questions; I feel discussions are one-way), and learning (I feel the course provides valuable skills or does not meet my educational needs). Reliability and validity of the instrument was reportedly pre-tested based on a sample of 511 students enrolled in a variety of traditional and distance courses. The researcher claimed high face validity, high content and construct validities of the instrument. Data gathered included a self-report questionnaire administered near the end of the course, discussion board messages, and overall course statistical data tallied by the computer system.

The researcher reported that students enrolled in online courses expressed slightly higher level, though not significantly, of classroom community and variability than those in FTF courses. The researcher stated when the two online courses with the lowest numbers of students, five and seven respectively, were removed from the analysis, the result of sense of classroom community and variability found in ALN courses became significantly higher than those of the

traditional courses. The researcher reported none of the ALN courses were significantly different from each other or from any of the traditional courses. The researcher also reported that there was a moderate positive relationship between classroom community and number of messages posted by students ($r=.42$). The ALN courses with the lowest classroom community also had the lowest number of messages (5 in total) posted on the discussion board. When analyzing the 40-item survey data, the researcher reported that ten of the SCCI items accounted for 30% of the variance between groups, with each type of the courses scored higher in five of the ten items. The researcher concluded that students registered in online learning courses reported equivalent or higher sense of classroom community than those typically obtained in traditional classroom setting. The researcher further contended that students' feeling of connectedness or isolation and perceptions toward a learning community tended to be associated with individual course design and pedagogy, rather than the learning medium itself.

Threshold Experience

In building communities through situated practices, theorists assert that shifting participants from "legitimate peripheral participation" to "central participation" is an effective approach to enhance participants' engagement level and contribution (Lave & Wenger, 1991; p. 35). How this transformation takes place is revealed in the study conducted by Wegerif (1998). In the study, the researcher used the term "threshold experience" to describe the participants' experience in this respect. Wegerif (1998) qualitatively examined how social factors influenced students learning in an

asynchronous CMC learning environment. The researcher reportedly adopted

ethnographic methodology to investigate a three-month online course, using

collaborative, situated learning strategies. The online course, titled Teaching and

Learning Online, was offered by The Open University. There were 21 students

registered in the course; most were based in the UK with one in Italy and another in

Canada. The researcher participated in the course as an associate tutor. The study

was conducted using ethnographic method, in which in-depth telephone interviews

with students and tutors, e-mail messages, online evaluation of the course submitted

by students, and online course observations were gathered.

The researcher reported that online collaborative learning was a new

experience to most of the students, and asserted that individual success or failure

depended mostly upon the extent to which students were able to cross a threshold

from feeling like an outsider to feeling like an insider. One indicator showing

whether a student had crossed the threshold into full engagement in the course was

the number of messages posted by the student. Students who felt more central in the

learning community tended to participate more in discussions than those who did not.

The author revealed that, according to students' experiences, receiving positive

response or feedback from the peers was one example of helping students cross the

threshold because positive comments from peers made students feel like they were at

the center of discussion. Other experiences that were associated with crossing the

threshold included feeling more freedom in participation due to less gender

competition issue, engaging in small group exercises, and having well-defined topics

to concentrate on. The author reported that barriers to crossing the threshold for less

successful students consisted of (1) lack of confidence in taking part in peer discussion (2) lack of time, limited access, or high cost of long-distance phone line; (3) ineffective collaboration because of different cultural background and knowledge; (4) overwhelmed by the generated online messages both in quantity and quality; and (5) unfamiliar with the course structure at the early stage.

A similar research finding with regard to students' threshold experience is reported by Mavor and Trayner (2003). Mavor and Trayner (2003) investigated issues associated with designing an international, culturally sensitive online course. The online course examined was a 20-week post-graduate certificate course for teachers and trainers, which was offered by British University. The first ten weeks of the course were conducted in English with mixed international students, and the second 10 weeks was delivered in local areas in local languages with local tutors. The researchers reported that some students, particularly those who had different cultural background, tended to interpret the course objectives based on their own social, cultural, political experiences and perspectives, and expect the teaching style and class discourse to be like their current ones accordingly. The researchers claimed that different perceptions and expectations to the course had a negative impact on students' motivation and participation in the course activities. The authors suggested that deliberate course design and teaching pedagogy be considered to help students with different cultural background adjust to understanding the course objectives and pedagogies and be able to fully benefit from the course as intended. The authors asserted that helping students overcome the threshold from being peripheral to central and from being passive learner to active constructor of knowledge was the

key factor to the success of such learning communities. In order to assist students to cross the threshold experience, the researchers recommended a number of suggestions, such as, considering pre-course language tests to inform students of possible difficulties in taking the course, establishing small group tasks to increase the effectiveness of online communication and collaboration at the beginning of the class, and staging course activities and interactions progressively, e.g. moving from more structured tasks to more open ones.

Other Factors

Gilbert and Driscoll (2002) contended that the success of a knowledge building learning community also greatly depended upon the attitudes and expectations of the learners within the community. They asserted in order for such a learning environment to be effectively formed, students' existing beliefs and conceptions toward traditional learning models must be extricated first. Similar findings have also been reported by several other researchers (Kochtanek & Hein, 2000; Harmon & Jones, 2000; Wegerif, 1998). Angeli, et al. (2003) attributed the failure of the online session partly to students' attitude toward the value of the course. In the study, students reportedly sensed no added value for participating in the required learning activities. Wang, et al. (2003) indicated that maturation and experiences of students were associated with the success of their learning. In their study, the students examined were adult learners whose social experiences and maturation reportedly positively enhanced the building of learning communities. In addition, students respecting one another and affirming others' thoughts were also reported supporting factors in sustaining the learning community. Hill, et al. (2002) asserted that

encouragement and being supportive to peers were effective approaches to reinforce online learning communities. Likewise, Moller, et al. (2000) reported that valuing a team's efforts and achievements promoted the sense of satisfaction among team members in the learning communities. Maor (2003) found that the social-emotional side of discussion helped strengthen the development of a community of learners, such as informal self introduction and conversation, and affective support. Some researchers reported that feedback and timely responses from group members had helped increase the sense of participation to the group project, which would further help the group achieve higher performance (Moller, et al., 2000). Contrarily, Gilbert and Driscoll (2002) and Wegerif (1998) reported that lack of feedback and timely responses from team members would result in negative impact on students' participation and learning.

The overall findings of the social, psychological aspect of factors that researchers have identified in support of fostering a community of learners are listed in Table 2-2.

Table 2-2. Social factors associated with building online learning communities

Social Factors	Sources of Study
1. Warm-up strategies - familiarization stage - student profiles	Wegerif (1998); Hill, et al. (2002); Wang, et al. (2003)
2. Social presence	Gunawardena & Zittle (1997); Rovai (2002); Tu & McIsaac (2002)
3. Threshold experience	Mavor & Trayner (2003); Wegerif (1998)
4. Others - Attitude & expectations	Angeli, et al. (2003); Gilbert & Driscill (2002); Harmon & Jones (2000); Kochtanek & Hein (2000); Wegerif (1998)
- Maturation & experience	Wang, Sierra, & Folger (2003)
- Affective support	Moller, et al. (2000); Maor (2003); Wang, et al. (2003)
- Feedback & timely responses	Gilbert & Driscoll (2002); Hill, et al. (2002); Moller, et al. (2000); Wegerif (1998)

Managerial Issues in Maintaining Online Learning

Researchers have reported several managerial issues associated with

implementing collaborative, constructivist teaching/learning paradigms. One of the

major issues is the maintenance of enormous amount of discussion and messages

generated by participants in CMC learning environments. Flexibility in scheduling is

one other concern.

Maintaining the Quantity of the Discourse

Many researchers reported that the total number of messages posted online as

well as the length of students' threaded discussions had positive relationships with

students' satisfaction and perceptions toward learning communities (Swan, et al., 2000; Tu & McIsaac, 2003; Rovai, 2002; Wegerif, 1998), and with the student's sense of responsibility (Moller, et al., 2000). However, feeling overwhelmed by the amount of discussion statements generated by CMC participants had often increased students' frustration and thus reduced their learning motivation and learning outcomes (Angeli, et al., 2002; Gilbert & Driscoll, 2002; Harmon & Jones, 2000; Wegerif, 1998). Determining how to balance between encouraging students' participation and contribution to class discussions and maintaining a reasonable amount of discussion and posting messages becomes a big challenge to instructors teaching CMC courses. The managerial strategy reported by Maor (2003) was that the instructor required students to be clear and concise with their discussions with no more than one text page or 500 words for per weekly topic. Gilbert and Driscoll (2002) suggested to reducing the reading selections for the class community as well as restricting the number of responses posted. Hill, et al's (2002) study reported that students' strategy of dealing with enormous amount of online messages was reading for content, as opposed to reading for detail; that is, scanning rather than scrutinizing the materials posted.

Harmon and Jones (2000) asserted that the largest challenge faced by the class not only came from overcoming the newness of the concept of constructivist learning, but also of time demanded. The researchers revealed that there were thousands of pages of postings generated in the class. Keeping up with those postings appeared a challenging task to many students; to some it was impossible to keep up and they eventually dropped out of the course. Not only did the interactive, collaborative type

of CMC learning environments require students' time and effort, it also demanded

the instructor to invest substantial amount of time and effort to practice this type of

teaching. Kochtanek and Hein (2000) estimated that it might take two to four times

as much moderating interaction as in delivering lecture in a regular classroom setting.

Maor (2003) also asserted that a heavy commitment both in time and effort was

required for the instructor to be able to facilitate collaborative, constructivist oriented

instructional practices.

Flexibility in Scheduling

Keeping instructional topics and schedule flexible in the interactive, dynamic

online learning environments is one other idea that several researchers have suggested.

Maor (2003) reported that the only managerial task she had encountered in maintaining

her class was to remain flexible with the course structure and schedule adjustment.

Kochtanek and Hein (2000) stated that the development of interactive online learning

communities was dynamic and unpredictable. They suggested that distance instructors

be prepared to remain flexible in coping with developing class situations, such as

accommodating new learning direction initiated by students, spending extra time on

topics students became more interested in or confused by, and encouraging curricular

activities beyond the set ones. Hill, et al. (2002) reminded that it was important for the

instructor to announce and update the up-coming class activities, which they claimed

was one of the best techniques for promoting and sustaining students' positive attitude

toward web-based learning communities. On the other hand, they also asserted that

students must check class messages frequently for the technique to take effect. Gilbert

and Driscoll (2002) reported that students on several occasions requested extended

time for completing the final project. The researchers also stated that it might take

more time for students to develop a sense of learning community and to function as

one to accomplish the required project.

Table 2-3 lists the two important managerial issues associated with effectively

implementing collaborative, constructivist teaching/learning in CMC environments.

Table 2-3. Managerial aspect of issues

Managerial Aspect	Sources of Study
Maintenance of the quantity of CMC discussions	Gilbert & Driscoll (2002); Harmon & Jones (2000); Hill, et al. (2002); Kochtanek & Hein (2000); Maor (2003)
Flexibility in scheduling	Gilbert & Driscoll (2002); Hill, et al. (2002); Kochtanek & Hein (2000); Maor (2003)

Technological Aspect of Factors Associated with Online Learning

The technology related issues associated with developing learning communities

in CMC environment is discussed from four perspectives, including impact of

students' technical skills on the success to individual and to the course, students'

perceptions toward the privacy of the media, impact of access to multiple

communication tools, use of emoticons, and opportunity of reflective thinking.

Impact of Students' Technical Skills

Several researchers have asserted that the proficiency level of student's

technical skills is positively associated with students' success to the online distance

course. Harmon & Jones (2000) reported that students who were technically advanced appeared to have an advantage at the beginning of the class; they tended to participate in class discussions more actively and also enjoyed the class more than those who were not as proficient with the technology. The researchers asserted that acquiring good technical skills prior to the class seemed to reflect on increased confidence; increased confidence in turn increased comfort level, which could thus make differences in students' attitudes toward the course. However, the researchers also reported that many students who came to the class without sufficient technical skills quickly developed the skill level required in the class. They contended that the technical skills were some unintentional added value developed in the online learning course. Maor (2003) reported that students' high proficiency at technology was a distinct advantage to both students and the instructor in that processes of the course could mainly focused on pedagogical, social aspects of learning, rather than technical issues. Swan, et al. (2000) revealed that 88% of students, out of the total 1,406 survey respondents, reported confidence in their computer skills. The researchers claimed it might be a sign of changing trends of computer literacy.

Perceptions toward Privacy of the Media

Investigating students' perceptions toward different CMC systems, Tu and McIsaac (2002) found that students perceived a significant difference in the level of privacy among the three CMC systems employed in the course. Among the three tools, students ranked e-mail system the highest in perceptions of system privacy, followed by online chat system, and then bulletin board. The researchers reported

that the privacy factor was an important element in the level of comfort for students studying online. Format of CMC (email, chat, and bulletin board), access and location, and pattern of CMC (one-to-one vs. many-to-many) were identified important variables in the privacy dimension.

Access to Multiple Communication Tools

Gilbert and Driscoll (2002) reported that lack of immediate response of the asynchronous communication tools diminished students' attempt of engaging in collaborative task. Students suggested that tools providing synchronous features, such as chat room, be used alongside asynchronous features to count tract the drawback of the asynchronous communication. Hill, et al.'s (2002) study found that providing students with access to multiple communication tools, such as online chat room, discussion board, and email, was one of the best strategies that helped establish effective web-based learning communities. When comparing interaction of synchronous and asynchronous communication media, Harmon and Jones (2000) reported that the asynchronous interactions made up substantial amount of the discourse in the course. However, the researchers stated that most students found the use of synchronous chat room to be a frustrating experience due to frequent system breakdown and competition for getting words across. The researchers stated that technology-related problems reported by students were much more challenging than the researchers had initially expected.

Use of Emoticons

Kochtanek and Hein (2000) stated that because interaction in CMC systems was conducted through typing, the limited characters displayed in the keyboard might become insufficient in communication in some instance and could not closely represent the user's emotional expression. Many researchers reported that in order to compensate for the lack of social, nonverbal cues in asynchronous, text-based communication, participants in CMC environment were inclined to develop a way of making their communication easy and representative. Tu and McIsaac (2002) reported some students used emoticons (e.g. ☺ ☹) and paralinguistic symbols (e.g. :- happiness, :-@ shock or screaming) to increase the degree of social presence. Gunawardena and Zittle (1997) also stated that students who perceived a higher degree of social presence moderated their psychological, social affection by using emoticons to deliver absent nonverbal cues in written form. Wang, et al. (2003) found that emoticons and acronyms (e.g. LOL: laugh out loud, BRB: be right back) were commonly seen in online communication mode. Students who were more advanced with the CMC tools were reportedly more likely to communicate using paralinguistic symbols with their group members. However, for those who chose not to use emoticons in communication, the researchers stated that a typical response was "Emoticons are just too damn hard to type" (p.17).

Opportunity of Reflective Thinking

Despite of constraints of communicating via typing, some researchers argued that asynchronous, written format of CMC has also provided students with some unique advantages. Kamin, Glicken, Hall, Quarantillo, and Merenstein (2001)

reported that the feature of asynchronous, text-based mode in CMC affected students' satisfaction of their perceived levels of thinking. The initial purpose of the study conducted by Kamin, et al. (2001) was to evaluate whether the use of virtual, asynchronous electronic course could resolve scheduling difficulties encountered at their center. To the end, the researchers conducted an experimental research comparing the effectiveness of the Evidence-Based Medicine course using traditional face-to-face setting (FTF) to that of electronic learning setting (CMC). Twenty-seven second-year physician assistant students registered in the Evidence-Based Medicine course were randomly assigned to either FTF groups or CMC virtual groups; two groups in each mode. Students were required to develop skills necessary to practice in a health care system; such as proposing a researchable clinical question, reviewing literature, and making decisions based on the evidence acquired. A pre-test and a post-test were administered at the beginning and at the end of the term respectively to measure the learning outcomes.

The researchers reported that both groups demonstrated significant improvement in the test scores. However, there was no significant distinction between the two groups in overall performance. Significant differences were found in student attitudes between the two groups from four aspects: 1) FTF groups reported greater participation in discussions because of more relaxed, non-verbal cues; 2) CMC groups expressed better able to understand the ideas and concepts taught in the course due to the nature of the asynchronous computer-mediated communication that allowed them to store, retrieve, and share discussions as needed; 3) CMC groups had more time to ponder about the projects before posting their

responses, and appeared more satisfied with their contributions when allowed with more time to construct their responses; and 4) CMC groups reported more difficulty relating to other students in the class because of the lack of pre-established relationship. The researchers asserted that CMC discussion was a viable teaching/learning approach to deliver the type of course examined since no adverse impacts on student performance or attitudes were found. They also claimed that the CMC approach could be used as an alternative to face-to-face small group discussion. In addition, the researchers contended that communicating ideas via text helped to promote students' thinking and reflection not only on the content of their own contributions but also of their peers', which the researchers argued was not possible in the face-to-face condition. However, the lack of potential differences might be due to the lack of statistical power because of the small sample size.

Table 2-4 summarizes the technological aspect of factors that have impact on students' learning attitudes and learning outcomes in CMC environments.

Table 2-4. Technological aspect of variables

Technological Aspect	Sources of Study
Students' technical skills	Harmon & Jones (2000); Maor (2003); Swan, et al. (2000)
Perception of privacy	Tu & McIsaac (2002)
Multiple communication tools	Gilbert & Driscoll (2002); Harmon & Jones (2000); Hill, et al. (2002)
Use of emoticons	Harmon & Jones (2000); Gunawardena & Zittle (1997); Tu & McIsaac (2002); Wang, et al. (2003)
Opportunity of reflective thinking	Kamin, et al. (2000)

Summary of Research Methods of Studies Reviewed

Different research paradigms were employed in the reviewed studies. Both qualitative and quantitative methodologies were commonly seen in the literature. Research triangulating both quantitative and qualitative methods was also not uncommon. In the quantitative aspect, many studies were exploratory research. Survey was the most frequently used research method. Some used experimental and quasi-experimental research methods to deal with their sample groups, such as Kamin, et al. (2001) and Rovai (2002) respectively. Only a few studies used descriptive research paradigm. However, in qualitative research, more studies employed a descriptive approach, including action research, such as Wang, et al. (2003). Case study was frequently used in qualitative research with exploratory research paradigm. Several researchers employed ethnographic approach to conduct their study, such as Tu & McIsaac (2002) and Wegerif (1998). Berge and Mronzowski (2001) reviewed research in distance education during 1990 to 1999 indicated that three fourths of the total 890 research articles and dissertations they reviewed used a descriptive methodology. However, in this review, descriptive research is no longer a dominating research method, though the small number of articles reviewed in this paper could be a consideration. One obvious trend is that researchers in distance education are increasingly adopting qualitative research paradigms to conduct their study.

As to data collection techniques, questionnaire was the main instrument in quantitative study, while interview and online observation were commonly used in the qualitative research. Due to the CMC feature capable of archiving

communication transcripts, content analysis became a basic analysis tool to qualitative researchers. In data analysis, most studies triangulated quantitative data with qualitative evidence, or vice versa. In some cases, qualitative data was quantified for quantitative analysis. Because of the nature of the research focus (learning communities), many studies employed a group or an entire class as the unit of analysis, rather than an individual. In addition, course subjects in quite a few studies which examined only one specific distance course, as opposed to investigating a number of various courses, were to teach participants how to design online instruction for their own future teaching. Participants in those studies were educators, current teachers, or student teachers.

As mentioned, researchers contended that the dominant paradigm of instructional design in earlier distance education was predetermined course packages structured around independent study (Garrison, et al., 2003). Little literature emphasized thinking skills or learning processes which were dependent upon social, interactive models (Anderson & Garrison, 1995). However, the review of this study found that distance educators and instructors are increasingly focusing on examining students' learning experiences and promoting students' cognitive processes. As far as theoretical framework is concerned, most researchers examining learning communities clearly associated their design principles with social learning theories, such as social constructivist approach, situated learning, collaborative learning, and/or distributed learning. Face validity did not seem to be a concern in the qualitative studies. Researchers who conducted a qualitative study were either veteran instructors themselves or individuals with an educational background and

degree, though most were not experienced in designing online instruction that was aimed at promoting students' thinking skills. Some researchers revealed that reliability and validity, especially internal validity, was the weakness in distance education research (Bernard, et al., 2004; Berge & Mronzowski, 2001). However, most quantitative articles chosen in this review did address reliability and/or validity in their study, although some gave more rigid descriptions, such as Gunawardena and Zittle (1997) and Rovai (2002), than others. Low survey return rate or small sample size examined, however, appeared to be the variable which was detrimental to some quantitative studies, such as Swan, et al. (2000) and Kamin, et al. (2000). In addition, none of reviewed distance courses focusing on promoting students' cognitive processing skills were in disciplines of math or natural science, which appears to be areas that distance researchers and educators in the higher education could emphasize in the future.

Synthesis of the Literature Reviewed

The three assumptions included in the conceptual framework are:

1. Thinking skills can be promoted through social, collaborative interaction between the instructor and students and among peers.

2. Collaborative, constructive learning is embedded in learning communities, which promote student-centered learning.

3. Learning communities can be fostered through instructional design and the changing role of the instructor as a facilitator.

Can learning communities be created through instructional design and the changing role of the instructor as a facilitator (assumption 3)? Research suggests, with social-theory-based design of instruction, along with an appropriate role of the facilitator/the instructor, it is possible to create learning communities in the CMC environments. Can constructive, collaborative, student-centered learning be promoted through online learning communities (assumption 2)? Again, research suggests a learning community with active, engaging participants has the potential to facilitate collaborative, interactive type of learning. However, the extent of students' meaningful learning directly associated with the engagement to learning communities is far from clear. Although some researchers reported that certain instructional conditions had promoted students' reflective thinking skills, no evidence had revealed that the created collaborative learning communities directly contributed to or helped facilitate such cognitive development. Therefore, promoting students' higher-order thinking through social, collaborative learning environments (assumption 1) appears somewhat difficult in the current state of distance education. The overall conclusions of the reviewed studies can be summarized as:

1. Compared to traditional classroom setting, web-based computer-mediated communication systems appear viable tools for creating online learning communities.

2. Instructional design of distance courses based on social learning theories can foster a community of learners.

3. Building an online student-centered learning community that helps promote students' higher-order thinking skills is much more complicated, comprehensive, and also involves more variables than expected.

4. More effective strategies and instructional design are required to help

students develop higher-order thinking skills under such student-centered,

constructivist, collaborative learning communities.

Discussions of Frameworks in Support of Cognitive Processing

More effective instructional design and pedagogical strategies are needed in

helping students improve thinking skills in the established learning communities. To

this end, several researchers have suggested instructional frameworks or models to

help teachers and educators construct their course instruction in such a way that

would better meet the course objectives and expected learning outcomes. Four

frameworks are discussed, including Bloom, Engelhart, Furst, Hill, and Krathwohl

(1956) taxonomy of educational objectives; Anderson, Krathwohl, Airasian,

Cruikshank, Mayer, et al. (2001) revised taxonomy for learning, teaching, and

assessing; Marzano (2001) new taxonomy of educational objectives; and Garrison, et

al. (2000) model of community of inquiry.

Bloom, et al. (1956) Educational Taxonomy

Bloom, et al. (1956) published a handbook of taxonomy of educational

objectives as guidance for teachers and educators to design teaching and learning

objectives. They proposed six levels of hierarchic organization of educational

taxonomy in their framework: knowledge, comprehension, application, analysis,

synthesis, and evaluation. The six categories, their definition, and subcategories are

listed in Table 2-5.

Table 2-5. Bloom, et al. (1956) educational taxonomy

Categories	Definition	Subcategories
Knowledge	"Behaviors and test situations which emphasize the remembering, either by recognition or recall, of ideas, material, or phenomena" (p. 62)	Specifics: terminology and fact Ways and means of dealing with specifics: e.g. trends and sequences, criteria, and methodology Universals and abstractions: principles and generalizations, and theories and structures
Comprehension	"When students are confronted with a communication, they are expected to know what is being communicated and to be able to make some use of the material or ideas contained in it" (p. 89)	Translation: e.g. encoding information Interpretation: e.g. reordering of ideas into a new configuration Extrapolation: involving inferences and predictions
Application	"Apply appropriate abstraction without having to be prompted as to which abstraction is correct or without having to be shown how to use it in that situation" (p. 120)	
Analysis	"Emphasizes the detection of relationships of the parts and of the way they are organized" (p.144)	Identification or classification of elements Relationships among elements Organizational principles that govern elements
Synthesis	"The putting together of elements and parts so as to form a whole" (p. 162)	Unique communication A plan or set of operations A set of abstract relationships
Evaluation	"The making of judgments about the value, for some purpose, of ideas, works, solutions, methods, material, etc." (p.185)	Internal: e.g. judgments External: e.g. opinions)

Knowledge is the first level of the taxonomy. *Comprehension*, according to Bloom, et al. (1956), represents the lowest level of understanding. The *application* category requires students a step beyond comprehension. *Analysis* is defined in terms of comprehension and application as "In comprehension, the emphasis is on the grasp of the meaning and intent of the material. In application it is on remember and bring to bear upon given material the appropriate generalizations or principles. Analysis emphasizes the detection of relationships of the parts and of the way they are organized" (Bloom, et al., 1956, p.144). *Synthesis* is a process of organizing and combining pieces and elements and presenting them in a meaningful whole not articulate before. The highest level, *evaluation*, is associated with the use of criteria and standards for judging, assessing the effectiveness, accuracy, and satisfaction of the assessed.

Although Bloom, et al. (1956) taxonomy has been widely used by many teachers, educators, and even policy makers for their decision making in the past half century, it has not been employed without criticisms. Many argue that the process-content distinction on which the taxonomy is based on is oversimplified; for instance, content described in the taxonomy is underrepresented, and the linear of simple-to-complex cognitive level is not comprehensively, appropriately structured (Furst, 1994). The overlapped areas of knowledge and cognitive processes woven with knowledge may be much more complex, and not with a clear-cut, hierarchical processing order (Marzano, 2001). Not constructing the categories of knowledge domain and cognitive processing based on theoretical underpinning of authentic

taxonomies is one other major criticism made to Bloom, et al. (1956) taxonomy (Furst, 1994; Marzano, 2001).

Anderson, et al. (2001) Revised Taxonomy

Forty five years later, Anderson, et al. (2001) published a revised version of the cognitive taxonomy. There are twelve changes in the new version compared to the original handbook (see Anderson, et al., 2001, Appendix A). Some major changes include:

1. The taxonomy is represented in two dimensions consisting of the cognitive process domain and the knowledge domain (see Table 2-6), as opposed to one dimension with mixed domains in the initial handbook.

2. Two major categories, *comprehension* and *synthesis*, retitled to *understand* and *create* respectively.

3. The revision emphasizes the 19 subcategories underlying in the cognitive process dimension, whereas the original framework focused on the six major categories, rather than the subcategories.

4. The major category titles are made consistent with how objectives are framed, which is missing in the original framework. They explained that "A statement of an objective indicates that the student should be able to do something (verb) to or with something (noun) – a verb-noun relationship" (p. 265). For example, "The student will learn to distinguish (the cognitive process) among confederal, federal, and unitary systems of government (the knowledge)" (p.7), where

distinguish in the objective is the cognitive process and *confederal, federal, and unitary systems of government* is the domain of knowledge.

5. While the initial six categories were designed to be distinguishable with each other and not to overlap, Anderson, et al. (2001) emphasized that the revised categories do not form a cumulative hierarchy. They contended that the new framework "is a hierarchy in the sense that the six major categories of the cognitive process dimension are presumed to be ordered in terms of increasing complexity" (p.267).

Table 2-6. Anderson, et al. (2001) revised taxonomy table

The Knowledge Dimension	The Cognitive Process Dimension					
	Remember	Understand	Apply	Analyze	Evaluate	Create
Factual						
Conceptual						
Procedural						
Metacognitive						

Source: Anderson, et al. (2001), backside of the front cover

As Table 2-6 shows, the cognitive process dimension is broken into six levels: remember, understand, apply, analyze evaluate, and create. The six major categories with a total of 19 subcategories and their definitions are displayed in Table 2-7. The knowledge dimension is composed of four categories: factual knowledge, conceptual knowledge, procedural knowledge, and meta-cognitive knowledge. These categories and definitions are described in Table 2-8.

Table 2-7. Cognitive process dimension

Categories & Cog. Proc.	Alternative Names	Definitions and Examples
Remember - Retrieve relevant knowledge from long-term memory		
Recognizing	Identifying	Locating knowledge in long-term memory that is consistent with presented material (e.g., Recognize the dates of important events in U.S. history)
Recalling	Retrieving	Retrieving relevant knowledge from long-term memory (e.g., Recall the dates of important events in U.S. history)
Understand - Construct meaning from instructional messages, including oral, written, and graphic communication		
Interpreting	Clarifying, paraphrasing, representing, translating	Changing from one form of representation (e.g., numerical) to another (e.g., verbal) (e.g., Paraphrase important speeches and documents)
Exemplifying	Illustrating, instantiating	Finding a specific example or illustration of concept or principle (e.g., Give examples of various artistic painting styles)
Classifying	Categorizing, subsuming	Determining that something belongs to a category (e.g. Classify observed or described cases of mental disorders)
Summarizing	Abstracting, generalizing	Abstracting a general theme or major point(s) (e.g. Write a short summary of the event portrayed on a videotape)
Inferring	Concluding, extrapolating, interpolating, predicting	Drawing a logical conclusion from presented information (e.g., In learning a foreign language, infer grammatical principles from examples)
Comparing	Contrasting, mapping, matching	Detecting correspondences between two ideas, objects, and the like (e.g., Compare historical events to contemporary situations)
Explaining	Constructing models	Constructing a cause-and-effect model of a system (e.g. Explain the causes of important 18th Century events in France)
Apply - Carry out or use a procedure in a given situation		
Executing	Carrying out	Applying a procedure to a familiar task (e.g. Divide one whole number by another whole number, both with multiple digits)
Implementing	using	Applying a procedure to an unfamiliar task (e.g., Use Newton's Second Law in situations in which it is appropriate)
Analyze - Break material into constituent parts and determine how parts relate to one another and to an overall structure or purpose		
Differentiating	Discriminating, distinguishing, focusing, selecting	Distinguishing relevant from irrelevant parts or important from unimportant parts of presented material (e.g., Distinguish between relevant and irrelevant numbers in a mathematical word problem)
Organizing	Finding coherence, integrating, outlining, parsing, structuring	Determining how elements fit or function within a structure (e.g., Structure evidence in a historical description into evidence for and against a particular historical explanation)

Table 2-7. Cognitive process dimension (Continued)

Categories & Cog. Proc.	Alternative Names	Definitions and Examples
Attributing	Deconstructing	Determine a point of view, bias, values, or intent underlying presented material (e.g., determine the point of view of the author of an essay in terms of his or her political perspectives)
Evaluate - Make judgments based on criteria and standards		
Checking	Coordinating, detecting, monitoring, testing	Detecting inconsistencies or fallacies within a process or product; determining whether a process or product has internal consistency; detecting the effectiveness of a procedure as it is being implemented (e.g., Determine if a scientist's conclusions follow from observed data)
Critiquing	Judging	Detecting inconsistencies between a product and external criteria, determining whether a product has external consistency; detecting the appropriateness of a procedure for a given problem (e.g., Judge which of two methods is the best way to solve a given problem)
Create - Put elements together to form a coherent or functional whole; reorganize elements into a new pattern or structure		
Generating	Hypothesizing	Coming up with alternative hypotheses based on criteria (e.g., Generate hypotheses to account for an observed phenomenon)
Planning	Designing	Devising a procedure for accomplishing some task (e.g., Plan a research paper on a given historical topic)
Producing	Constructing	Inventing a product (e.g., Build habitats for a specific purpose)

Source: Anderson, et al. (2001), backside of the back cover

Table 2-8. Knowledge dimension

Categories	Definitions
Factual	The basic elements students must know to be acquainted with a discipline or solve problems in it
Conceptual	The interrelationships among the basic elements within a larger structure that enable them to function together
Procedural	How to do something, methods of inquiry, and criteria for using skills, algorithms, techniques, scientific method
Meta-cognitive	Knowledge of cognition in general as well as awareness and knowledge of one's own cognition

Source: Anderson, et al. (2001), p.29

Marzano (2001) Revised Taxonomy

Marzano (2001) also published a revised taxonomy based on the framework

proposed by Bloom, et al. (1956) in the same year as did Anderson, et al. (2001), in

which a two-dimensional model was also proposed - levels of processing and

domains of knowledge. The first dimension consists of six levels of processing,

composed of three systems of thought (self-system, metacognition, and cognitive)

(see Table 2-9). In the cognitive level of process, there are four components of

knowledge (utilization, analysis, comprehension, and retrieval), which Marzano

(2001) stated distinguishes various categories of knowledge from the cognitive

processes that drive them. The second dimension, domains of knowledge, is

composed of three general categories: information, mental procedures, and

psychomotor procedures (Table 2-10). He suggested that these types of knowledge

can be regarded "as related *domains* that are acted upon by the cognitive,

metacognitive, and self-systems" (p.17). Marzano claimed that each of the six

cognitive levels is articulately interwoven with the three knowledge domains.

Table 2-9. Marzano (2001) revised taxonomy

Levels	Systems of Thought	Definitions and Components
6	Self-system	Contains a network of interrelated beliefs and goals for making judgments about the advisability of engaging in a new task
5	Metacognition	Sets goals relative to the new task; design strategies for accomplishing a given goal once it has been set
4	Cognitive 4 Components of Knowledge: 1) Knowledge Utilization	Responsible for the effective processing of the information essential to the completion of a task Associated with those that individuals employ when they wish to accomplish a specific task; 4 categories: decision making, problem solving, experimental inquiry, & investigation
3	2) Analysis	Involving the reasoned extension of knowledge; 5 types of analysis processes: matching, classification, error analysis, generalization, and specification
2	3) Comprehension	Translating knowledge into a form appropriate for storage in permanent memory; involving 2 related processes: synthesis and representation
1	4) Knowledge Retrieval	The activation and transfer of knowledge from permanent memory to working memory, where it might be consciously processed

Source: Marzano (2001), pp. 59-105

Table 2-10. Three domains of knowledge

Categories	Definitions and Components
Information	Declarative knowledge; including 2 hierarchical categories: 1) organizing ideas: principles, generalizations 2) details: e.g. episodes, facts, vocabulary terms
Mental Procedures	Procedural knowledge; organized into 2 hierarchical procedures: 1) processes: macro procedures 2) skills: tactics, algorithms, single rules
Psychomotor procedures	Composed of physical procedures an individual uses to negotiate daily life and to engage in complex physical activities for work and for recreation. 1) processes: complex combination procedures 2) skills: simple combination procedures, foundational procedures

Source: Marzano (2001), pp. 15-28

There are several similarities between Anderson, et al. model and Marzano model. Some of the similarities are: (a) both present a two-dimension model of taxonomy with research- and theory-based support; (b) both of the two-dimension models are categorized into domains of knowledge and levels of cognitive process; (c) both emphasize the importance of metacognitive domain and thus includes the domain in their taxonomy, though one considers it as an independent cognitive system, the other regards it as part of the cognitive process domains; and (d) both demonstrates examples of designing learning objectives. However, there are also some differences between the two models in terms of applying the models. Anderson, et al. (2001) model specifically provides a list of subcategories (the 19 verbs) that teachers should use when designing their objectives. Marzano's model in contrary does not suggest teachers to construct their objectives using some certain format, though the concept and the terminology within each category and subcategory are clearly stated. Nevertheless, the taxonomy table Anderson et al. (2001) provided to

the audience appears to be a clearer array (cells) of possible objectives and the relationships between the two-dimension categories. Marzano's model, in the other hand, does not seem as straightforward, and some aspects in some categories appear redundant. For instance, the psychomotor procedure defined in the domains of knowledge is mainly used for the purpose of physical operation, and not used for other subject matters, such as understanding of hitting a curve ball in baseball and deciding the best kick in karate as the book has exemplified. In some situation, this procedure of knowledge is not even applicable to certain level of processing, for example, the psychomotor skills are not applicable to the knowledge application process of *investigation* underlying the *knowledge utilization* level (the fourth level) of processing. Similarly, the *information* domain of knowledge is not applicable to *process monitoring* categorizing under the *metacognition* system, the fifth level of processing.

Garrison et al. (2000) Model of Community of Inquiry

Emphasizing that teaching is not the transmission of content, but a process of facilitating the exploration and creation of knowledge through collaborative inquiry, Garrison, et al. (2000) proposed a conceptual model and a tool for the use of CMC and computer conferencing in supporting an education experience. The model of community of inquiry they described assumes that learning occurs within the community through interaction of three overlapping elements: social presence, cognitive presence, and teaching presence. The three elements and their definitions are provided in Table 2-11. *Cognitive presence* focusing on higher-level thinking

processes is considered most basic element to success in higher education. *Social*

presence serves as a supporting component for cognitive presence, moderating the

process of higher-order thinking implemented in the community of learner. *Teaching*

presence is the reinforcing element in establishing a community of inquiry for

learners within the community.

Table 2-11. Garrison, et al. (2000) model of community of inquiry

Core elements	Definitions
Cognitive presence	"[T]he extent to which the participants in any particular configuration of a community of inquiry are able to construct meaning through sustained communication" (p. 89)
Social presence	"[T]he ability of participants in the Community of Inquiry to project their personal characteristics into the community, thereby presenting themselves to the other participants as "real" people" (p.89)
Teaching presence	The element "consists of two general functions... The first... is the design of the education experience... The second function, facilitation, is a responsibility that may be shared among the teacher and some or all of the other participants or students" (p.89)

Garrison, et al. (2002) further elaborated each of the three elements into

different categories, which the researchers stated are to be used as indicators when

coding and analyzing the discourse taking place in the community of inquiry. There

are four categories included in cognitive presence element: triggering event,

exploration, integration, and resolution. Social presence is broken down into three

categories: emotional expression, open communication, and group cohesion.

Teaching presence also consists of three categories: instructional management,

building understanding, and direct instruction. These categories and examples of

indicators are listed on Table 2-12. Even though Garrison, et al. (2000) model was

developed as an attempt of supporting computer-mediated learning environments, it

functions more as instructional activities than cognitive processes.

Table 2-12. Community of inquiry coding template

Elements	Categories	Examples of indicators
Cognitive Presence	Triggering Event Exploration Integration Resolution	Sense of puzzlement Information exchange Connecting ideas Apply new ideas
Social presence	Emotional expression Open communication Group cohesion	Emotions Risk-free expression Encouraging collaboration
Teaching presence	Instructional management Building understanding Direct instruction	Defining and initiating discussion topics Sharing personal meaning Focusing discussion

Source: Garrison, Anderson, and Archer (2000), p. 89

CHAPTER III. METHODOLOGY

Theoretical Framework

Social Construction

Constructivism, as an epistemological stance, argues that the human world is different from the real world, and the process of meaning-making is imposed by the human perception toward the world, rather than existing in the world independently of human beings (Duffy & Jonassen, 1991). In social constructivists' view, knowledge meaning-making "refers to constructing *knowledge about* reality, not constructing reality itself" (Shadish, 1995, p. 67). Schwandt (1994) contended that human beings are all constructivists, provided that the mind is actively engaged in the construction of meaning making. Knowledge construction would most likely occur within socially situated and actively participatory practices.

Patton (2002) addressed three foundational questions for studies using a social construction aspect of inquiry:

- How have the people in this setting constructed reality?

- What are their reported perceptions, "truths," explanations, beliefs, and worldview?

- What are the consequences of their constructions for their behaviors and for those with whom they interact? (p. 96)

In the inquiry process, Guba and Lincoln (1989) stated that "stakeholders are groups at risk...a group at risk ought to have the opportunity to make whatever claims, or raise whatever question, it deems appropriate, and to have those inputs honored" (p. 51). To better understand how students in a distance course acquire their knowledge

and achieve the intended learning objectives, a theoretical framework of social construction was employed. Patton's foundational questions described above were constantly reviewed when observing the practiced ongoing course activities and presented artifacts, however, with different context foci. As students presented and described their experiences in the web-based learning environment, they were reporting how they were constructing the reality of their learning. Specific reality-describing questions examined:

- What were students' beliefs and attitudes toward learning online?
- What were their perception and reaction toward the learning community embodied by the course?
- What and how did they respond to prompts designed to invoke cognitive processes?
- How did they engage in the use of technology and understand the extent to which the technology helps them to accomplish their learning goals?
- How did they prepare themselves to engage in the class activities and accomplish required tasks, such as assignments and projects?
- What, if any, were the gender, cultural differences in the ways that students interact and communicate in proceeding and achieving their learning goals?

Case Study

This study was conducted through qualitative case studies to explore the foundational questions. Instrumental case study method identified by Stake (2000) was used as the case study approach, in which investigation of cases only served as a

supportive role for the purpose of the study. An in-depth of examination of the purposefully selected cases, the studied context, and associated activities would help the researcher better understand the research questions.

According to Kramarae (2003), female students constituted the majority of undergraduate college students in the United Stated; they also formed the majority of students taking online course. Nevertheless, Kramarae (2003) pointed out that there were issues experienced mainly by females, such as family responsibilities, concern about academic compatibility, and constrained time for additional responsibilities, that demanded attention from all distance education administrators, instructors, and students themselves. In addressing the feminist constructivist standpoint, Schwandt (1994) indicated that feminist advocates contended that "women's life experiences are not captured in existing conceptual schemes", and therefore focus was placed particularly on "the ways in which gender is socially constructed" (p. 128). Much attention in this study was thus intended to give to women's perspectives with regard to how they perceive and experience their life under the existing social hierarchy. Gender was therefore a major concern in the case selection mechanism.

This study attempted to select six most representative cases with an equal number in each gender. However, in the term the study was conducted, there were only nine students registered in the course; among the nine students only four of them expressed interest in participating in the study. All these four students were females, which eliminated the gender selection issue concerned in the study. All four participating cases completed the course and earned an academic grade for the course. The study thus focused on examining the nature of learning experiences and

engaged cognitive processes regarding how students successfully completed the web-based course.

Research Context

This study examined an asynchronous Web-based online course, titled "Women: Self and Society". The course was taught by a female faculty member in the Women Studies Department at a northwestern university. The course was an undergraduate, lower-division course, and was one of the Difference, Power, and Discrimination (DPD) courses, which are part of academic baccalaureate core courses. The course was studied in the Fall of 2004 for ten weeks. The description posted on the website of the Distance Education of the university stated the aims of the course as follows:

> The course is multidisciplinary introduction to women studies, focusing on the lives and status of women in society and explores ways institutions such as family, work, media, law and religion affect different groups of women. It explores issues of gender, race, class, age, sexual orientation, size and ability."

The instructor responded to the researcher's invitation email, and expressed her interest in participating in the study. According to the instructor in a later interview, she was interested in the research area of this study, particularly the focus on examining students' higher-order thinking skills fostered on the online course.

This online course was implemented through the use of Blackboard Learning and Community Portal System™, release 6. The courseware provides users with an email system, an asynchronous threaded discussion forum, and a synchronous online

chat option. It was the intention of the study to examine an online course practiced using a computer-mediated communication tool that was readily available to most institutions in that duplication of the study could be more easily generated by future researchers.

Data Collection

Seven various data sources were used to gather evidence for the examination of the course, including pre-survey, interviews with the instructor, interviews with participating students individually, course documents, artifacts submitted by students, email correspondences between the instructor and the class and among students, and the researcher's journals. Each type of data collected helped to address associated research questions the study investigated. However, some of the data sources bore on more than one research question. Table 3-1 shows the relationship between each research question and each type of data source. Table 3-2 displays the week and time frame that each data source was collected over the term.

Table 3-1. The relationship between research questions and data sources

Data source / Question	Pre-survey	Interview instructor	Interview students	Course documents	Student artifacts	Email corresp.	Researcher journal
Do the instructional objectives of the course provide students with the opportunities to learn the domains of knowledge and intended levels of cognitive processes that the instructor targets?		X		X			X
Does the designed instruction (learning activities and assessment tasks) help students to achieve the desired learning objectives?	X	X	X	X	X	X	X
How do the perception(s) of the instructor change over the course as she examines the cognitive nature of the instruction she delivers?		X		X	X	X	X
What changes for future instruction are identified that are intended to strengthen this course in subsequent offerings or future courses?		X	X	X	X	X	X

Table 3-2. Timetable of data collection over the term

Task/Week	1	2	3	4	5	6	7	8	9	10	11	15
Students:												
Pre-survey				x	x							
Interviews												
via face-to-face					x						x	
via email					x	x	x	x	x	x	x	
Email with peers/instructor					x	x	x	x	x	x	x	
Weekly assignments[*]	x	x	x	x	x	x	x	x	x	x		
Group project[**]	x	x	x	x	x	x	x	x	x	x		
The instructor:												
Interviews		x				x	x					x
Email with students/class	x	x	x	x	x	x	x	x	x	x		
The researcher:												
Course documents	x	x	x	x	x	x	x	x	x	x	x	
Students' grades assigned	x	x	x	x	x	x	x	x	x	x	x	
Online observations	x	x	x	x	x	x	x	x	x	x	x	

[*]Readings, journals, and discussion questions
[**]Activism project and research paper

1. Pre-survey

   A self-report survey was first administered to the four students participating in the study. The survey collected four categories of information including student academic-related data, technological-related information, learning habit and personal belief, and demographic information (see Appendix 3-1). The survey data served as baseline information of participating students' background. It was speculated that initial differences among participating students, such as acquired technical skills, experiences with taking online course, and prior knowledge to the course subject, might impact their study effort and learning results.

2. Course documents

   All course related materials posted on the course website were gathered, including course syllabus, instructional activities, technical support information, and external resources available to students. The collected information provided baseline information in relation to the overall organization of the course, and the intended instructional objectives and required instructional activities of the course.

3. Artifacts submitted

   All the artifacts that students posted on course website were downloaded, including (1) weekly journal assignments - two journals per student per week, (2) weekly readings file assignments - three readings per student per week, (3) weekly online threaded discussions - one to three discussion questions per week with various numbers of responding postings, and (4) a group project consisting of one individual research paper and a final report from each group. These data sources

served as direct evidence of students' learning outcomes as a result of the instructional activities and assessment plans designed in the course.

4. Interviews with participating students

The interviews provided an opportunity to gather more information regarding student perspectives, such as their attitude toward taking the course, beliefs about learning online, personal background, past as well as ongoing learning experiences, and reflection on the current course. Students' reflections with respect to potential improvement of the course for future terms were also obtained.

The initial plan of the study was to interview each of the participating students approximately 30 minutes twice, either via telephone or face-to-face format. The first interview was planned to be conducted in the fifth week and the other in the week following the final week. Students in the first interview would be asked five categories of semi-open-ended questions, including: background information, course-related information, and technological-related information, personal information, and self-reflection. Each category consisted of two to five questions (see Attachment 3-2). In the second interview, students would be asked three categories of semi-open-ended questions with a total of 14 items. Questions in the second interview included students' overall learning experiences of the course and reflection about the course (see Attachment 3-3).

However, due to some students' personal preference, the interview format was modified to accommodate each student's situation. Three different approaches were employed to collect the interview data described above:

a) One student was interviewed twice via face-to-face meeting; the first interview took place in the fifth week, and the other in the eleventh week as planned. The first interview lasted 45 minutes and the second one took 50 minutes.

b) Two students responded to all interview questions via email correspondence. Starting from the fifth week to the ninth week, the first set of interview questions was emailed to these two students; three to six questions were sent out per week, depending upon the number of questions received previously that were necessary for a follow-up. The second set of the interview questions was sent to the two students all in once at the end of the term. However, one student returned the interview questionnaires in the eleventh week, whereas the other never responded to the email, even though reminders were sent.

c) Data from the fourth student was gathered through a mix of both methods described above. Information for the first set of interview questions was obtained from the student via email correspondence starting in the fifth week as did in the above (b) approach. But information for the second set of interview questions was acquired through a face-to-face meeting as did in the (a) condition. Face-to-face interview with this student took place in the eleventh week, which lasted approximately 50 minutes.

5. Interviews with the instructor

Interviews with the instructor helped illuminate the instructor's beliefs and attitudes toward teaching the online course, how and why she designed the course activities and assessment tasks, and what she expected students to accomplish in the course. How and what the instructor perceived about changes needed to help

students develop cognitive processes as well as what improvements the instructor identified to enhance the web-based course in future terms were also collected.

Two interviews with the instructor were planned, either through face-to-face or telephone; the first one was to take place in the first week of the term and the other in the week right after the final week. In the first interview, the instructor would be asked 18 semi-open-ended questions, which were grouped into five aspects, including background information, course objectives, instructional design, assessment plans, and others (see Attachment 3-4). The second interview, planned to be held in the eleventh week, contained 12 questions composed of the instructor's overall assessment of students' performance and suggestions for teaching such course in the future (see Attachment 3-5). However, a total of four interviews were actually conducted because of the need of more frequent follow-ups on students' learning progress, including: (1) in the middle of second week, (2) at the beginning of the sixth week, (3) at the end of the seventh week, and (4) four weeks after the final week. The first interview was conducted through the phone, and the remaining three were held through face-to-face meeting. The first interview, focusing on the first set of interview questions, lasted approximately 40 minutes. The second and third interviews were follow-up interviews aiming at students' progress and performances in the lapsed weeks and the instructor's assessment practices administered to student performance. These two interviews lasted about 40 minutes and 10 minutes respectively. The second set of interview questions was the focus of the final wrap-up interview, which took approximately one and a half hours. Other than asking the predetermined questions, some of the

assignments students submitted were used as examples for discussing the instructor's grading and assessment policy.

6. Email correspondences

Email correspondences exchanged between and among the participants were collected and documented, including (a) emails exchanged between the instructor and the class and between the instructor and individual students, and (b) emails exchanged between and among students.

The first email source was obtained via emails forwarded by either the instructor or students. Email messages collected from this source were related to class announcement, feedback that the instructor provided to students for their submitted assignments, reminders, and Q&As. A total of 21 emails were gathered and documented. The second email source, consisting of 19 emails, was attained through emails forwarded by two of the participating students. Most of the 19 emails contained multiple, continuous emails exchanges between and among students. Topics of the messages that students exchanged and discussed about were mainly associated with the tasks required in the group project.

These email correspondences presented vivid, dynamic relationships taking place between and among the participants, particularly when the email system was the sole media that the instructor employed to communicate with the class and students, and was also the major approach for students living in a distance to communicate with the instructor and their peers.

7. The researcher's journal

The researcher's notes taken during observing the course activities throughout the term were used as a supplemental data source. The journals tracked the frequency of students' participation in the instructional activities and submission dates of students' assignments. Other than information associated with online observation, notes taken during an informal face-to-face meeting with the instructor prior to the beginning of the course, were also documented. An unpublished paper of the instructor's that the instructor shared with the researcher was also archived, in which the instructor discussed the possibility of teaching Women's Studies courses on the web using a feminist pedagogy.

These journal data served as direct, self-explanatory evidence regarding to what extent students enrolled in the class had engaged in the class activities, and in how timely a manner students submitted their assignments. The data also indirectly assisted in explaining why the instructor perceived a need for changes to strengthen the course in the future offerings. In addition, the notes remarked on the collected article received from the instructor helped to describe based on what belief and principles the instructor delivered the web-based course.

Data Analysis

This study employed an analytical induction approach to analyze data, which "offers a specific form of inductive analysis that begins deductively, by formulating propositions or hypotheses, and then examines a particular case in depth to determine if the facts of the case support the hypothesis" (Patton, p.94). The inductive-deductive cycling shed light on evidence concerning participant views of the web-

based pedagogy they were engaged in. The purpose was to better understand and explain a phenomenon satisfactorily using qualitative, case-based inquiry. Descriptions of data processing, coding scheme, and analysis frameworks employed in the study are provided as follows.

Data Processing

The collected data was organized and processed using three different software applications depending upon the type of the data itself, including (1) WORD for text-format data, such as surveys, interviews, downloaded artifacts, and email exchanges; (2) PAINT for visual-type of data, such as figures and pictures copied directly from the course website; and (2) EXCEL for spreadsheet type of data, such as assignment grading/score. As mentioned, some of the data sources appeared to bear more weight than others in addressing the research questions, particularly interview data, course documents, and students' artifacts. A coding scheme used to analyze interview data and analysis frameworks employed to analyze course documents, instructional strategies, and students' artifacts are described below respectively.

Coding Scheme

The three types of codes, descriptive, interpretive, and pattern codes, addressed in Miles and Huberman's (1994) study were used to code and analyze the interview data. After transcribing the interview data, the data were coded paragraph by paragraph first to *describe* the overall content of the interview data. Examples of codes used included "instructional designed related", "assessment related",

"interaction related", "technology related", "reflection related", etc. It was expected that multiple codes would emerge within the same paragraph. In the second stage of coding process, the data were coded *interpretively*, either statement by statement or paragraph by paragraph. New variables that emerged were recorded. After the coding process, statements or paragraphs coded with the same or similar variables were grouped, labeled, and archived in a file. In many cases where lengthy statements were grouped under the same variable, such as "collaborative", "technology-student" vs. "technology-instructor", and "study style", a new file was created for that particular variable. Statements coded with multiple variables were duplicated and stored under each variable, so that possible themes derived from the associated statements would not be overlooked. General *patterns* or themes were then sought while repeatedly reviewing the statements in group. Some statements were re-grouped into different categories when the currently used variable did not seem fit to the statements originally labeled. In addition, interview data obtained from the instructor and from the students as well as among students were compared for the purpose of extracting consistent or contrasting themes emerged from those sets of data. The fundamental principle guiding the data coding process was that "it is not the words themselves but their meaning that matters" emphasized by Miles and Huberman (1994, p. 56).

Analysis Frameworks

The conceptual framework of educational Taxonomy Table, revised by Anderson, et al. (2001) (see Table 2-5), was employed to analyze the course

documents and student artifacts. This framework is chosen in that (a) it is an evidence-based model, and (b) it presents the users with a clear, easy-to-comprehend taxonomy table. The six cognitive processing categories, including the 19 subcategories (see Appendix 2-3), and the four domains of knowledge (see Appendix 2-4) described in Anderson, et al. (2001) Taxonomy Table were employed as guideline to analyze the data. The course documents were examined based on three aspects of instructional components as exemplified in Anderson, et al. (2001) framework: instructional objectives, instructional activities, and assessment plans.

Students' artifacts analyzed consisted of journals, reading files, discussion questions, and the activism project and research paper. Anderson, et al. (2001) Taxonomy Table was also used as the analysis framework to analyze the data. Content analysis was used to examine students' artifacts. Specifications of the six cognition processing levels and four knowledge domains indicated in Appendix 2-3 and Appendix 2-4 were employed to categorize the engagement levels and knowledge areas students demonstrated in their assignments.

Each of the three instructional components and students' artifacts were coded and analyzed independently. Examples of associated cognitive processes and knowledge domains that course documents and students' artifacts provided are in Table 3-3.

Table 3-3. Examples of associated cognitive processes and knowledge domains

Category	Examples
Factual	
Remember	Recite referenced information; express personal opinion without offering any new perspective
Understand	Summarize findings discovered from interviews, observations
Apply	Relate personal experiences to some known facts
Analyze	Integrate known facts to personal experience to provide a different perspective
Evaluate	(Nov applicable in the course)
Create	Write a letter to young females about the history of feminist
Conceptual	
Remember	Recognize unequal work distributions at work and at home
Understand	Explain the relationship between beauty norm and body health
Apply	Connect some social inequality issue to personal experience/relevancy
Analyze	Distinguish significance of some activists' contributions
Evaluate	(Nov applicable in the course)
Create	Generate a poem celebrating one's own beauty
Procedural	
Remember	Recall the procedure about how the activism project was carried out
Understand	categorize formation of family structure via interviewing families
Apply	Act as an activist to educate the public about AIDS/HIV
Analyze	Analyze ways one's religious community has been empowering for one as a woman by interviewing women in the religious community
Evaluate	(Nov applicable in the course)
Create	Devise an episode of a feminist soap opera
Meta-cognitive	(Nov applicable in the course)

As Table 3-3 indicates, some certain cognitive process and knowledge domain appeared inapplicable due to instructional design developed in the course, such as *evaluate* in the cognitive processing level and *meta-cognitive* in the knowledge domain.

In addition to course documents and student artifacts, teaching strategies implemented to support the achievement of course objectives were also reported using the four-role framework addressed by Bonk, et al. (2001). Findings associated

with instructional strategies practiced by the instructor were categorized based on the following four aspects: pedagogical, social, technological, and managerial aspects (see Appendix 2-1 for examples of roles).

Quality Control

It is inevitable that the researcher would have her own bias collecting and analyzing the data. However, the researcher triangulated data sources to capture and respect multiple perspectives in order to increase authenticity and reflexivity. Rich, detailed information about the selected cases were collected to increase the depth of understanding of these cases and situation investigated. Member checks were also conducted to those who had an oral interview. All data sources directly downloaded from the computer system or attained through the email system were remained intact, including the four types of students' works, the course documents, the email interview data, and email exchange messages.

To determine the reliability of coding, the researcher had once invited the instructor teaching the current course to co-code some of students' graded assignments. However, the instructor preferred to leave the coding and analysis process to the researcher's judgment. Nevertheless, during the interviews, the instructor had exemplified the way she assessed and graded students' assignments, which shed some coding clues about how she might have coded the data. An expert faculty in the researcher's Department was invited to co-code a portion of instructional components and students' artifacts. The researcher coded a portion of data first, and then the faculty coded the same data independently. The two sets of

coding were compared, discussed until complete agreement was reached before the researcher coded the remaining data collected.

The Researcher

The researcher has been involved in technology related field for many years, either through studying, working, or teaching. The researcher received her B.S. degree at the College of Business Management of a university in Taiwan, and then earned her MBA and MS (in Computer Science) degrees in the USA. After receiving the MS degree, the researcher worked at the Computer Center of a southeastern State Government for almost six years, and then she went back to her home country and taught at a college for nine years prior to pursuing her Ph.D. degree.

The researcher experienced her initial distance learning experience when she took one of her MBA courses, in which the instructor used a two-way communication system via TV monitor to connect two far sites. However, not until year 2001 when the researcher started pursuing her doctoral degree, did she have a chance to engage in the research field directly associated with the distance teaching and learning. By the time, the technology has advanced enormously, and the Internet and WWW have become much more accessible and available to the user. Rather than using video or audio teleconferencing systems, increasing number of instructors have been using computer-mediated communication (CMC) systems to deliver online courses or simply to reinforce their classroom teaching.

What intrigues the researcher's research interest in online teaching and learning most is the asynchronous nature of the distance learning, through which people now

have an opportunity to commit lifelong learning and study at anytime and any place. Mainly because of this, the researcher has become very focused on engaging to this field of research, particularly in the aspect of instructional design implemented in CMC systems. The researcher also believes, along with others in her field, that the key to the success of educational activities is appropriate use of instructional methodologies. Despite of the advanced features that CMC tools have provided to the user, the efficiency of the technology can never replace or equate to the effectiveness of the learning. How to design effective, interesting instruction to help people learn better and more easily is the researcher's career interest. In the future, the researcher wishes to promote the concept of lifelong learning anytime and anywhere to the people in her home country after acquiring her doctoral degree.

In the current study, in order to acquire a better understanding of the course subject, the researcher enriched her own knowledge in this specific field by reading the textbooks required in the course, searching the Internet for associated knowledge, as well as sitting in a gradate-level course, *Feminist Teaching and Learning*, offered by the Women Study Department in the concurrent term as the examined course took place.

CHAPTER IV. FINDINGS AND DISCUSSIONS

This chapter begins with brief an introduction of the participants involved in the study, including the instructor and students, and the course, including the course platform, organization the course, and course design. Next, findings associated with the practices of the course, along with students' learning experiences, are described. The four action roles addressed by Bonk et al. (2001) research are used to report the findings, consisting of pedagogical, social, technological, and managerial aspects. Each of the four aspects is described respectively, followed by a discussion of the results reported. Then analyses of instructional design and student performance are conducted respectively using the framework of Anderson, et al. (2001) revised Taxonomy Table; each is followed by a discussion of findings associated with the analysis. At the end an overall discussion of instructional design and student performance is provided, including to what extent the course had achieved its initial instructional objectives based on the results of student learning outcomes. The study also reports an emerging theme standing out among the data collected. Two cases of students appeared to have substantial differences in effort made to study the course and in learning outcomes demonstrated eventually earned the same grade in the course. How that discrepancy came about is addressed. Finally, an overall discussion of results reported in this chapter is provided.

The Participants

The Instructor

Teaching Experience. The instructor teaching the course had been a college educator for 17 years. She started her teaching career at a private liberal arts college in a Southwestern state for four years, and then moved to the current state where she taught at another liberal arts college for four more years before teaching at the current university in 1996. The instructor was also the current Director of Women's Study Department. She has been teaching the course since it was delivered online three years ago. Although the course was also offered in a traditional classroom setting, the instructor had never taught under such mode. In addition to the current course, the instructor also taught several other web-based courses. However, according to the instructor, those two courses were independent-study courses; no interaction among students was required. The instructor also mentioned that the reason she shifted to teaching online courses, rather than the traditional classroom ones, was because she was "pretty burned out" on teaching large introductory classroom courses. Therefore, when the online teaching possibility came along in 1999, in which the instructor received some grant support for developing the online version of the course, the instructor grasped the opportunity. With help from two graduate assistants and three computer specialists over a period of nine months, the web-based course was developed and launched.

Teaching and Learning Belief. What was the instructor's belief about teaching a distance course? To the instructor, the effort and time students spent on a distance course must be "equivalent" to that which they spent on the on-campus course. The instructor emphasized that she expected the quality of the course delivered online to

be no difference from that taught in a traditional classroom. The instructor's attitude

toward teaching this web-based course was revealed during her first interview held

in the second week of the term:

> ...Because of the nature of the distance students who live away from campus, this is a lot of times in addition to a full time job and a family. A lot of times they are single mothers. They just don't have the time and means to put into the course. That is why I added a statement [in the first class announcement] a couple of years ago that says, "You need to expect to spend 8 to 10 hours a week on this course, just like you would a course on campus." People would expect they could just kind of go, "Oh, it is distance. I don't have to put any time into it." As you can see, it is a pretty time intensive course, but on-campus courses are pretty time intensive. I wanted it to be equivalent to what is on campus. (The first interview with the instructor, Oct. 7, 2004)

The instructor's belief in this regard appeared to reflect on the "equivalent" amount

of instructional tasks she required students to accomplish in the course, which is

described in more details in later sections. In addition, pedagogical principles the

instructor employed in designing instruction, and instructional objectives the

instructor intended to achieve in teaching the course are also explored in the

following associated sections.

The Students

During the term the course was studied, there were only nine students

registered. Based on online observations, three of the nine students never participated

in any of the class activities throughout the term. Among the six students who

completed the course, four of them responded to the researcher's email invitation and

agreed to participate in the study. These four students are identified as Student A,

Student B, Student L, and Student S. The two non-participating (NP) students are named Student NP-X and Student NP-Y for referencing purpose.

The background information and characteristics of the four participating students is described below based on the information gathered from pre-survey, statements posted on the class discussion forums, interviews, email correspondences, and email follow-ups. Three different approaches were employed to collect interview data from the four studied cases as mentioned in the previous chapter. Student A was the one who undertook two initially planned face-to-face interviews; Student B and Student L solely used email correspondence to complete the interview tasks; and Student S accomplished the first set of interview task via email correspondence, and then completed the second set through a face-to-face interview at the end of the term. All students completing the course were females. The four students involved in the study were at the same age range, 20-29, and were all in single marital status. All these four students claimed themselves as self-motivated students, and tended to prefer individual study to group study. All asserted that they were comfortable with arguing and discussing with others; willing to speak up if needed, and believed that high-quality learning could take place without a traditional classroom.

The online observation revealed that Student B stopped engaging in the weekly instructional activities, including journal, readings, and discussion questions activities, after the fifth week of the term. However, according to email exchanges collected in the study, she seemed to continue participating in the group project with her group members. She made up most of the overdue assignments by the very end of term. The online observation also disclosed that Student NP-Y, on the contrary,

did not start to participate in class activities, both weekly tasks and the group project, until the sixth week of the term. One of the collected email exchanges revealed that Student NP-Y informed one of her group members then that she would begin to help the group with the project tasks. The online records also indicated that Student NP-Y made up the overdue weekly assignments for the entire term at the very end of the term.

Student A. Student A was a 20-year-old full-time freshman, major in International Business. She identified herself as Hispanic, and indicated that Spanish was her native language. However, she was born in the state in which she currently lived. She enrolled in the course because it was a baccalaureate core course. In the pre-survey, where students were asked how many hours per week they would dedicate to studying the course, Student A indicated she would spend five to fifteen hours per week on studying the course, as opposed to two other options of less than four hours and more than 15 hours. She was taking a total of 17 academic credit hours in the current term. In addition to the school work, she also worked in a local office as a part-time employee. She considered her personality neutral, as opposed to introvert or extravert. Although she preferred individual study, she indicated that she did not mind working with a group if needed. Student A lived near campus, within 20 minutes of driving distance. She claimed her computer skill level was "average", as opposed to "high", "low", or "no skill."

Student B. Student B was a Caucasian American and a mother of a six year old child. Her major was Agricultural Business Management. She registered in this course as an elective. Student B also lived nearby the campus. The reasons she enrolled in this online session, rather than a traditional classroom session, were due to family responsibility and tuition expenses. She had taken one to two other Women's Study courses prior to the current one, and she had taken more than four web-based courses previously with another institution. She had a part-time job, but was prepared to spend five to 15 hours devoted to the course per week. She claimed her computer skills were "high".

Student L. Student L identified herself as a minority with mixed races from European countries. English was her native language. She had taken three to four Women's Studies courses before and had taken one or two online courses earlier. She was a Junior/Senior student, and registered in the course as an elective. She indicated her computer skills were "high". She described herself as an introvert and preferred individual study. Student L was the only students among the four studied cases that lived out of the state, on the east side of the country. She was also the only student who expressed being very uncomfortable with communicating via writing. Although Student L had a full-time job, she indicated that she was prepared to commit 5 to 15 hours devoted to the course per week.

Student S. Student S was a Caucasian American. She reported that this course was her first Women's Studies class; she enrolled in the course because it was a

baccalaureate core course. She was the only studied case that had no prior experience with the courseware employed in the course. However, she had taken three to four online courses earlier using other similar courseware. She was a junior student, with a major in Liberal Arts. Unlike the other three students who claimed they would spend five to 15 hours per week on the course, Student S indicated that she was prepared to spend less than four hours on the current course per week. She lived approximately two hours away from the campus. She had a full-time job near where she lived. The main reason she took online courses, according to her, was because she had realized that "the job market is very tough," and she did not want to sacrifice her job for the study.

A summary of the background information and characteristics of the four students is provided in Table 4-1.

Table 4-1. Summary of the Background Information of the Four Studied Cases

Questions	Student A	Student B	Student L	Student S
Academic related information				
Academic level	Freshman		Jr./Sr.	Junior
Major	International Business	Agricultural Bus. Mgmt.		Liberal Arts
Number of Women's Studies courses taken before	0	1-2	3-4	0
Reason for enrolling the course	Bacc. core	Elective	Elective	Bacc. core
Study and learning related information				
Study habit/preference	Ind.+group	Individual	Individual	Individual
Personality	Neutral	Neutral	Introvert	Neutral
Number of hours devoted to the course per week	5-15	5-15	5-15	< 4
A self-motivated person	Agree	Agree	Strongly agree	Agree
Comfortable with discussing with others	Strongly agree	Agree	Strongly agree	Agree
Willing to speak up if problems arise	Strongly agree	Agree	Strongly agree	Agree
Technological related information				
Prior computer skills	Average	High	High	Average
Prior experiences with Blackboard	Y	Y	Y	N
Reason for taking this online course	Interested	Family and cost	Distance	Family
number of online courses taken before	0	> 4	1-2	3-4
Comfortable with communication via writing	Agree	Strongly agree	Strongly disagree	Agree
Convenience of access to the computer	Convenient	Very convenient	Very convenient	
Believe high quality learning withou going to the classroom	Agree	Strongly agree	Agree	Strongly agree
Demographic information				
Gender	F	F	F	F
Age	20-29	20-29	20-29	20-29
Marital status	Single	Single	Single	Single
Employment	Part-time	Part-time	Full-time	Full-time
Proximity to campus	< 30 min.	< 30 min.	> 2 hours	1~2 hours
Racial-ethnic identity	Hispanic	White	Other	White
Native language	Spanish	English	English	English
Number of children	0	1	0	0

The Course

The Course Platform

The courseware used to implement the course was Blackboard Learning and Community Portal System™, release 6. The courseware consisted of six categories of management functions. Each category was embedded with various features:

1. Content Area: for posting syllabus, course content, and project

2. Course Tool: for posting announcement, course calendar, staff information, and communication methods, such as emailing and discussion board

3. Course Options: for managing the course menu and archiving course documents

4. User Management: listing/modifying users allowed to access the system and managing users in groups

5. Assessment: viewing grades received and statistics of usage

6. Support: providing Blackboard tutorial manual and system administrator contact information

Organization of the Course

Using the features provided in the courseware, the current course was organized into the following nine components:

1. Announcements: for posting class announcement and upcoming class events; this component was set as the portal page of the course

2. Syllabus: containing course description, objectives, assignments, grading, and course schedule, as well as technical information and resources of services the university had provided

3. Chapters: composed of course lecture based on the textbook and external resources related to the course content

4. Discussion Board: allowing users to engage in asynchronous threaded discussion through posting statements in the discussion forum

5. Project: describing the group project and associated activities required in the course

6. Groups: containing names and contact information of group members assigned in each group for the group project

7. Tools: providing options for students to set up and edit their own homepage, access to tutorial Blackboard manuals, as well as view assignment grades

8. Faculty: consisting of the instructor's name, contact information, and personal web link.

9. Communication: providing additional communication options to users, including online collaboration (virtual classroom), sending/maintaining emails, and class roster.

Figure 4-1 illustrates the nine components described above - the nine vertical rectangle boxes aligned on the left-most area. These nine hyperlinked boxes were first displayed on the portal page of the course, the announcement page, and then remained as sidebar on every webpage browsed. In Figure 4-1, and those that follow, the university's identity was intentionally erased.

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EXTENDEDCAMPUS   UNIVERSITY

WS 223 **Women: Self & Society**

VIEW TODAY   VIEW LAST 7 DAYS   VIEW LAST 30 DAYS   VIEW ALL

Mon, Mar 17, 2003 – *Welcome and a Few Things You Should Know*
Welcome to the online section of Women: Self and Society! Before you begin the class, there are a few things you should know.

First of all, you should expect to spend 8-10 hours per week on the course, just as you would a regular on-campus course. In order to make the threaded discussions most effective, moving through the course together is essential. Therefore, deadlines will be strictly enforced. Each week's assignments (threaded discussion, journals, and reading files) must be submitted no later than the Friday of the week for which they are assigned. We will cover one chapter in Women's Voices, Feminist Visions per week, and each chapter involves discussion, journal, and reading files. During weeks 3, 4, and 5 you will have a choice between two different chapters to cover during those weeks. For specific details, see the syllabus under the Course Information button on the Blackboard site for the course. Other assignments include an activism project and paper. For more information and due dates, refer to the syllabus.

Second, you'll find the primary website for the course by following the link under the "Documents" button on Blackboard. This site provides additional course information and will help you process course content. This is also where you will find the journal and reading assignments. To submit those assignments, follow the directions listed on the website to utilize the dropbox.

Third, the threaded discussion assignment is meant to provide you with a forum to exchange ideas with your classmates and help each other think beyond the obvious. My expectation is not simply that you'll post your answer and then move on. Rather, I expect you to engage with one another, challenging each other's ideas, offering new perspectives, and making the assignment a true discussion with give and take. Of course, I also expect civility and respect in your online communications with one another. The threaded discussion is a great opportunity for us to build community and get to know one another a bit.

Finally, don't hesitate to contact me if you have questions. I'm looking forward to a great learning experience together.

Announcements
Syllabus
Chapters
Discussion Board
Project
Groups
Tools
Faculty
Communication

POWERED BY
Bb
Blackboard

Figure 4-1. The Portal Page of the Course

Course Components

All course content and documents, including syllabus, lectures, instructional activities, and external resources, were uploaded on Blackboard before the course actually started. The course content and instructional activities were presented in four components: Syllabus, Chapters, Discussion Board, and Project; each of which is described respectively in the following section.

Syllabus. When clicking the *Syllabus* option, three subcomponents were shown: Syllabus, Getting Started, and Resources. The *Syllabus* subcomponent contained general description of the course information, such as assignments and course schedule (see Appendix 4-1 for detailed content). The *Get Started* subcomponent provided students with technology-related information; for instance, how to download and plug in some software and media players, and where to acquire utilities to access to the university's computer system. Some academic-related resources were also included in the *Resources* subcomponent, in which links to some university services and student homepage location were provided.

Chapters. The *Chapters* component was where the course content and instructional activities were located. Two sources of information constituted the major content of this component: one of the required textbooks (*Women's Voices, Feminist Visions: Classic and Contemporary Readings*) and Internet links to a variety of external resources. A list of 13 links was displayed in this component. Each corresponded to one of the thirteen chapters included in the textbook. Each

chapter was designed as an independent unit containing weekly instructional activities. Four elements were included under each of the 13 chapters: Lecture, Journal, Readings File, and Discussion Question. The first element, *Lecture*, was composed of seven to ten activity units depending on the content of each chapter. Figures 4-2 exemplifies the eight activity units (the square box) contained in Chapter 1. *"Objectives"* was always the first item listed under each chapter. Three other activities were also common to all chapters: Activist Profile, Readings (File), and Discussion (Questions). Every webpage in the course was designed with two buttons: ◖PREVIOUS and NEXT◗, which allowed the user to go forward or backward from the current page.

Each activity unit was hyperlinked to an associated webpage, in which specific instructional activities or external links related to the lecture were provided. Examples of activities are provided later in the *Analysis of Instructional Design* section. Online audio clips were also included as part of course content in some lectures. The speeches were accessible online in both audio and text forms. In some chapters, quizzes were provided as students' self-evaluation activity. For example, in Chapter 12, students were asked to complete a 15-question quiz regarding "How Well Do You Know the Goddess?"

Figure 4-2. Activity Units Contained in Chapter 1

The three subcomponents listed under Lecture - Journal, Readings File, and

Discussion Questions - were the three major weekly assignments of the course. In

addition to the description of the assignments, instructions and templates were also

available for students to follow and complete the required tasks. Clicking the

subcomponent, Discussion Questions, would lead students to the discussion board

forum where the question to be discussed was located. It was an additional access for

students to the discussion forum; students could otherwise access the discussion

forum via the link, Discussion Board, displayed on the portal page of the course.

Discussion Board. This component directly connected students to the weekly

Discussion Questions location. There were a total of 23 forums listed in the

discussion board; each had one pre-determined question posted. The first forum was

"Introduction" providing students an opportunity to introduce themselves to the class.

The second forum was "General Discussion" used for posting course related

questions, such as assignments, deadlines, and suggestions. Forum 3 to forum 21

consisted of questions associated with each chapter's lecture. Some chapters

contained only one discussion question, whereas others might consist of two to three

questions. The last two forums, "Activism Project Group 1" (forum 22) and

"Activism Project Group 2" (forum 23), were for students to exchange information

for their group project, which is described in the next section. Figure 4-3

demonstrates the first five forums (up to Chapter 2) posted on the discussion board.

The Blackboard system automatically kept track of the messages submitted and read,

including the total number of messages posted in each forum and the count of

messages being read. For unread messages, the system would alert the user by the

word "new". Students could create a forum and read the messages posted; however,

they were not authorized to modify or delete the posted messages.

Figure 4-3. Examples of Discussion Questions Posted on Discussion Board

Project. This component provided students the access to where the information

of the group project was archived. Clicking the *Project* button on the portal page

would lead students to four options: Activism Project, Group 1 Discussion/Peer

Review, group 2 Discussion/Peer Review, and Submit Project. Each of the four

elements was hyperlinked to the next level of the webpage associated with the

project. The Activism Project link connected students to the entry point where the

specification of the Activism Project and Research Paper assignment was located.

The middle two buttons, Group 1 Discussion/Peer Review and Group 2

Discussion/Peer Review, connected students to discussion forums 22 and 23

respectively. The former forum was for students assigned to Group 1 to exchange

messages; whereas the latter was for students in Group 2 to do so. The fourth

element, Submit Project, was the template that allowed students to complete, view, and submit their project works.

Findings Associated with Course Practices

The framework of four action roles addressed by Bonk, et al. (2001) is used to report the findings, which consists of pedagogical aspect, social aspect, technological aspect, and managerial aspect. Table 4-2, derived from Table 3-1, illustrates the three dimensions of relationships among research questions, data sources, and the four aspects. As shown in the table, each research question might be addressed by one or multiple aspects of practices, which are described based on various data sources.

Table 4-2. The relationship between research questions and the four action areas

Question / Data source	Pre-survey	Interview instructor	Interview students	Course documents	Students' artifacts	Email corresp.	Research journal
Do the instructional objectives of the course provide students with the opportunities to learn the domains of knowledge and intended levels of cognitive processes that the instructor targets?	Pedagogical Aspect						
		x		x			x
Does the designed instruction (learning activities and assessment tasks) help students to achieve the desired learning objectives?	Pedagogical Aspect						
	x	x	x	x	x	x	x
	Social Aspect						
	x	x	x			x	x
	Technological Aspect						
	x	x	x				x
How do the perception(s) of the instructor change over the course as she examines the cognitive nature of the instruction she delivers?	Pedagogical Aspect						
		x		x	x	x	x
What changes for future instruction are identified that are intended to strengthen this course in subsequent offerings or future courses?	Pedagogical Aspect						
		x	x	x	x	x	x
	Social Aspect						
		x	x				x
	Technological Aspect						
		x	x				x
	Managerial Aspect						
		x	x				x

Pedagogical Aspect

Prior to describing instructional practices and strategies, the instructor's

instructional goals and pedagogical principles are addressed first. Description of

goals and teaching principles that the instructor believed would provide insight into

what was behind the instructional design presented in the course. Next, instructional

design of the course is described, including course objectives, instructional activities,

and assessment plans. And then instructional strategies implemented in the course are discussed along with students' reaction to learning experiences with the strategies practiced and the instructor's response to students' reaction. At the end, discussion of findings associated with pedagogical strategies is provided.

Teaching Goals and Principles. According to the instructor, promoting students' higher-order thinking skills was one of her major goals in teaching the course. Because the current course was a Difference, Power, and Discrimination (DPD) course, the instructor in the first interview stated that not only would she attempt to meet the criteria required in the DPD course (see Appendix 4-2), but she would also emphasize the area on helping students develop their critical thinking around the course subject. The instructor described her overarching goals of teaching the course as follows.

> Because it is a DPD course there is already one whole set of criteria that the course has to meet… Part of it is, of course, I want to meet the criteria of the DPD classes. Any bacc. [baccalaureate] core class is you want to develop critical thinking. That is a big component of it. Particularly I want them [students] to develop critical thinking around understanding how systems of power and privilege operate, essentially around gender. Being able to really think critically about how gender is at work and how differences of race, sexual identity, social class, age and ability interact with gender. That is what the big thing is, really to be able to think critically through those issues. (The first interview with the instructor, Oct. 7, 2004)

The instructor defined "critical thinking" as:

> I want them to be able both to analyze and synthesize ideas – to be able to look at something, to pick it apart, but also to be able to put it together with other maybe different ideas and create new ideas. There is also that sort of leap of creativity in it, so it is not simply understanding what is in front of them, but being able then to do something new with it. For me it is both of

> those things – it is both the analytic and the sort of creative synthesis of it.
> (The first interview with the instructor, Oct. 7, 2004)

In addition to helping students develop critical thinking skills, the instructor expressed that her other instructional goal was associated with "behavioral" aspects of learning. The instructor continued:

> Then, the next step for me, then, is to act on what they have learned, so that they become people who are involved on behalf of social justice. There are also some behavioral goals for the class, and that is why there is an activism project. I want them also to learn to do justice as well as to think about it.
> (The first interview with the instructor, Oct. 7, 2004)

In order to achieve the above goals, the instructor appeared to associate her instructional design with some instructional principles she espoused. Approximately two months before the current term, the instructor shared an unpublished article[1] of hers with the researcher. In the article the instructor addressed whether it was possible to teach Women's Studies on the web using feminist pedagogy. The instructor in the article stated that feminist educators who relied greatly on face-to-face interactions and community-building in the traditional classroom setting might not consider a feminist web course possible. Nevertheless, the instructor in the article explored some of the possibilities of web-based pedagogy for feminist educators and instructors. She suggested that when developing and designing virtual feminist classrooms the following principles be used:

1. Student-centered

   The role of the student as the individual responsible for his or her own learning is central to a feminist pedagogy.

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[1] To protect the privacy of the instructor, the reference of the unpublished article is not disclosed.

2. Participatory

   Feminist pedagogies encourage students to actively engage in the course content and interact with peers.

3. Non-hierarchical

   A revolutionary feminist teaching must first challenge the established hierarchies of the teacher-student, expert-recipient relationship and the issue of power because teacher is in a position of power over others.

4. Collaborative

   Feminist pedagogies challenge the concept of independent, isolated learning; rather, jointly building a learning community in which students can work interdependently is emphasized.

5. Activist

   Students in the feminist education are encouraged to become activists because it is an important way of connecting feminist knowledge to practice in the real world.

6. Empowering

   Feminists believe that moving students toward becoming "conscious constructors" of knowledge will help them develop a powerful sense of self and voice.

7. Accessible

   One main goal of feminist pedagogies is the assurance of the accessibility of feminist knowledge and access to the process of knowledge construction.

In the article, the instructor concluded that the web-based course might offer an opportunity for Women's Studies educators to create "an additional avenue of access to feminist knowledge" while achieving the goals of feminist pedagogy at the meanwhile. The instructor, nonetheless, cautioned that deliberate considerations must be taken prior to developing an web-based course, such as effort and time demanded, technological skills involved, and the institutional commitment.

Instructional Design. The instructional design of the course is described from three areas: course objectives, instructional activities, and assessment plans respectively.

1. Course objectives

According to the course syllabus, eight overall objectives were to be accomplished in the course (see Appendix 4-1 Objectives). These objectives appeared to target to students' being able to understand how the social systems worked, being able to recognize and analyze inequality existing in the systems that involved women's lives, and being engaged in activism on behalf of social justice. In addition to the eight overarching objectives, according to the course document, there were also sub-objectives that the instructor intended to achieve in the lecture delivered in each week. For instance, the two sub-objectives specified in Chapter 1 were:

- To understand the history, goals, perspectives and practices of Women Studies as an academic discipline
- To develop skills in researching Women Studies on the world wide web.

2. Instructional activities

According to course syllabus, there were four major instructional tasks that students were required to accomplish in the course: readings file, learning activities journal, discussion questions, and activism project and research paper. The first three were weekly assignments, whereas the last one was a term project. Each type of the tasks is briefly described below based on the information provided on the course syllabus (also see Appendix 4-1 Assignments), lecture content available on the course website, and textbooks required in the course.

a) Learning activities journal

Students were required to submit two journals each week. There were multiple learning activities associated with each week's lecture. Students could select any two of the activities as the topics to compose their weekly learning activity journals. For example, one of the learning activities in the first week asked students to interview five people in their community regarding what people thought of feminism, and then compose a journal based on their findings. According to the course syllabus, the goal of journal assignment was to provide students with the opportunity to use the information they were learning to "analyze issues and events related to women's lives and to interact face-to-face with people" in the community students lived in.

b) Readings file

Each week students were required to submit three reading files based on the articles they read on the main textbook. There are seven to nine short articles appended at the end of each chapter that students could choose from. Each article was approximately three to four pages long with a few exceptions. Students were

required to accomplish this assignment by filling out seven elements that the instructor provided in the reading file card, including Author, Reading Title, Thesis, Supporting Arguments, Author's Purpose, Intended Audience, and Questions. According to the course syllabus, the purpose of the reading activities was to provide opportunities for students to "process course content and to construct new knowledge in interaction" with classmates via Discussion Board as described below.

c) Discussion questions

Discussion through Discussion Board forums was also a weekly class activity that students were required to engage in. Each week, there was one to three discussion questions assigned for the week's lecture. Students were expected to make a minimum of three postings per question during the week. The purpose of the activity, according to the syllabus, was to provide students with the opportunity of interacting among one another to reinforce the "necessary component of building community within the class".

d) Activism project and research paper

In addition to the above three weekly class activities, students were also required to collaborate on a term project. The activism project was constituted of one individual research paper and a group report. Students were assigned to one of the two groups, Group 1 and Group 2, for the project. Tasks involved in the project are summarized as follows:

- Selecting a topic for the group

- Each group member wrote an individual paper related to the topic the group chose

- Posting the paper on the discussion forum

- Identifying and addressing problems posed in the paper

- Posting a detailed plan for the group to execute the project

- Posting activism materials to be distributed to the public in the plan

- Completing and posting the final group report

According to the syllabus, students were expected to "participate in a form of activism on behalf of women".

3. Assessment plans

Students' final grade was assigned based on their performance of the four assignments described above. There was no mid-term examination, nor a final examination in this course. Grading policy associated with each type of assignments is summarized below based on specifications provided on the course syllabus *Assignments* section:

a) Learning activities journal (30%): Each of the two weekly journals was worth one and a half points. A maximum of three points per week might be earned. A total of 30 points (three points each week for ten weeks) accounted for 30 percent of the student's final grade.

b) Readings file (30%): The total scores for the three weekly readings file were three points, one point each. A total of 30 points (three points each week for ten weeks) made up one other 30 percent of the student's final grade.

c) Discussion questions (10%): Participation in each week's discussion was worth one point. Ten weeks of participation was worth a total of ten points, that is, 10% of students' final grade.

d) Activism project and research paper (30%): The final 30% of the grade came from the project, which was broken down into five elements:

- The individual research paper: 25%

- The detailed plan for conducting the activism project: 15%

- Posting educational materials, brochures, etc.: 15%

- The final group product: 40%

- Posting of dialogue with other students' responses: 5%

The total score that students could earn was 100.

Instructional Strategies. Bonk et al. (2001) suggested that the online instructor assumed the role of facilitator, designing a variety of educational activities, providing feedback, and referring to outside resources in the field. Bonk and Cunningham (1998) proposed a number of pedagogical principles and practices be employed to help students effectively learn from student-centered, constructivist, sociocultural learning environment, such as mediation, assisted learning, learning communities, and assessment. Teaching practices administered in the current course are thus described using the suggested perspectives. Based on course documents and interview data, it appeared that pedagogical roles the instructor assumed and strategies the instructor used to help students acquire knowledge of the course were associated with the following: 1) facilitator role, 2) assisted learning, 3) writing to learn, 4) experiential learning, 5) collaborative learning, 6) provision of feedback, and 7) assessment plan; each of which is discussed respectively as follows.

1. Facilitator Role

The instructor in this study described her role in the course as a moderator. The instructor explained why and how she played the facilitator role during her first interview held at the second week of the term:

> "They [students] have the content, because that's in the book and that is on the website. They have all of these activities and things to do, so I see my role as empowering them to do those things, encouraging them, helping them figure out how it is working, giving them feedback so that they know if they are doing a good job or achieving the goals or if they need to think in different directions." (The first interview with the instructor, Oct. 7, 2004)

Encouraging students to engage in learning activities and providing them feedback, according to the instructor, were some main strategies of making sure students accomplished the course goals and developed appropriate thinking skills. In addition, being a facilitator in the class to the instructor also meant helping students to become more responsible for their own learning, rather than their passively relying on the instructor for everything. The instructor made the following statements in her second interview:

> Obviously it requires them [students] to take a lot of responsibility for their own learning. I've never felt like the role of a teacher is just to give them everything. They are responsible for taking the book and learning the content. (The second interview with the instructor, Nov. 1, 2004)

2. Assisted Learning

Assisted learning was one of the instructional strategies that the instructor employed in teaching the course. It appeared that two strategies associated with assisted learning were used in the course - scaffolding and task structuring. During the first interview, the instructor was asked to describe her method of helping

students attain initial knowledge of the course subject. The instructor stated that the primary way she assisted students to learn the fundamental knowledge was "through the reading". The instructor mentioned that she required two textbooks for students to read in the course. According to course syllabus, these two textbooks were Shaw and Lee (2001) and Baumgardner and Richards (2000) (See Appendix 4-1 Required Textbooks). The instructor stated that the first textbook was used because it was "very student centered." She explained:

> The textbook is very student-centered. We [two faculty[2] teaching the course in the Department], for example, chose to use generally shorter articles as opposed to longer ones, since we think they [students] are more likely to read it. We chose to do a real variety of the types of readings, so there are critical essays; there are research pieces; there are personal narratives. It appeals to different styles of the students. There are all sorts of little sidebars that have factual information that has activities for students to do to get them thinking about things. (The first interview with the instructor, Oct. 7, 2004)

According to course document, the content of course lectures was structured around the topics addressed in the first textbook. The book contained a total of 13 chapters, and was an anthology-type of book, in which the introductory framework essays of each chapter was presented first, followed by seven to nine short essay articles written by different feminists. The instructor during the interview asserted that reading the textbook and listening to the diversity of feminist voices included in the textbook would help students acquire a "theoretical framework" of knowledge and understand general issues of the feminist perspective. The instructor stated that even though she did not agree with some of feminist viewpoints raised in some essay articles, the instructor emphasized that it was also important for students to know

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[2] The other faculty, other than the current instructor, was teaching the same course in the traditional classroom setting at the same time.

that "feminists didn't agree on all the issues". The second textbook appeared to be used only as an additional resource and reference to facilitate students in carrying out their required tasks. For example, in the activism project, the instructor required students to include reference to ideas discussed in the book.

The other assisted learning strategy, structured task, was reflected on the implementation and requirement of Readings File assignment. As mentioned above, each week students were required to read three essay articles and then complete three readings file cards accordingly; students were required to fill in the seven predetermined elements in each card. According to the instructor, the structured task helped students to reinforce their focus on reading the articles on the textbook. She explained how the activity had helped students in the last interview:

> Part of what it [readings file card] helps is it makes them [students] do the reading. If you don't have something that structured, they just skip the readings or they skim it. This way, they may still skim, but I know they have had to read it closely enough. (The fourth interview with the instructor, Jan. 7, 2005)

3. Writing to Learn

"Writing to learn" was a strategy the instructor deliberately employed to help students develop their thinking processes and learn the course content. The idea of writing to learn, according to the instructor, focused on students' *learning process*, as opposed to *learning product*. The instructor described how she came up with this instructional approach in her second interview:

> I got that [writing to learn] from one of our writing professors. The idea is not to look at it [students' works] as a finished product, but to look and see how are they [students] processing material. (The second interview with the instructor, Nov. 1, 2004)

According to course document, this learning strategy was embodied in the Learning Activities Journal assignment. In the assignment, students were required to engage in learning activities provided on the website first, and then write reflection on their personal experiences based on what they had learned from the activity they were engaged in. The instructor stated that expressing thoughts in words, rather than providing right-wrong answers, would help students view things differently. The writing to learn strategy also reflected on the length required in the journal. The instructor expected students to write at least one page for each journal because she believed that the more students wrote, the more they would process the materials, and the more they would learn. She emphasized that the length was an important part in the writing activity in that it was "a process journal, and not a product journal".

Students' Reaction to Experiences with Journal and Readings Activities

When students in the interview were asked which of the class activities they thought had helped them understand the course content most and how it helped, students in general expressed positive learning experiences with both the readings and journal assignments. For example, Student B, in her first email interview, wrote:

> Doing the journal enteries [*sic*] really helps me to understand the content
> better. I have a hard time with reading comprehension, so for me just reading
> a chapter doesn't really help me. When doing a journal entry i have to really
> think about the subject matter, and put it into my own words. Also the reading
> entries help in the same way. It helps me to keep my focus on the important
> parts of each reading. (Email correspondence from Student B, received Nov. 1,
> 2004)

Similarly, Student S in her first email correspondence stated that the learning journal activity was the most useful assignment because it involved "hands-on" experience in the learning process, such as conducting an interview and then writing a journal about the interview experiences. Student S also expressed that the readings file format had helped her engage in the readings deeper during the face-to-face interview held at the end of term. She explained that the reading structure had forced her to "pull out those important parts and go through it", which she would otherwise "just read through it and not have to do anything with it". Student A's response to the question was that she thought she learned most from the readings because of "a lot of topics on the women's movement," though she mentioned that she disagreed with some authors who addressed points of view that conflicted with hers, such as those related to religion. Student L, in her first email interview, expressed that the journal assignment had helped her learn the course subject, whereas the readings assignment had not. She wrote:

> The Journal allowed me to express my thoughts on the subject and really learn about what I was reading. It gave me a place to really think through the material I had just read and the quiz or activity I had just done. I also enjoy the reading. The reading file cards I don't really feel express the essence of the readings. They don't really capture the readings. (The first email interview with Student L, Nov. 1, 2004)

However, in the last wrap-up email interview, when Student L was asked in retrospect which class activities had helped her learn the course content most, she responded with a different answer. She claimed that "the readings for sure" were the most helpful, though she did not respond to the follow-up email asking her for an explanation. What levels of thinking the four studied cases were engaged in the

learning activities and thus demonstrated in their assignments are described in the *Analysis of Student Performance* section on page 216.

<u>The Instructor's Response to Students' Comments</u>

The instructor in her third interview also expressed that students were doing well on both readings and journal exercise, particularly the readings activity. Similar comments were made in the instructor's last interview, though she commented that there was room for students to improve their journal works. She stated:

> I think they did the best job on the reading files, and it is probably because those are so structured...They did pretty well on the journal activities, though I think they are basically too lazy to really write and dig. It is kind of like they want to write the minimum, answer what they perceive as the question and sort of move on... I am cynical about it. I think they are just lazy. They have so many other competing demands and they don't want to do this. (The fourth interview with the instructor, Jan. 7, 2005)

It appeared that thinking and learning processes students were engaged in did not quite meet the instructor's initial expectation.

4. Experiential Learning

Experiential learning was one of the strategies that the instructor emphasized in teaching the course. Implementation of this strategy was illustrated in some of weekly learning activities. For example, in the second week of the class students were required to personally interview five people in their local community, investigating people's viewpoint toward "the 'F' (feminist) word". The instructor in the first interview stated that she expected acting would enhance students'

understanding and thinking about the knowledge they acquired from the readings, and vice verse.

> The readings are where they kind of get the basic information. Then I try to make the course pretty experiential so that they [students] learn it by discovering it for themselves. In some ways it is very inductive on that end of things, so they go out and they do these activities. Then they think through what does that mean. They go and, for example, interview five friends about what feminism is. They have to come back and reflect on that. What they discover is that people really don't know what feminism is and they have a lot of misconceptions. Then they begin to think why do people hold these misconceptions of feminism. Very often that leads to them to think how can we go about changing this perception about feminism... It is both reading and acting at the same time as they move through the course. (The first interview with the instructor, Oct. 7, 2004)

In addition to some weekly learning activities, the instructor also embedded the experiential learning approach in the activism project. Because the project also involved the instructor's other instructional strategy, collaborative learning, students' learning experiences with the project is thus described in the following *Collaborative Learning* section.

5. Collaborative Learning

The collaborative learning approach was one other instructional strategy practiced in the course that the instructor expected to help students advance their thinking and understanding of the course content. According to the course syllabus, there were two types of course assignments that required students to engage in collaborative learning - Discussion Questions and the Activism Project and Research Paper. Each of the learning activities is described respectively below.

a) Discussion Questions

As mentioned in the *Instructional Design* section on page 124, the instructor

expected students to engage in frequent discussions, exchange ideas, and share

learning experiences via the Discussion Board on a weekly basis. During the first

interview with the instructor, the instructor stressed that the purpose of providing

students with the discussion activity was for them to commit through "in-depth"

discussion. She stated:

> I try to be really clear on the discussion in the syllabus, and I also sent them
> that email that the discussion board is really for in-depth thorough discussions,
> and that is what I am looking for. (The first interview with the instructor, Oct.
> 7, 2004)

The instructor also mentioned that she expected students to make multiple postings

per question during the week, including posting their own statements and responding

to messages posted by classmates. However, the online observation showed that the

instructor herself did not appear to become involved in any of students' discussions.

This question was raised to the instructor in her next interview regarding whether she

attempted to participate in moderating students' discussions. The instructor

responded:

> I did [participated] more when I first did it [taught the course], but it is more
> rare now, because I don't want my voice to have more weight... I felt since I
> am the instructor, it sort of puts an end to the conversation, like here is the
> final answer, here is the authoritative answer. I do intervene if they have a
> question and they really don't know where the information is, or they are not
> sure. Then I will put something in. (The second interview with the instructor,
> Nov. 1, 2004)

The online observation data revealed that throughout the term, the instructor never

got involved in the discussion activity. In addition, students did not seem enthusiastic

at participating in the activity, either. Table 4-3 lists the number of students who participated in the discussions, the number of messages posted, messages posted on time, and messages posted after due date. These discussion messages were broken down by week, by chapter, and then by question. In the table if the number of messages posted (column 3) is greater than the number of students who participated (column 2), it means that there was at least one student who posted messages more than one entry for that particular question (Q). As shown in the table, there are only four questions out of the total 18 questions (Q1 in Chapter 1, Q1 in Chapter 2, Q1 in Chapter 4, and Q1 in Chapter 9) that multiple entries were made by the same individual, disclosing that students did not post their messages as well as respond to each question as frequently as required. On only four questions (Q2 in Chapter 1, Q1, Q2, and Q3 in Chapter 7), all students posted their statement on time. Description of cognitive levels and knowledge categories in which students were engaged during this discussion activity is provided in the *Analysis of Student Performance* section.

Table 4-3. Summary of students' participation in Discussion Board

Course Schedule/ Statistical Counts	# of Students Participating	# of Messages Posted	Message Posted on Time	Message Posted Past Due Date
Week 1				
Chapter 1 Q1	5	8	7	1
Q2	4	4	4	0
Week 2				
Chapter 2 Q1	5	8	7	1
Week 3				
Chapter 3 Q1	2	2	0	2
Q2	1	1	0	1
Chapter 4 Q1	3	4	3	1
Week 4:				
Chapter 5 Q1	3	3	2	1
Q2	3	3	2	1
Chapter 6 Q1	3	3	2	1
Week 5				
Chapter 7 Q1	1	1	1	0
Q2	2	2	2	0
Q3	2	2	2	0
Chapter 8 Q1	5	5	4	1
Week 6				
Chapter 9 Q1	5	6	2	4
Week 7				
Chapter 10 Q1	4	4	2	2
Week 8				
Chapter 11 Q1	4	4	3	1
Week 9				
Chapter 12 Q1	5	5	2	3
Q2	0	0	0	0
Week 10				
Chapter 13 Q1	4	4	3	1

Students' Reaction to Experiences with Discussion Questions Activity

Students' learning experiences in the Discussion Questions activity appeared

less significant compared to their experiences with Journal and Readings activities.

Student B in her first email interview stated that she enjoyed the opportunity of

viewing "another side of a subject" from other students' postings. However, she claimed that the activity did not help her learn the course content. Student S, like Student B, also appreciated the opportunity of viewing "what other people are thinking and how they are interpreting the same material" in her first email interview. However, contrary to Student B, she asserted that seeing others' insight into questions helped her learn the course subject. Nonetheless, in her following email, she expressed her frustration with this instructional activity when she was asked whether and how the interaction with peers helped her learned the course content. She stated that even though they were required to engage in multiple postings per week, "the rest of the class usually doesn't post until the last minute", which in her opinion made the interaction harder.

Student A considered the discussion activity a place for them to "agree or disagree or talk a little bit more of what you think", while acknowledging that she herself wasn't really actively participating in the task. She, in her second face-to-face interview, was asked why there did not seem to have much disagreement presented in students' discussions. Student A's response was:

> Not too many disagreement, because I think for the most part she [the instructor] fixes those questions to where – well.. There was just one, like I think the one from "Do you think there is a just future?" and then people talked about it...I think that people did that before reading the readings, the discussion, so maybe they just gave their knowledge. In a way we wrote about way different type of things, or different type of views... If there was a discussion question put up there that said, "Do you agree that witchcraft and Christianity," then that is when I think people would battle. (The second face-to-face interview with Student A, Dec. 3, 2004)

"Witchcraft and Christianity" that Student A referred to was one of the articles included at the end of Chapter 12 in the textbook. In the article the author considered

"Witchcraft, 'the craft of the wise,' is the last remnant in the west of the time of

Women's strength and power." In Student A's opinion, in order for some debates

and arguments to take place, disputable issues must be provided first. Students'

reaction in this regard was further followed up by an emerging interview question in

which students were asked whether allowing students to take turns leading the

weekly discussion questions would impose greater benefit to students. Student A in

her final face-to-face interview responded that she liked the current type of learning

style in which "something is already set up for you". Student A further stated that in

order for the described type of discussion to take place, the person in charge must be

"better to have knowledge or kind of know a little bit more" of the subject. However,

she commented that the idea was "pretty neat", even though she stated that she never

thought of it before.

Student L also expressed mixed feeling toward this learning approach. In her

last wrap-up email interview, she stated that the learning method "could be good or

bad" depending upon "which students get to decide." She wondered whether it

would be the "most effective learning" because of the topic students might choose.

Student S' reaction to this question was clearly negative. Her response and reasoning

were:

> No, I don't think it is a great idea, because the student doesn't know what is
> important or pertinent to learn. We have the teacher who has been going to
> school for a long time and who has studied this in college to teach it. She is a
> professional at it, and she knows the important information that we should be
> learning. (The final face-to-face interview with Student S, Dec. 6, 2004)

Not only was the concept of student-centered learning not well received by students, the interaction required in the class also required some new online experiences to students. When students were asked to compare instructional style between the current course and other courses they were taking or had taken before, most claimed that the current course was their first online course that demanded interaction with peers. Student S made the following statements in response to the question in her last round of interview:

> [The course] makes you realize that you have to interact to get the grade. In some classes they say, you know, you need to participate for a grade, but you are never forced to do it, so you get a worse grade because you are never forced to do it. (The last face-to-face interview with Student S, Dec. 6, 2004)

Similarly, Student A in her last interview also reported that the current course required more interaction than her other online course. In the other course she stated that she did not have an opportunity to share her thoughts or solicit others' help when needed.

The Instructor's Response to Students' Engagement in the Activity

The question regarding the paucity of different viewpoints that were posted in the discussion board was also raised in the second interview with the instructor. The instructor's reaction to the issue was:

> I think because people come into Women's Studies knowing what it is, that students sort of self select out if they are going to be in a lot of disagreement... In the course, they are already sort of interested by virtue of the fact that they are in here. There are a lot of other DPD courses they can take. I think if they have an aversion to feminism, they just go ahead and take something else. (The second interview with the instructor, Nov. 1, 2004)

The instructor was also asked about students' lack of engagement in this discussion activity. The instructor responded that engaging students in the online activity was a big challenge not only in the past terms, but also in the current term. When asked whether increasing the weight of the activity would improve students' participation, the instructor expressed that the current weight, ten percent of the final score, could have prevented students from earning an A if they did not participate. The instructor also mentioned that she had discovered some students' lack of engagement in the task was associated with their "own personality and learning style." Increasing the weight, in the instructor's opinion, might not help to boost students' enthusiasm at participating in the activity. In her last interview, the instructor was also asked whether she had any strategy to deal with the situation in the future. Because the time the last interview took place, a new term had begun, the instructor answered this question by sharing what she was implementing in that new term:

> I changed the discussion boards so that they have to do the three postings per question and I was very explicit about it. They must expand on the conversation. This time I am going to watch them really carefully, especially like the first couple and if they start that, "Oh, great idea," and expect me to count that as a posting, they are going to get a little message back, "That really doesn't expand the conversation." (The fourth interview with the instructor, Jan. 7, 2005)

The reinforcement the instructor described seemed similar to what was specified in the current term. In addition, in the new term, the weight of the discussion activity, according to the instructor, remained ten percent in students' final grade.

b) The Activism Project and Research Paper

According to the instructor, the course session in this study was her first time implementing the project that demanded students' collaborative effort. The instructor in her first interview stated that in the past terms, students planned and accomplished the task individually. The instructor mentioned that she had been interested in the past in experimenting with requiring the project be accomplished in groups. Not until she was "motivated" by this study, she stated did she finally put her thought into action. According to the course syllabus, the instructor expected students to learn and act together on the feminist issue each group selected. The instructor also expected students to explore and share their learning experiences with their peers through presenting and discussing their works on the discussion forum. In the same interview, the instructor described the kind of learning community she had in mind as a result of engaging students in the project:

> ...The other thing [other than journal and readings activities] I've tried to do, that you need in distance ed [education], is to expand the idea of a learning community so it also becomes the community that the students live in. A lot of the activities force them to interact in their own communities, and very often it is in ways that are probably kind of consciousness raising for the people around them... It sort of broadens the impact of it, because you may have this one student who is living out in Coos Bay who is suddenly doing all this stuff that engages other people in Coos Bay in what is going on in this course. Then ideally, when they have done those things, very often they will report back on the discussion board, so the other students will hear about, "Well, when I did this in Coos Bay, this happened." Another student will say, "In Bend, it was this way." Another students may be, "Well, down here in California, this happened." It becomes kind of a larger learning community. (The first interview with the instructor, Oct. 7, 2004)

A learning community to the instructor was not only limited to the within-class environment, but it also expanded to places where students lived.

Students' Reaction to Experiences with the Activism Project Activity

Students' learning experiences with the project was first revealed in the

interview question in which students were asked how often they interacted with their

peers and how the interaction helped them learn the course content. Student S,

assigned to Group 1, in her second email interview indicated that she only contacted

one classmate via email once or twice a week. Student S stated that the purpose of

their contact was mainly for discussing the group project. In the following interview

correspondence, Student S was specifically asked to describe *how* the discussion

between her and the other student was undertaken. She replied:

> Basically one of us will have an idea and then we will email it to the other and
> ask for their feedback and thoughts. But since we are in need of lots of ideas,
> we usually just say "that sounds great" and move on from there. It's just kind
> of one person at a time taking the initiative. (The third email interview with
> Student S, Nov. 13, 2004)

In the same set of follow-up questions, Student S was also asked to describe how

they *negotiated* with each other should there be any discrepancy in their opinions

and/or ideas. Student S responded:

> We've never had a disagreement, because as I said before we are strapped for
> ideas only being a group of two, so we will take whatever we can get. Pretty
> much, any idea is a good idea. (The third email interview with Student S,
> received Nov. 13, 2004)

Similarly Student L, assigned to Group 2, reported that the main reason she

interacted with classmates was to complete the project. Although Student L in her

second email interview stated that her group members interacted with one another

frequently, she claimed that the interaction did not help her study the course subject.

She explained that most of their exchanges via e-mail and voicemail were about what each person needed to get the project finished. Student B, assigned to the same group as Student L, expressed the same experience as Student L did in her second email interview. She mentioned that her group interacted as often as once a week, yet frequent interaction with classmates did not help her learn the course content. She stated that, other than talking to group members via phone, she and one of the group members also met face to face to discuss the project. Then the group member would email other members to make sure all four of them could be on the same page. In the following email interview, a follow-up question was included asking Student B *why* interaction with peers did not help her learn the course content. She explained:

> Peer interaction doesn't really have an effect for me in this class, because we are basically working on our own and putting all the info together. I know I neet [*sic*] the other girl in my class, but we still do our own things. Also when we do interact, we talk about what needs to be done, but not really discuss the topic of our project and voice our opinions. Therefore, I could do everything we do in a group on my own; except it is nice to not have to do all the work by myself. (The third email interview with Student B, received on Nov. 12, 2004)

According to email exchanges collected, "the other girl" Student B referred to was Student A who was also assigned in Group 2. Student A in her first interview also mentioned that she communicated with two of her group members (Student B and Student L) often. Although she did not answer directly whether interacting with peers helped her learn the course content or not, she did mention that most of her effort spent on the project was to "coordinate" the group.

In addition to interaction experiences, students were also asked to reflect on what they had learned from being engaged in the activism project at the end-of-term

wrap-up interview. According to data collected from discussion board and artifacts students submitted, the project topics that Group 1 and Group 2 selected were "Women and HIV/AIDS" and "Date/Acquaintance Rape" respectively. During the last face-to-face interview with Student A, Student A was asked how her group came up with the research topic, Date/Acquaintance Rape. Student A explained that it was actually her idea of selecting the topic. She mentioned that her idea of choosing the topic was inspired by reading a piece of news in a newspaper, in which a rape incident was reported. She explained that the media in general was prone to "blaming the victim", rather than objectively judging the truth, which she argued should be left to the subjects involved in the incident. "Blaming the victim" thus intrigued her interest in investigating this issue further, added Student A. As to what she had learned from devoting herself to the project, her response was:

> I think I learned more about the topic itself in college campuses... it is kind of opening me to a greater think of mind. Right now my mind was set as just this is wrong, this is right, this is wrong, this is right, this person is right, this person is wrong. Now it is open because people have reasoning behind what they do. Obviously if they show me their reason, I may not believe them, but I might think more for them than the other people. (The second interview with Student A, Dec. 3, 2004)

A more open-minded mindset toward judging things was what Student A claimed she had learned from engaging in the project. However, Student A noted that the project was "just around one topic" among many other feminist issues she had learned from the course. Student S also made a similar comment in her last interview. She stated that the AIDS project she had been working on was only "a very small

portion of what is in the book." When she was further asked what she had specifically learned from the project, she replied:

> That you can't really depend on other people. If you want it, you have to do it yourself. You have to do the research and you have to get it done. (The face-to-face interview with Student S, Dec. 6, 2004)

The comments Student S made above, based on data gathered from email exchanges between her and the instructor as well as discussion board postings, appeared to come from frustration she had endured while attempting to contact her group members but not being able to achieve so. For example, she was confused about who would be the active members participating in the project in her group even in the seventh week of the term. The online observation data revealed that most group members assigned to Group 1 were those who never showed up in the class. Student S and Student NP-X turned out to be the only two members remaining active in the project. However, Student S stated that the collaborative effort between her and her only other group member eventually fell apart because she was unable to get hold of her teammate at the later stage of the term. According to the online records, Group 1 ended up with accomplishing and submitting the project report individually.

Student L expressed similar experiences of confusion and frustration with group contact. In her fourth email interview sent in the eighth week of the term, Student L wrote that she still had no idea who was in her group. In addition, she stated that "it was really hard to get hold of people at first" because not everyone posted their information to the discussion forum assigned to the group. She also mentioned that her group had trouble contacting the fourth student, who appeared to

be Student NP-Y. Based on online observations, Student NP-Y began her

participation in class activities in the sixth week of the term. However, online

observations also revealed that Group 2 completed and turned in their final group

report on time. When Student L was asked what and how she had learned from the

project, her irrelevant answer was "I still don't like group work. It [was] difficult to

coordinate and get the job done." She also mentioned that "The distance didn't help

the project."

According to discussion statements posted on the discussion forum, Student A

actually revealed her concern of the group-based project in the very beginning of the

class. In the second discussion forum, in which students could address items related

to the class in general, Student A made an entry reminding the class the deadline of

some coming up project tasks, and asking whoever belonged to the same group to

contact her. Yet her early concern with the project did not seem to alleviate her

burden in the project. In the last interview with Student A, she described her

experiences and frustration with coordinating the project as follows.

> I think it was just when you are taking an online course, you are going to be
> talking to people that are not even in your college, but the communication
> was just stressful. It is different because you don't know their numbers and
> you would email them. They wouldn't give you numbers. You are
> expecting them to email you, and then they never emailed you or they
> emailed you too late. It was kind of like I offered everything; I gave them
> my email number, my phone number, my cell phone number. They were
> calling me sometimes, but I never got their numbers. (The second interview
> with Student A, Dec. 3, 2004)

She further added:

> ...everything is always like back to me, back to me. I kind of wanted it to be
> more of a group effort, and it didn't get to be like that... I did it all by myself.
> (The second interview with Student A, Dec. 3, 2004)

The "did it all by myself" remark, based on email exchanges gathered, appeared to

consist of selecting a research topic for the group, contacting and relaying messages

to members, pushing members to submit assigned tasks to her, covering up tasks that

group members failed to accomplish, contacting and requesting information from

outside organizations, developing a Spanish version of group pamphlets to be

delivered to the public, collecting and organizing individual reports and photos for

the final works, generating a PowerPoint file alone, and posting the final report on

the course website. Student A was then asked what she would do differently if she

had an opportunity to redo the whole project again. She reflected:

> If we did the whole thing again, I would have to really emphasize that at the
> end I am going to put the PowerPoint presentation together, then maybe there
> needs to be an outline of just that. OK, reports are due by this date.
> Everybody give me your feedback by this date. Discuss to me something each
> day. Tell me your part. Send me your stuff, and that way we can build the
> PowerPoint presentation. I don't think that outline was really set. The outline
> for the activism project was set, what we were going to write about, but not
> the outline of how we were going to communicate. So that is probably one
> that we should have established. (The second interview with Student A, Dec. 3,
> 2004)

Establishing an outline for the content of tasks, rather than an outline for deadline of

the tasks, was what Student A claimed she would do differently providing she were

to do the project all over again.

The Instructor's Response to Students' Comments

Students' frustration with the project was discussed with the instructor in the last interview. Acknowledging awareness of the situation, the instructor explained what she thought might have caused the difficulty of implementing the project:

> I think part of that is because the groups were so small, so when one person dropped out, suddenly you have two people trying to do everything. Then I think that you had some people who were very responsible. They ended up doing more than their share of the work. Then you had some other people, I think, who were well intentioned, but just didn't have quite the same level of drive. They kind of did the minimum to get their part of the project done, but didn't really get into it. (The fourth interview with the instructor, Jan. 7, 2005)

The instructor, however, emphasized that students probably had learned more than they had realized, such as being more responsible in the student-centered study. She stated:

> I think they probably learned a lot from working together that they may not even know they learned yet, what they learned about the difficulties of working in a group. There is all that kind of stuff. I think it was definitely student-centered. The hard thing there is when students are so used to everything just being sort of handed to them, teacher-centered education, I think it is real hard when it becomes student-centered and they have to take responsibility for their own education. That goes back to that kind of difficulty of them realizing that they have to spend eight to ten hours a week on this class. That's the thing. (The fourth interview with the instructor, Jan. 7, 2005)

As to what the instructor considered could be improved to facilitate the implementation of the group project in the future terms, the instructor's response was:

> Definitely that I am not ready for a group project. I've got to rethink that. If I do it again, I am really going to have to think about how to structure it. I thought I'd given it a lot of structure, but that still didn't work, because even the people who were working hard missed deadlines, and I cut them some slack for that, since it was an experiment on my part. (The fourth interview with the instructor, Jan. 7, 2005)

The instructor added that she had "dropped the group project and went back to the individual project" in the new term she was teaching.

6. Provision of Feedback

As mentioned previously, the instructor in this study claimed that providing students with feedback was one of her tasks facilitating students to develop thinking skills. Collection of feedback mainly relied on forwarded copies originating from the instructor's end. Feedback that was provided but was not forwarded to the researcher was not attained, except a couple forwarded by some students. All the feedback documents gathered throughout the term are listed in Table 4-4. The table, broken down by student, consists of the chapter the feedback was for, the week the assignment was due, and the week the feedback was provided. The missing weeks and chapters in the table indicate unavailable feedback.

Table 4-4. Feedback documents collected

Chapter	Week: Assignment Due	Week: Feedback Provided	Student				
			A	B	L	S	NP-X
2	2	4	J			J	J+R
3 or 4	3	6					J
5 or 6	4	6	R	J+R			J+R
7 or 8	5	6		R	J	J	J
9	6	7				J	
Project	4	4	I		I		
	5	6	G2	G2	G2	G1	G1
	9	11	G2	G2	G2		I

J: Journal assignment   R: Reading assignment   I: Feedback to individual
G1: Feedback to Group 1   G2: Feedback to Group 2

Request for acquiring copies of feedback that was absent in the table was made to both the instructor and students. No more were collected. Therefore, the description of the instructor's feedback strategy is based on the obtained documents.

During the first interview with the instructor, the instructor was asked to describe the type of feedback she provided to students. The instructor exemplified some feedback that she usually provided students for their Readings and Journal assignments:

> With the journals and the readings and stuff like that, I always email back to them and say, "OK, you are right on target" or "It was a little thin, a little skimpy here. You need to do more of this." I try to keep them pretty up-to-date on if they are missing the mark, especially with the first couple that they do. I say this is absolutely what I am looking for, or all right, think a little deeper, that sort of thing. (The first interview with the instructor, Oct. 7, 2004)

The feedback that the instructor provided students was mostly composed of encouraging, praising statements; for examples, "You're on the right path," "Your readings file responses are excellent," "What you've done is good work and show you're thinking critically," and "Your article for the group project is thought-provoking and has lots of good info in it." In some instance, the instructor also provided students with suggestions, for examples, "You may want to try to expand your journals a bit—dig deeper into your reflections about the activities." The feedback in general was also short, two to seven sentences.

In the second interview with the instructor, the instructor was specifically asked what she meant by "you're thinking critically" that she had provided to one student. The instructor explained that the student was "making the personal connections" to "the broader society outside the classroom". The instructor was also asked to

explain the phrase "dig deeper" she provided to one other student. The instructor

stated that she expected that student to "write more" because she thought students

sometimes "sort of dash off their response". She claimed that if the student would

write more, then the student would take her writing "to another place". The instructor

was further asked whether that student would understand what she meant by the

phrase "dig deeper". The instructor acknowledged that the student might not have

known that. She added "It might have been better to say 'for example'." Two pieces

of feedback collected right after the second interview with the instructor are given

below. Both pieces of feedback were for Chapter 5 assignments.

To Student NP-X

> Hi [Student NP-X]. I'm glad your project intersected with the quiz on HIV.
> Again, you have good ideas but you need to expand them. For example, in this
> assignment you could have explored more of how you think about why
> women are at the particular risk they are--and how that connects to what
> you're learning in the course about power and privilege. Does that make sense?
> (Feedback provided to Student NP-X for Chapter 5 journals, Nov. 1, 2004)

To Student A

> Hi, [Student A]. Your readings for chapter 5/6 look good. Keep up the good
> work identifying the primary themes and raising questions about the readings.
> (Feedback provided to Student A for Chapter 5 readings, Nov. 1, 2004)

Similar to feedback provided for journal and readings assignments, the instructor's

feedback provided in the project also mainly consisted of encouraging, confirming

statements. However, she also made reminders to the groups, for example, "Be sure

to take note of the issues of race and social class as well." The instructor in the

second interview stated that those feedback was mostly "sharing with them [students] some ideas of another class" she had taught earlier.

Students' Reaction to Experiences with the Instructor's Feedback

Students' experiences with the instructor's feedback was disclosed in the responses in which students addressed the interview question regarding how often they interacted with the instructor and how helpful they thought the interaction helped them to learn the course content. Providing/receiving feedback was reported as the major reason of the interaction taking place between the instructor and individual students. Three of the four participants stated that the instructor's feedback was helpful to them, whereas one claimed it did not. Student B was one of the students who thought the instructor's feedback was useful to her. In her second email interview, Student B wrote:

> We [the instructor and Student B] interact once in awhile. Mostly our interaction is when she lets me know about the work I have turned in. Her feedback is helpful and positive. She lets me know what i have done good, and she let me know in the last chapter where I could have expanded my journal entries, and strenghtened [sic] my answer. (The email interview from Student B, Nov. 8, 2004)

In a follow-up email interview, Student B was specifically asked what "expanded journal entries" and "strengthened answer" meant in her previous email. However, Student B never responded to that question.

Student A, during her first face-to-face interview, also stated that the instructor's feedback was "important" to her because the instructor was "the one with the knowledge". She further explained that the instructor's feedback helped her

to know her progress and "what your teacher is thinking of you." She stated the

feedback was to inform students what they did wrong and what they did right.

Making sure whether her works lived up to the instructor's expectation appeared to

be Student A's main concern with the instructor's feedback. Similarly Student S was

also very concerned with her assignments. Student S, in her second email interview,

stated that the instructor's feedback helped her "understand the assignments better".

Student L, however, expressed different opinions from the other three students

regarding the same interview question. In her second email interview when she

responded to the same interview question regarding whether the instructor's

feedback helped her learn the course content, she wrote:

> I'd have to say no. Most of the time the comments are short and there is
> very little interaction after the assignment is done. The comments that
> are made are in regard to the work that was completed. Then it's time
> for comments for the following week. (The second email interview
> from Student L, Nov. 17, 2004)

What students expected from the instructor to help them better prepare their

assignments and better learn the course content is addressed in the following

Assessment Plan section.

7. Assessment Plans

According to the instructor, the assessment plans were part of the instructional

design that related to the learning activities. As described in the *Instructional Design*

section on page 124, the assessment plans were specified in the course syllabus.

However, other than specifications of grading policy for each type of the

assignments, no assessment standards or rubrics were provided. During the first

interview with the instructor, when the instructor was asked what standards she

employed to assess students' assignments in the course, she responded by first

explaining how she evaluated students' journal and readings file assignments. She

stated:

> When I read their learning activities or their reading files, I am not looking to
> see did they give me the right answer, but I am actually looking to see are they
> processing the material. If they are engaged with the material, they get the full
> points for those, even if sometimes what they say may not be completely
> accurate or complete. (The first interview with the instructor, Oct. 7, 2004)

As to the activism project and research paper, the instructor explained that she

assessed the works differently from what she did with the journal and readings

activities. In the project, the instructor expected to see a "finished product" from

students, as opposed to their learning process. She explained:

> "Well, when it comes down to it with a group project, one of the things I've
> decided is if you and I are in the work world and we are given an assignment,
> all our supervisor is going to care to see is the finished product for the client.
> They are not going to care who did what. To some extent, when it comes to a
> group project, I will look at the project. There are some things in this project
> setup that they do individually. I will be able to get on there and see has
> everybody contributed to the discussion, did everybody take part in it. That is
> where they are going to have to take some responsibility themselves, to make
> sure everybody is engaged, to make sure everybody is doing their part. They
> have to divide it up and figure out the ways to do that." (The first interview
> with the instructor, Oct. 7, 2004)

The instructor did not seem concerned with individual effort contributed to the final

product, other than the individual research paper required as part of the project task.

To the instructor, the project was teamwork. Hence, she expected students to be

responsible for completing the tasks as a team. However, to reconcile possible

insufficient effort contributed from slack members in the group, the instructor

mentioned that she allowed students to "fire group members" who did not do their fair share of work.

With respect to the discussion questions assignment undertaken on the discussion board, the instructor stated that she evaluated students by monitoring whether they "contribute something substantial" to the discourse. She explained her grading policy to this assignment during the same interview:

> You have really got to contribute something substantial. Yes, it matters to that extent. I'm not going in and saying, okay, student A is making much better comments than student B that student A is going to get more points for this – not on the discussion, I don't. I do expect that everybody is legitimately contributing. If they are not, then I am going to say something to them, and say, "Alright, you are not going to get points if you are just putting cap up there, basically." (The first interview with the instructor, Oct. 7, 2004)

"Putting cap up there", according to the instructor, referred to students simply stated "I agree" in the discussions.

Due date and time for the above assignments were stated in the course syllabus. However, no late assignment policy was attached. Therefore, the instructor in her first interview was asked about her late assignment policy. The instructor responded to the question by first expressing that she was getting "stricter" in this regard because she found late assignments had become an issue in the course. She exemplified her policy of handling late assignments as follows.

> I am getting stricter about that [late assignment], because I've discovered it becomes such a problem. If a student comes to me and says, "I have this going on. My child is ill," I'm really flexible. I say, "Take a few extra days." The problem is sometimes you have these students who show up week five and go, "Gee, I've been really busy. Sorry I haven't done anything yet." I am getting to the point with them where it is like, "Well, gee, that's too bad, because you've got zeros for all those assignments." I am getting a little stricter about that. (The first interview with the instructor, Oct. 7, 2004)

Nonetheless, the instructor mentioned that she would give students the first week of the class as an adjustment period, so that students could become familiar with the due date mechanism implemented in the course, which was that all weekly assignments were due on Fridays by 4:00 p.m. The instructor emphasized once the week was past, she would post students' grade by the end of each week, and no late assignment would be accepted. The instructor also remarked that by the time students had missed the first week's assignment, they would have lost the opportunity to receive an A in the class. The instructor appeared articulate regarding how she would assess students' performance in each of the four types of assignments, including the late assignment policy, at the beginning of the term. How the instructor carried out her attempted assessment tasks is addressed below.

Implementation of Assessment Plan

According to the grade information posted online, most of the weekly assignments students submitted were credited with full points, regardless of the content and the time of assignments submitted. For instance, students all earned a full point for their discussion questions assignment as long as they ultimately posted something on the discussion forum. Likewise, those who ultimately turned in reading assignments were also credited with full scores. Student B and Student NP-Y both received full scores for all the Journal assignments they submitted as well. Other students also received full credit for most of the journal assignments they turned in. It appeared that students had points deducted off their journal assignments when they only submitted one journal in the week, rather than two as required. Only a small

portion of students' journal assignments were taken off either one twelfth or one sixth of the original scores. As to the group project, Student A received a full score, whereas the other five students earned either five sixths or nine tenths of the total scores. Description of the quality of students' works is provided later in the *Analysis of Student Performance* section.

In the last interview with the instructor, she was specifically asked how she actually assigned points to students' assignments as well as the final course grade. The instructor first explained under what condition that students did not receive a full score in their journal assignments:

> It was either late or there was a part that didn't get done to it. That is usually why they would lose points, if they didn't do some part or if the answers were really, really short. Then they might lose some points, typically because I look at those as writing to learn. I am more looking at are they processing the materials, or are they thinking about it. If they are, I tend to give them the full point on it. (The last interview with the instructor, Jan. 7, 2005)

It appeared that the instructor was inclined to assign students with full credit if they wrote more, in addition to submitting the assignment in time. More detailed description of the instructor's late assignment policy is provided at the end of this section. As to the readings assignment, the instructor stated that she usually assigned full points to students "if they do it", because the assignment was "identifying the article" - the structured elements of the article. How the instructor decided students' grade on group project was described as follows:

> It was the whole; I just looked at the end product, I looked at the individual things and sort of assigned a grade based on what I saw. I gave up on the percentage stuff. Part of it was because it was so hard to figure out who was really doing what. I am getting competing stories about how much is getting done and who is doing it, and all the problems this one ran into. Finally I

> thought, ok, I am just going to look at the final product and give it a grade.
> That is basically what I did. (The last interview with the instructor, Jan. 7,
> 2005)

The "percentage stuff" the instructor mentioned was the percentage each task in the

project was accounted for, such as 25% of the weight assigned to the individual

research paper, and 40% assigned to the final report. As to the writing style required

in constructing the papers and report, which was either MLA (Modern Language

Association) or APA (American Psychological Association) style as specified in the

Assignments section of the course syllabus, the instructor also made a compromise to

that requirement. The instructor stated:

> Anything to do with the project at the end, I threw up my hands and thought
> just give me something I can work with. If they were doing a class doing a
> formal research paper, I am much more picky about that sort of thing. The
> other thing again, and this goes back to them taking responsibility, is if they
> don't know what the MLA or the APA style guide is, they either need to ask
> me or ask somebody in the library. It is not that difficult. (The last interview
> with the instructor, Jan. 7, 2005)

Based on the system records automatically tracking assignment submission

date and time, a checklist was generated to describe students' assignment submission

records. Table 4-5 displays the submission records of each of the six students who

eventually completed the course. In the table, each student's submission records are

broken down into weeks and types of assignments. The cells marked with "x"

indicates assignments were submitted on time, whereas "!" shows late assignments,

and blank means absent assignments.

Table 4-5. On-time vs. late assignments based on online observation

Week	Student / Chapter	Student A			Student B			Student L			Student S			Student NP-X			Student NP-Y		
Assignment →		J	R	D	J	R	D	J	R	D	J	R	D	J	R	D	J	R	D
1	1	x	x	x	x	x	x				x	x	x	x	x	x			!
2	2	x	x	x	x	x		x		x	x	x	x	x	x	x	!	!	!
3	3 or 4	x	x	!	x	x	x				x	x	x	x		x	!		!
4	5 or 6	x	x	x	x	x	x	x	x	x	x	x	x	x	x		!		!
5	7 or 8	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		!	!
6	9	x	x	!	!	!		x	x	x	x	x	x	x	x	!	!	!	!
7	10	x	x	!	!	!		x	x	x	x	x		x	x	x		!	!
8	11	x	x	!	!	!		x	x	x	x	x	x	x	x	x		!	
9	12	!	x	!	!	!		x	x	x	x	x	!		x	x		!	!
10	13	!	x	x	!	!		x	x	x	x	x	x	x	x			!	!
Group Project Individual Paper Final Group Work		!			x			x			x			!			!		
		x			x			x			x			x			x		

J: Journal assignment   x: The assignment was submitted on time
R: Readings assignment   !: The assignment was submitted late
D: Discussion assignment   Blank: The assignment was not submitted

Table 4-5 revealed that Student L was the only student who did not have any record of late assignments, though she did not accomplish all the required assignments. Student NP-Y missed almost every single due date, except the final group work. Student B also turned in all her assignments late starting the sixth week of the class, with the exception of the group project. Although Student A accomplished all the tasks required in the course, she submitted one fourth (eight tasks out of the total of 32) of her assignments late, mostly her discussion questions assignment. Students S also completed most of the required tasks; she only missed one assignment and also submitted one other late. Student NP-X had only one late assignment recorded. However she missed four of the required tasks. Approximately one fourth of the total

instructional tasks (42 out of 164) that students had accomplished in the course were submitted beyond the due date.

The instructor's final measure dealing with late assignment seemed to reflect the grade she assigned to students. As described above, the majority of the assignments students submitted were graded with full scores, regardless of the time the assignments were turned in. Although most of the late assignments were submitted by Student B and Student NP-Y, both received full scores for all assignments they ever submitted, except the group project. During the last interview, the instructor was asked how she reconciled between students' late assignments and their grade. In the case of Student NP-Y, who did not participate in any instructional activities till the end of the term but received a "C" in her final grade, the instructor's explanation was:

> ...that was one of those sort of out of the goodness of my heart, letting her finish... She worked really hard at the end to get it all in, and I thought, okay, I will reward this. (The last interview with the instructor, Jan. 7, 2005)

The instructor seemed to compromise to and accept Student B's late works with similar grace of heart. She stated that "She [Student B] did email me stuff...I did get everything then [by the end of the term]". As to other students, the instructor claimed that most had kept her notified of their late submission in advance. The instructor at end also compared the overall grades that students earned in the current course to those she taught earlier. She noted that the grades in the current class were lower than those she taught before in that there were students receiving Bs, Cs, and Fs in this term. She added that "students normally do really well" in this course.

Students' Reaction to Experiences with Assessment Plan

When students were asked whether the assessment specification and grading

policy provided in the course helped them better prepare/accomplish the required

tasks, students responded that the instruction for the assignment tasks was clearly

provided on the course syllabus. However, when students were further asked whether

they knew how the content/quality of their works would be assessed, all expressed

that they did not have much knowledge in that regard. All also expressed that they

learned to adjust to the assessment standards based on how their first few

assignments were graded. In the last interview, Student S responded to the second

question described above as follows:

> ...She [the instructor] didn't really specify on the quality. I just kind of
> learned from the grades that I was getting. All my grades were really good, so
> I just kept doing what I was doing. It seemed to be okay. (Face-to-face
> interview with Student S, Dec. 6, 2004)

Student B made a similar comment regarding whether she knew how her works

would be assessed. In her fourth email interview, she wrote:

> At the beginning of this class, I wasn't too sure about how my work would be
> graded, but after I had turned in an assignment or two, I then knew what type
> of work the instructor was looking for. (The fourth email correspondence
> from Student B, Nov. 22, 2004)

The way Student L figured out the instructor's assessment standards, according

to her, was to "ask questions". In her fourth email interview, Student L stated that

she and her group members always asked the instructor questions should there be

one. However, Student L also mentioned that the assessment plan in the current

course was no difference from her other courses. She stated:

> Grading is one of those things that you always have to ask questions to know. When we get feedback their [*sic*] is never comments in regards to the grades. In my experience this is also the case in class instruction as well. (The fourth email correspondence from Student L, Nov. 18, 2004

In the last wrap-up email interview, Student L was asked what kind of assessment guidelines would better help her to prepare her assignments BEFORE she turned them in. Her response was:

> I believe the first assignment is always going to be a guessing game. Then you generally get a feel for what they [instructors] want from you and can adjust accordingly. You can ask many questions and hope that your assignment meets what you both had in mind. (The last email correspondence from Student L, Dec. 10, 2004)

Similarly Student A in her end-of-term interview also expressed that the grade the instructor assigned in her assignments must have reflected the instructor's satisfaction with her work. The instructor would otherwise have informed her about what she had done wrong. She also mentioned that in her other online study course, Writing in Business, the instructor was clearer with assessment instruction. Student A was further asked to be more specific with her assertion. Student A stated:

> [In that course] you have to talk about how all the components of writing a business are in that chapter, and then he [the instructor] gives you an example of what exactly he wants you to do, the four thesis statements – it is only four sentences long. You start off by pronouncing who was the author of the book, when it was published, and then you talk about the thesis of the story. Then you talk about involved with the components of [unintelligible], and then from there, what did you learn from it, or something like that. (The second face-to-face interview with Student A, Dec. 3, 2004)

The example Student A described resembled the structure of readings assignment required in the current course. Student A was then asked what the difference between these two assignment specifications was. Her explanation was:

> Well, she [the instructor in the current course] gave me the format, but she never gave me the content. The content, there you go. She gave us the format, but not the content, like this is kind of what it is supposed to look like... Some of them give me hard trouble, but once you see your first grades, then you kind of go from there. (The second face-to-face interview with Student A, Dec. 3, 2004)

A similar remark related to clarity of format of assignments was mentioned by Student S. Student S made the following comment during her face-to-face interview held at the end of the term when she was asked what kind of grading information or assessment guidelines would better help her prepare assignments before she submitted them:

> Maybe just a breakdown of what she [the instructor] is looking for, if she is looking for grammar and punctuation, then that would be so many points. If she is looking for a certain amount of content, that would be so many points. If she is looking for, just the certain things she is looking for. (The face-to-face interview with Student S, Dec. 6, 2004)

Students were also asked about their experiences with late assignment in the final interview. Students were first asked the reasons for turning in assignments late. Various excuses were collected. Student L explained that she had an internet connection problem, and thus missed submitting her assignments in the first few weeks. Student B's explanation was associated with personal issues. Student A stated that she was too caught up with the activism project, so that she barely had time to

work on other assignments. Students were also asked what came about when they submitted their assignments late. Student A in her last interview replied:

> ...even though it [the course] was a priority, sometimes I would run behind. I knew she [the instructor] would accept the work, even though it was late. Other courses, there is no late acceptance of work, or whatever... I think I was on the fourth week and I turned in my homework from the third week, and she accepted it, so we will see. I turned in yesterday, almost everything. I got into all the discussion boards and replied. (The second interview with Student A, Dec. 3, 2004)

The above interview was held in the final week of the term, in which Student A made up and submitted all her late assignments. Student A was further asked whether she ever notified the instructor that she would be turning in her assignments late. She responded:

> No, I didn't. I think she would notice that maybe the activism project took a lot of time for me. I don't know how I did, but I think she should give me credit for the time that I spent on doing that, just trying to get everybody together. That would take me away from my regular studies, because I was the one coordinating everything. (The second interview with Student A, Dec. 3, 2004)

An understanding of her special situation appeared to be what Student A expected from the instructor.

Student S during her end-of-term face-to-face interview also made similar comments about the instructor's leniency toward late assignment. She stated:

> They [online instructors] seem to be a little bit more lenient. They seem to be a little bit more understanding with late assignments, and just the Internet in general, knowing that oftentimes it will shut down or there will be problems when you can't access the things that you need to access. They are very understanding about late assignments and you having problems or questions or anything like that. (The face-to-face interview with Student S, Dec. 6, 2004)

Student S attributed the instructor's understanding with late assignments to the technological side of the online course.

The Instructor's Response to Students' Comments

Comments students made about the format of assignments were discussed with the instructor during her last interview. The instructor's reaction to the comments was that her educational philosophy was to allow students space to be creative, rather than constraining students with some rigid structure, which she claimed to be "a perpetual problem" with students. She stated:

> I want them to have some room to be creative, which may have been part of the problem. They needed more structure, whereas I want to give them room to be creative. I am thinking they are going to turn in these wonderful – you would think after 20 years I would quit being so naïve, but I want them to just dare *[sic]* me. Instead they do the minimum, and I should have been much more structured...
> ... this is a perpetual problem with students... Again, this runs into internal conflicts with my educational philosophy which is giving them room to be creative and experiment and grow and not have them worried about what do I want. .. I don't want to give you every little step. I want you to do the activity and reflect on it. (The fourth interview with the instructor, Jan. 7, 2004)

One other reason the instructor added why she did not intend to provide students with examples for the assignments was because she did not want students to follow the exact example she supplied, though she acknowledged it would probably make things easier by doing so. The instructor was also asked whether students would be familiar with the MLA or APA guide she expected students to use in their writing. The instructor responded:

> God help them if they don't. That is the other piece. It is like, and I know, again, I am being naïve... Somewhere along the way, surely in high school,

they know. I had an MLA style guide when I was in the 10th grade. Surely somebody is teaching – well maybe not teaching them how to write. That is part of it. It is like how far remedial into writing do I have to go before I can even get to the content of my discipline. Part of me is like, this is college... There has to be some minimum preparation level. (The fourth interview with the instructor, Jan. 7, 2004)

The instructor also mentioned that it was not difficult for students to figure out the information via online search, "especially with the web at their fingertips". However, at the end of the topic, the instructor conceded:

I guess, maybe I am an elitist and maybe I am not as non-hierarchical as I would like to believe, because I do think they minimally have to have some preparation and minimally they have to take some responsibility. (The fourth interview with the instructor, Jan. 7, 2004)

Discussion of Findings Associated with Pedagogical Practices

The instructional goals the instructor intended to achieve in the course were twofold: 1) she attempted to help students develop higher-order thinking around the course subject, such as being able to analyze and synthesize how social systems operated, particularly those involving women, and 2) she also expected students to engage in activism in behalf of social justice for women. To the end, the instructor provided students with instructional activities embedded with various teaching strategies, including individual type of learning activities, such as writing journals and completing structured tasks, and collaborative type of learning activities, such as participating in group discussions and accomplishing a group project. However, both the instructor and students reported that the individual mode of instructional activities, particularly the readings file activity, appeared to better help students learn the course content because of the structure of the activity. Although students

expressed positive learning gains with the journal activity, the instructor asserted that there was space for improvement in that students did not elaborate enough to reflect on their personal experiences based on what they had learned from the readings.

The project which students were required to work collaboratively at a distance was a new educational experience to both the instructor and students. Molly, et al. (2000) indicated that the group with higher sense of responsibility and who started the group work earlier tended to achieve higher learning outcomes. Some students in the current study also showed great sense of responsibility to the project tasks at the very early stage of the class. Although one particular student expressed highly stressful and frustrating experiences with coordinating the project, her group eventually did accomplish the project in time, whereas the other group disbanded. Nonetheless, most of students' learning experiences with the project seemed negative due to difficulty of contacting group members and/or unfair share of work borne among members. As a result, the instructor decided not to continue the project on group basis in the future.

The discussion board, a venue for building online learning communities within the class, was one other new learning experience to students. All students stated that the current course was one of the few online courses they had experienced which demanded interaction with peers, which was also counted as part of their final grade. Although most students seemed to appreciate the opportunity of viewing others' thoughts through this learning activity, most were not enthusiastic about contributing to the discourse. The instructor expected students to actively engage in discussions for exchanging their ideas and sharing learning experiences on a weekly basis.

Nevertheless, she herself never got involved in the discussion activity, which was speculated as partially contributing to students' lack of enthusiasm at engaging in the activity. In the future terms, the instructor stated that she would reinforce students' participation in the discussions by requiring students to commit to more frequent interaction with one another. However, the weight she assigned to the activity remained 10% of students' final grade, a relative low weight compared to the other three instructional activities required in the course. Maor (2003) specifically indicated that the instructor in her study assigned 40% of the grade to the discussion activity in order to motivate and sustain students' commitment to the activity. The instructor also assessed students' discourse by both the quantity and the content. The instructor in the current study also expected students to contribute frequent and meaningful discourse to the discussion activity. However, she had always assigned a full credit to those who once participated in the activity regardless of quantity and quality presented and the time the entry was made. Without appropriate moderation and involvement as well as an adequate assessment plan, this particular instructional activity may most likely remain a challenge to the instructor.

In addition to students' lack of engagement in some class activities as expected, dealing with late assignments was the instructor's one other challenge in teaching the course. Although the instructor appeared determined to resolve the late assignment issue at the very beginning of the class, the problem was no by means diminished throughout the term. Some students appeared to take advantage of the instructor's lenient policy, and continued their practice of submitting assignments late. Some researchers suggested that distance instructors remain flexible in delivering distance

courses (Kochtanek & Hein, 2000; Maor, 2003). However, inconsistency between policy specification and actual implementation might impose unfairness to some students, particularly those who followed the initial rule. Appropriate, fair assessment and grading practices were considered important factors in reinforcing students' engagement in class activities (Angeli, et al., 2003; Maor, 2003). Good and fair assessment would also provide students with equal opportunities to excel. Hannafin, et al. (2003) contended that assessment might be the most critical factor affecting the effectiveness of a learning community because it explicitly reflects the extent of importance of associated performance and grading.

Regarding her efforts as a facilitator in the course, the instructor stated that the main task of being a moderator was to facilitate students' learning, particularly in developing higher-order thinking skills. Providing students with feedback for assignments they submitted appeared to be the instructor's main strategy of achieving the goal. Some students asserted that the instructor's feedback did not help them better learn the course subject because it was not elaborate and was usually provided *after* the time it was actually needed. Even though some mentioned that the instructor's feedback was helpful to them, it seemed that the help students claimed was basically related to meeting the instructor's requirement in order to get a good grade, rather than comprehending the course content per se. On the other hand, the instructor's feedback seemed to contain more *encouraging* statements, rather than specifically probing or promoting students' cognitive processing. The instructor' role as a facilitator in this regard appeared less explicit.

When assessing the instructional strategies implemented in the course from the perspective of the seven feminist principles the instructor believed in delivering online feminist courses, it appeared that some principles were more successfully accomplished than some others. For instance, the two principles, *accessible* and *activist*, seemed more successfully achieved in the course. Students participating in the study did experience being a feminist activist in their local community through the accomplishment of the activism project. The course also offered students opportunities to access feminist knowledge and the process of knowledge construction through various resources. On the contrary, *collaborative, student-centered, participatory*, and *non-hierarchical* principles did not seem as successful. Students agonized about their experiences with the collaborative project; they did not appear enthusiastic at participating in communicative, interactive learning; and most retained their conservative attitudes toward the student-centered learning approach. Students also regarded the instructor as the one having the knowledge and the one having the power of deciding their grade, which is also addressed in the following *Social Aspect* section. As to the *empowering* principle, to what extent students had been empowered to develop their voice on behalf of social justice for females was some aspect to be discovered in the future.

Social Aspect

As mentioned in the literature review, the social, psychological aspect of factors played an important role in fostering a learning community in the online

learning environment. Bonk, et al. (2001) suggested the following components be

considered when delivering a web-based course:

- create a friendly and nurturing environment or community feel

- exhibit a generally positive tone

- foster some humor

- display instructor empathy and interpersonal outreach

In this study, the main strategies that the instructor employed to help students build a

learning community appeared to associate with providing welcoming, start-up

message, designing warm-up activities, and remaining frequent contacts with

students which is identified as *social presence* in the following discussion.

Start up. On the first day of the class, the instructor sent the class her first

email (see Appendix 4-3). In addition to a welcoming statement, the instructor stated

her expectations to the course, and briefly introduced the proceeding of the course

and the components of course assignments. Students were also reminded that the

course would be observed by a doctoral student as the student's dissertation. At the

very end of the email, the instructor encouraged students to feel free to contact her

should they have any questions. Most of the messages addressed in the email, except

the fifth and sixth paragraphs, were also posted on the course portal page under the

Announcement component (see Figure 4-1 on page 113).

Warm-up Activities. According to the course document, two instructional

activities appeared to be associated with helping students become familiar with the

course or with peers. Firstly the instructor included eight audio clips in the first week's lecture; each of which contained one student's voice sharing their viewpoint toward feminist and experience with the course they took in some earlier term. One highlighted statement from each audio was presented in text by the side of the associated clip. Examples of the statements are shown below:

"I've been a feminist ever since high school..."

"It concerns me that we [feminists] might go overboard..."

"I wish all my classes were like this..."

In addition to audio clips, the instructor also designed a discussion forum on the Discussion Board, allowing students to introduce themselves to the class, including explaining why they registered in the class, and describing their expectations, fears, and anxiety of taking the course. According to online observation, four students participated in the self-introduction activity, sharing their academic background and some personal information, such as marital status, age, and the number of children some had.

Social Presence. Based on interview data and email messages gathered, the email system appeared to be the only approach that the instructor used to contact students as well as receiving student communication. The instructor, in the first interview, said that she attempted to keep contact with students as frequently as she could:

> I try to email everybody at least once a week. That is my goal. Like I said, when I am out of town, I may not always achieve, because I don't have web access. When I go out of town, I'll send them a note today or tomorrow that

says, "I am going to be out of town. I won't have as much access. It may take me a little longer to respond to you." If suddenly for two weeks they don't hear from me, they know it is not about them, but about my being out of town. (The first Interview with the instructor, Oct. 7, 2004)

One email collected from the instructor also revealed that the instructor had once shared her research agenda with students in Group 1, in which the instructor stated that the project Group 1 was working was "very near and dear to my heart" because she would be the keynote speaker addressing the same topic at an event to be held soon. In two other email messages the instructor delivered her sympathy to some students who either reported to her about having encountered difficulty working on the project or shared with her some personal trauma taking place in the past. In addition to the connection between the instructor and students via the email, it appeared that the instructor also attempted to increase connectivity among students. The collaborative project and the discussion activity on the discussion board were two examples unfolding the instructor's intention in this respect.

Students' Reaction to Interaction with Classmates

When students were asked how important social connection or personal relationship with classmates was to them, students in general stated that connection with other peers in the class was not important, nor was it helpful, particularly not in the online course. Student S in the final face-to-face interview explained that it was hard to know someone without physical contact, such as through the email. She emphasized that if she wanted to develop friendship with others, she might as well register in on-campus courses. Student A considered online course as "independent-

type study", therefore, she thought one might not expect to socialize with others in such learning mode of course. She also mentioned that those who tended to be social might "feel lost" in the online course. Student L, who in the pre-survey claimed herself introvert type of person and preferred individual study, did not think that social interaction with classmates helped her in any regard. She responded to the same question in her third email interview:

> No, these interactions with your peer are short. Most of the course work is learned on your own. By doing the reading and assignments, I actually don't mind it at all. I usually don't like working in groups and this way it is a lot easier to manage. (The third email interview with Student L, received on Nov. 17, 2004)

Similarly, Student B also stated that her connection with peers was limited to project-related communication, rather than social, personal messages.

Students' Reaction to Interaction with the Instructor

Students' reaction to interaction with the instructor varied and seemed to depend upon individual's concern with the grade she might earn. Student S appeared to be one of the students who appreciated frequent contact with the instructor. In the last face-to-face interview, she explained why frequent contact with the instructor was important. She stated:

> The teacher did a really good job of keeping in touch with us, but keeping in constant contact with the teacher, because she is the one that is giving you the grade. She is the one who knows what she wants, so keeping in contact with her I think is best. (The face-to-face interview with Student S, Dec. 6, 2004)

By contrast, Student L did not seem to appreciate the frequent interaction with the instructor. She stated in her second email interview that she and the instructor interacted "about once a week", which occurred when the instructor responded to the assignment she submitted in the past week. However, she wrote that "sometimes the interaction is a little more." Student L also mentioned that taking the online course missed the opportunity of seeing "the passion of the instructor" teaching the course. Student B reported that she and the instructor interacted "once in awhile". Similar to Student L's description, Student B, in her second email interview, stated that most of their interaction was when the instructor "lets me know about the work I have turned in."

Student A appeared to be another student who appreciated frequent contact with the instructor. She stated that she had contacts with the instructor a year prior to the current course when she was deployed overseas and was enrolled in the course then. In her first interview, Student A described her feeling of registering in the same course again:

> When I registered here for school this term, I emailed her again and notified her, "Hey, remember me? I was the one that was in Iraq. I am back on the college campus." She is like, "Welcome back. Thanks for taking my class." I was just like I felt even more welcome, kind of like I was already part of it. (The first interview with Student A, Oct. 28, 2004)

However, Student A's perception of being part of the class at the very beginning of the term did not seem to increase her sense of connecting to the class later on. Student A in the same interview stated that the instructor "travels a lot, so sometimes she doesn't email us back all that often", though she mentioned that the instructor

generally kept everything updated, such as assignment grades. Like Student S, Student A also expressed that it was very important to remain in contact with the instructor because the instructor was "the one with knowledge".

Students' satisfaction with and expectation of the social aspect of the class were more clearly revealed when they were asked what they would do to improve the course in order to better help students learn the material if they were the instructor in the final interview. Acknowledging the course "was pretty well organized", Student A, however, stated that if she were the instructor in the course, she would do the following:

> I would definitely be more in contact, because even though it is an online course, you know, and it is very more independent than [unintelligible], I think the teacher still has to communicate with the students. I think even in the discussion board, even though we might not hear from her from emails or something, she could say something on the discussion board, and she has never done that. (The second face-to-face interview with Student A, Dec. 3, 2004)

The researcher then discussed with Student A the instructor's explanations regarding why the instructor did not intend to get involved in students' discussions, such as not wanting to present an authority voice in the discussion. Student A's response to the explanation was "that's a good one." Even though she appeared to understand the instructor's intention in this regard, she attempted to further explain what she really expected from the instructor:

> On the discussion board, if we were to enter on there – maybe not even that. Maybe if there was another discussion board, like announcements. You know the announcements part? It is the same one that she put on there. So I feel she is not even there. If she would say – my other instructor, he is always putting things there. "OK, this is happening here and here. What do you think of this? I'll be in my room at this time. Good luck, you guys. Have a nice vacation,"

or whatever. He is more in there, and interacts. (The second face-to-face
interview with Student A, Dec. 3, 2004)

According to online observation, the announcement message Student A mentioned

above appeared to remain the same on the course portal page throughout the term,

and was dated "March 17, 2003", several terms prior to the current one. Student S

also emphasized that if she were the instructor, she would frequently contact students

through multiple approaches. She stated:

> I would probably keep in touch with them as much as possible…Email and
> through the discussion board, posting discussions, letting everybody know
> how they are doing and where they standing in the class. Things they could be
> improving on and things they are doing good. That is probably about it. (The
> face-to-face interview with Student S, Dec. 6, 2004)

The Instructor's Response to Students' Comments

In the last interview with the instructor, students' comments regarding

employing multiple approaches, such as the use of the Announcement webpage, to

keep students informed of up-coming events was brought up to the instructor. The

instructor's response to the comment was:

> That is one of those things, and I have the same class, too, it is like you have a
> syllabus that has every due date on it. Actually, I did send them reminders
> about when the paper was due and stuff like that, individual emails, as a
> matter of fact… It is the handholding. I go back and forth on that kind of stuff.
> (The last interview with the instructor, Jan. 7, 2005)

Discussion of Findings Associated with Social Aspect

Some researchers contend that familiarization activities provided at the

beginning of the online course, such as setting up a student's personal web page,

helped students break into the online learning environment (Hill, et al., 2002; Wang, et al., 2003). The instructor in this study also provided students with some warm-up activities to increase students' familiarity with the course and with the peers, including a self-introduction activity and previous students' learning experiences with the course subject. Although not too many students participated in the self-introduction activity, the class seemed to start with a friendly atmosphere. Nevertheless, the friendly environment presented at the beginning of the class did not seem to facilitate or enhance the sense of connectedness among students partly because students involved in the study considered an online course as an independent study in which social relationships were not important or expected.

In addition, the instructor relied solely on the email system as the communication tool to connect students, which also seemed to contribute to students' low sense of social presence in the class. Students appeared to expect multiple contact approaches from the instructor in the course, such as the use of Announcement feature provided in the courseware. Some researchers found that posting and updating announcements was an important infrastructure strategy to build a learning community in the web-based course (Hill, et al., 2002). In the current course, the announcement message posted on the course portal page had never been updated.

Moore (1993) hypothesized that the greater the course structure, the greater the psychological, transactional distance; the greater the learner autonomy, the greater the transactional distance. In this study, both the instructor and students themselves described the current course as a well-structured course. The instructor also expected

students to take full responsibility for their learning, including conducting their own discourse in the discussion forums. Both high course structure and high learner autonomy in the course appeared to increase students' high psychological distance, consistent with the hypotheses in Moore's transactional theory.

Even though the instructor attempted to keep frequent contact with students, it seemed that the purpose of the interaction was mainly related to assignments. Some students also appeared to remain in contact with the instructor again for the assignment related reasons because they thought that the instructor possessed the power of deciding their course grade. The instructor occasionally shared her research agenda with students or offered personal consolation to students in some special cases. However, those practices were conducted privately, so they did not contributed to establishing a social, personal connection among students at the class level. A social, relaxing aspect to the atmosphere in the class did not seem to exist. A number of researchers asserted that psychological, social aspect of practices helped to effectively establish learning communities, such as, culturing humors (Bonk, et al., 2001; Gokhale, 1995), embedded puns and jokes in class discourse (Bonk, et al., 2001), and making intentional spelling errors to ease class tension (Wegerif, 1998). Although students' expectations and maturation might affect their attitudes toward building online learning communities (Gilbert & Driscoll, 2002; Wang, et al., 2003), the instructor's facilitation skill might also be the key to enhancing such learning communities (Gunawardena & Zittle, 1997), particularly in the current course which emphasized the feminist perspective of subject.

Managerial Aspect

Based on interview and email data collected, the instructor's tasks of

facilitating the progress of the class appeared to consist of reminding students of the

due date of up-coming assignments, answering questions students raised, and

informing students of her temporary out-of-touch schedules. As mentioned above,

the instructor attempted to keep contact with students as frequently as possible.

However, the instructor in the first interview stated that traveling, particularly out of

country, sometimes prevented her from performing the routine tasks in a timely

manner:

> I have fallen behind sometimes, especially when, like I traveled in Africa and
> stuff like that, and I would be gone for two weeks and didn't have much web
> access. That was really hard, because I had a lot of students and I was gone.
> That does pose problems, just trying to keep up with it when there are that
> many. (The first Interview with the instructor, Oct. 7, 2004)

Based on some email messages the instructor sent to the class, the instructor's first

travel lasted two weeks from week three to week four of the term, and the second

travel lasted one week in the ninth week of the term. According to the instructor, the

amount of assignments students generated was once a "huge challenge" to her in the

first couple of terms because she assigned students "way too much work" then and it

became "way too much work" for herself to keep up with. However, the instructor

stated that she had learned to assign less homework, as she did in the current term.

Nevertheless, the instructor described that her traveling schedule and some technical

problems encountered still imposed difficulties for her to fulfill routine tasks in time

in the current term. She in the last interview stated:

> One of the things that was hard this term, that was a little different, was because I was traveling so much doing my own research and then I had all those technical problems with the computers I was on, not letting me open up their assignments. I ended up getting, like three weeks behind at one point because I was gone for two and a half weeks and I couldn't get to their assignments. I still tried to communicate and send emails, which I hope I remember to copy, which just basically said, "Out of town. Can't get anything open." I hate that, because they are not getting that immediate feedback. (The last interview with the instructor, Jan. 7, 2005)

The instructor also explained that the current year was "kind of unique" to her because of the research she was engaged in demanded frequent traveling. The instructor was then asked approximately how many hours she set aside for accomplishing the required tasks per week. The instructor responded:

> Let me think. Probably, man, I should have kept up with this, I guess four or five hours a week, by the time you think about responding to emails, reading the assignments, the discussions, doing the feedback, yeah. That would take four or five hours a week. (The last interview with the instructor, Jan. 7, 2005)

The instructor was further asked whether she spent more or less time on teaching this online course, compared to those she taught in the traditional classroom setting before. The instructor stated:

> It [the online course] takes up less prep time, obviously it is less because I don't have to go to class three hours a week, but it does take more time in grading, because I give them more assignments than I would in a regular classroom, because I'm trying to make up for the time they are not in class. I would say it pretty well balances itself out. (The last interview with the instructor, Jan. 7, 2005)

Other than keeping students updated with her personal agenda, sending email to students reminding them of due date of up-coming assignments was one other task the instructor managed. However, the instructor mentioned she only needed to perform the reminder task in the first couple of weeks because by then students

would "kind of get into the rhythm of it." The instructor added that it was the sense

of "taking that responsibility" that students had to learn. However, as reported

previously, late assignments appeared to be a common practice among students in

the course. The instructor seemed frustrated with managing the late assignment issue.

She first showed her frustration in the second interview taking place at the sixth

week of the term, in which she described some students' engagement in class

activities was "off and on". Her feeling of frustration continued in the following

interview held a week and a half later. In the interview when being asked to describe

student performance in the past weeks, the instructor expressed:

> I don't know what is up with them. I just graded the assignments and only
> two people had done their assignments on time. I don't know what is going
> on... They are all a little bit behind on the project. (The third interview with
> the instructor, Nov. 11, 2004)

Her means of dealing with the situation was to send students one more reminder. The

instructor in the meanwhile also regarded the issue as a "perpetual problem" in

distance courses. She stated:

> I am going to send another little note around that says, "OK, you really need to
> be doing this." This is a perpetual problem with distance classes, is the
> students get so absorbed – because most of the time they are living these full-
> time lives doing all this other stuff. They often let this go. In this class it is
> funny, because since it is a small class, it is really showing up. When I have
> 20 people, you don't notice it as much. When you only have a small group to
> begin with, and the participation declines, you really notice it. (The third
> interview with the instructor, Nov. 11, 2004)

Nevertheless, according to the records listed on Table 4-5, late assignment remained

as an issue throughout the term.

Discussion of Findings Associated with Managerial Aspect

The instructor considered some issues she encountered in teaching the course perpetual problems in distance courses, such as students' lack as well as late engagement in the course activities. Some researchers indicated that facilitating an online course, aiming at collaborative, student-centered, constructivist pedagogies, demanded intensive time and effort (Maor, 2003). Some estimated that delivering this type of course might demand two to three times the amount of time needed in teaching a regular classroom course (Kramare, 2003), or even four times more (Kochtaneck and Hein, 2000). However, the instructor teaching the current course stated that she spent on an average four to five hours per week fulfilling all the tasks required, which she claimed was equivalent to the hours she devoted to a traditional classroom course. Because of the text-based nature of online communication, many researchers found that a major portion of time consumed on facilitating collaborative, web-based online course was associated with maintaining the substantial amount of discourse that students generated in the discussion forums (Harmon & Jones, 2000; Maor, 2003). Nevertheless, the instructor in this study did not involve herself in students' discussions in any regard. Her belief in maintaining a high-quality online course was to give students more assignments to study in order to make up the time online students did not have to spend on physically attending the classroom. Hence, she not only required students to commit eight to ten hours of time per week on studying the course, but she also expected students to actively engage in online discussions through the provided discussion questions by themselves. The instructor's research agenda revealed that she was quite dedicated to her research

works as many other instructors at educational institutions are. How to balance time and effort between teaching and researching appeared be a challenge and might as well be a "perpetual" issue in higher education.

Technological Aspect

The technological aspect of issues addressed by Bonk, et al. (2001) was to deal with system-related issues and to assist with user technology, such as diagnosing and clarifying problems encountered. However, the current course was delivered via a university-supported commercial courseware. The university thus provided technology-related support and resources to online courses offered at the university, which relieved much of online instructors' burden of maintaining the system and its related tasks. The technological side of issues discussed in this section is therefore focused on the participants' experiences and reactions. The instructor's and students' perspective toward the technology in relation to the course is addressed respectively. In addition, students' suggestions related to the technology and the instructor's response to students' reaction are also reported. At the end discussion of findings associated with technological aspect is provided.

The Instructor's Perspective. In the first interview with the instructor, she was asked how comfortable she was with the technology. The instructor frankly described her technological proficiency as "bad". She stated that she could perform basic tasks, such as uploading and adding the course documents to the system. But when it involved more comprehensive tasks, the instructor admitted that she would

need some external assistance. She also mentioned that if she had to become the one

maintaining the entire courseware system, it might as well be the end of the online

course. She stated:

> I am so bad with technology. I am getting better, but basically I grade stuff.
> If anything actually needs to be done, especially with the website, I have to
> have [name of a technical person] do it, because I don't know how to do all
> that. It is the basic blackboard stuff, like put up your syllabus or something
> like that, I can do all that stuff. If it gets more complicated... I hired
> somebody, because I have no idea how to do Dreamweaver or any of that sort
> of stuff. Part of it is I just don't have time to learn it, but as long as Distance
> Ed is providing the level of technical support that I need, then that's no
> problem. If it is ever back on me to have to do that stuff, then that will
> probably be the end of the course. I just don't have time to learn that level of
> the technology. (The first interview with the instructor, Oct. 7, 2004)

The instructor added that, fortunately the maintenance task demanded in the course

had not become a burden to her. She mentioned that there had been only occasional

tasks needed to be attending to, including updating web links that were no longer

active and making minor changes to existing activities. Most technological issues

that the instructor encountered, however, were associated with lack of internet access

when she had to travel out of town. In addition, the instructor also mentioned that

sometimes her own laptop computer failed to perform the tasks she attempted to

accomplish, which she claimed had kept her from being on schedule with her

grading tasks.

The instructor did not include statements regarding technical skills required for

taking the course in course documents. Based on the description of instructional

assignments specified in the course syllabus, technical skills involved in completing

the course appeared to relate to being able to navigate and search websites, and being

able to use two software applications: Microsoft WORD and Microsoft PowerPoint.

When the instructor was asked whether students needed to have certain level of

technical skills to participate in the online course, the instructor stated:

> No, what I am hoping is that as they participate, they learn a few more
> technical skills. At one point I had considered – again, this might be a down-
> the-road thing – having students build a web page as part of the course in their
> group project, because I'd like for them to learn technology. There is a lot out
> there about how women typically are behind men in being comfortable with
> technology. I think that would be a good skill. But for a lot of these women,
> especially some of the older returning women who are already in their 40s and
> 50s, it is a good experience just for them to be on Blackboard and learn to
> navigate the course. I think that is a good experience for them. You don't
> have to be any more savvy than I am in order to complete the course
> successfully. (The first Interview with the instructor, Oct. 7, 2004)

The instructor did not require any technological proficiency for taking the course.

Rather, she expected that students, particularly non-traditional ones, could learn

some technical skills from taking the online course. When the instructor was asked

how she dealt with the situation when students encountered technology-related

difficulties, the instructor replied that most students were able to "figure the problem

out pretty quickly". If problems did occur, which went beyond students' ability to

solve, the instructor stated that she would refer students to the technical support

center to seek for assistance. She emphasized that technical-related information and

support were clearly specified in the course document.

The instructor was also asked the differences between teaching the online

course and teaching in a classroom setting based on her experiences. The instructor

stated that the major advantage of teaching face-to-face classes was being able to

"read body language" and "hear intonations", which was entirely absent from the

online course. She added online students needed "a lot more maturity and

responsibility" to be successful because they were not bound to attend the class on a

regular basis. As to the benefits of teaching online courses, the instructor stated that

most online students had more situated life experiences to bring to the class than

traditional students. The instructor in the last interview explained:

> I think for a lot of them [online students], especially for the ones who are not
> here on campus or not traditional students, they have all this other life stuff
> that is going on that they bring to the class and share with each other that
> informs what they are doing. A lot of times for them it is much easier to come
> back and say, "Oh, yeah, I can tell you about sexism in the workplace. Let me
> tell you what happened to me today at work." Whereas student on campus are
> often more insulated from those sorts of things. (The last interview with the
> instructor, Jan. 7, 2005)

The instructor further mentioned that oftentimes students in the Women's Studies

class were women who had been through divorce, or had been victims of domestic

violence, which the instructor asserted brought them into deeper level of thinking on

those issues.

The Students' Perspective. As mentioned earlier, the four studied cases

indicated their technical skills either "average" or "high" in the pre-surveys. Whether

their technical skills affected their participation in the online class activities was one

of the interview questions students were asked. Student S' response to the question

was:

> If you are able to follow instruction and have a good working computer then
> you should be ok with limited computer skills. I did have a few questions as I
> went along, but eventually I was able to figure it out. For the most part it just
> requires a lot of emailing and using Blackboard. If someone were completely
> unfamiliar with Blackboard, I would suggest having someone give them an
> orientation of it. (The third email interview with Student S, received on Nov.
> 13, 2004)

Student A also made a similar comment about an orientation session. Although claiming herself "actually got familiarized with Blackboard" prior to the class, Student A in her first face-to-face interview stated that "There are a lot of things that are hiding" in the course web. She emphasized that students must be familiarized with Blackboard in order to effectively engage in the course activities. Student L, asserting her technical level "high", reported that it took her a while to figure out her group members' email information. The information Student L referred to was actually posted under the sixth component of the course document, Groups. A follow-up question was emailed to Student L asking her what she would suggest to resolve such issues. Her suggestion was to employ some synchronous communication tool, such as Instant Messenger, an internet virtual chat platform. Student L regarded a more timely communication would help to improve the communication process among peers.

Students' attitudes and perceptions toward the technology were further revealed when they were asked how the teaching/instructional style of this online course differed from those they took before, including traditional face-to-face courses and other distance courses. Student S replied that the teaching style of the courses she took seemed to be generally the same, such as giving students weekly assignments and having weekly discussion. However, Student S expressed that she enjoyed the email communication approach employed in this online course. She stated in her first email interview:

> I enjoy this [course] because our only form of communication is email, so
> while I never actually meet the teacher...I do email her often and I don't feel
> like I am 'bothering' her or sending her too many emails when i email her all

the time with my questions or comments, because I know that this is our only
form of communication so it's ok. It almost feels more personal to me because
I am able to get her undivided attention through emails where in normal class
we would be in a huge lecture hall and it would be more difficult to get some
of her time. (The first email interview from Student S, received on Oct. 26,
2004)

Student L did not answer the question directly. However, she wrote in her first email

interview that the asynchronous format of the course allowed her to "think things

through for herself a little more". A follow-up email was sent to her asking what she

meant by that phrase. She replied in her following email interview:

Here [the online course] I don't have someone quickly responding to the
question, reading etc without having thought through it myself. In my
experience there are always people in classes that try to be "right" and jump at
every opportunity to do so and if you tend to be quieter you don't get to
express yourself. This allows you to be vocal and have thought through the
assignments. (The second email correspondence from Student L, received on
Nov. 5, 2004)

Student B's response to the difference of instructional design between the current

course and other courses was that the current course put the course lectures and

instructional activities all on the website, whereas the other online courses she took

only required students to read textbooks. In the following email interview, Student B

was asked whether the difference she described impacted her learning in any respect.

Student B stated that she found it easier to "have the lecture in front of" her because

sometimes it was hard for her to get onto the computer.

How students prepared themselves to engage in class activities and accomplish

required course tasks in the web-based learning environment was one other interview

question included in the technological category. Students' responses to the question

were similar to those found in a non-web-based courses; for example, getting

mentally ready for doing homework, getting into the reading, and completing the writing. However, in addition to reading the assigned readings, Student L stated that she also prepared herself by reading through others' thoughts on the subject. "Reading others' thoughts" appeared to be one feature that online students could benefit from in the web-based learning environment, while students in the traditional classroom could not.

Students were further asked whether communication via writing affected their learning in the course. It seemed that text-based communication, as opposed to face-to-face oral communication, did not impose any perceivable difficulty to the four students studied. To Student S, expressing her thoughts through writing was a matter of involvement of mind, not much to do with the format of communication per se. She described how she expressed herself via writing during the end-of-term interview:

> Sometimes it can get hard to express your opinions because it gets very hard. Other times, though, I find myself making very lengthy emails or postings, because I just get very involved with what I am saying and I just keep going and going and going. (Face-to-face interview with Student S, Dec. 6, 2004)

Student A stated although written communication took more time, compared to oral communication, it could elicit "more thought". In her first face-to-face interview she described her experience of learning the course via writing was "like having a test every day".

> …it [writing] is more time consuming is what it is, so you put more thought into it. You know you can erase it at the end, and you know you want to get it right. It is kind of like having a test every day. These questions, you want to make sure, if she [the instructor] wants a paragraph, make sure I got the

paragraph, make sure I am doing it correctly. (The first Interview with Student A, Oct. 28, 2004)

Students were also asked whether they had gained any technical skills as a result of taking the course. Student L's response was straightforward: "No. I am very computer literate." Student S, who reported her technical level "average", however, stated that she did learn some skills from participating in the course, such as using the provided text template to type and attach her assignments. As to their belief toward quality of online courses, all four participating students in their pre-survey indicated that they *agreed* or *strongly agreed* that high quality learning could take place without going to a traditional classroom. In the last interviews, students were asked their rationales behind their assertion. Student S' explanation was:

> Because you are still learning the same content, it is all about the content that you are learning and absorbing. You are still given the same textbook and the same material as everybody else. You are just forced to learn it in a different way. All of the material is still there. It is just about how you choose to take it in. It is the exact same learning. It is the exact same material and learning as you would use it in a classroom. (Face-to-face Interview with Student S, Dec. 6, 2004)

Student L provided a similar explanation to Student S' in this account in her last email interview. However, she further mentioned that online learning also allowed students to study based on their own life schedule and in the meanwhile gave many more women the opportunity to receive an education. Student A's rationale was somewhat different from the above two students. She explained:

> ...when you go to a classroom, and you go to lectures, sometimes because of the amount of people in your classrooms, you really don't pay attention or you would rather stay home, so you are not getting the full benefit of everything. In here [online course], it is all there for you, and all you have to do is just do

the research, do the readings, do the homework. That is going to get you caught up, and your knowledge is going to be awesome when you get out of that class, because I am going to know so much about Women's Studies already, just by taking this class. It is covering such a broad, everything... (The first face-to-face Interview with Student A, Oct. 28, 2004)

To Student A, not being distracted from the presence of other students contributed to the high quality of online learning. Furthermore, Student A also emphasized that the amount of assignments required in the course was not only equivalent to the courses she had ever taken, but it also appeared overwhelming to her. Student S also made similar comments as stating that among all the courses she was taking the current course demanded most of her time and effort.

The Instructor's Response to Students' Comments

In the second interview with the instructor, Student L's statement with regard to the idea of using more synchronous approach to improve communication efficiency was brought up to the instructor. The instructor was asked whether she would consider employing the *virtual classroom* feature embedded in the courseware to facilitate students' communication. The instructor expressed that she did not have any knowledge about that particular feature, but would consider using it in the future. Comments students mentioned about having difficulty figuring out "hidden" information and peers' contact information, and offering courseware tutorial session were also raised to the instructor in the last interview. The instructor's reaction to those comments was:

To me that is like if you are going take an online class, you have to take the responsibility of learning the technology. I can't spend half the term teaching

them the technology... They get something from distance ed [education] that tells them, I think, about how Blackboard is set up, or there is a link they can go to that tells them how to do it. It is all up there. The problem is they don't want to take the time to read them. (The last interview with the instructor, Jan. 7, 2005)

Discussion of Findings Associated with Technological Aspect

The four studied cases appeared to show positive attitude toward taking a web-based course delivered entirely via an asynchronous communication approach. Some researchers indicated that the level of technical proficiency was positively associated with students' learning attitude and learning outcomes (Harmon & Jones, 2000). Maor (2003) also claimed that students' high proficiency with the technology was an advantage to both the instructor and students in that the class could devote to studying the course content, rather than hassling with the technical issues. In this study, both the instructor and students seemed to acquire sufficient technological skills to accomplish the assigned tasks. Students also reported that they eventually learned to resolve technical problems they had encountered. Nevertheless, students taking the course tended to expect more training and support around the courseware, whereas the instructor was prone to give students the responsibility in learning the technical skills required.

Students seemed comfortable with communication via the text-based format, and appreciated some nature of the writing mode, such as diminished distraction and attention due to absence of on-site peers, and having more time to elaborate their thoughts. Many researchers have contended that allowing more time for composing responses is an essential element for student to reflect on their thoughts in deeper

level (Kamin, et al. 2001), which appeared to be supported in the current course. The approaches students used to complete their online tasks did not seem to differ from those found in the traditional classroom setting, such as setting the mind and time, engaging in reading, and then conducting the writing. However, some students asserted that being able to view others' ideas online helped them studying the course, which appeared to be some advantage that the regular classroom students did not have.

As far as quality of the online course was concerned, the instructor believed that assigning students more coursework to compensate the hours they were absent from physically attending the class would assure equivalent quality of the online course to an on-campus course. Students also believed that high quality learning could take place without going to traditional classroom courses because they argued that the content and materials delivered in the online course and the amount of instructional tasks demanded in such course were by no means less than those required in a regular classroom course. Some students even commented that the overall coursework assigned in the course was overwhelming.

One of the disadvantages students reported about the technological side of the web-based course was the use of the web itself. Although the course document and content archived on the web were available to the user anytime and anywhere, the requirement of the use of a computer for accessing the materials posted on the web might in the meantime impose some obstacle to the user, particularly when the tool was not handy or ready for use. In addition, some student suggested that the synchronous form of technological tool be adopted to improve communication

efficiency among distance students, such as some online chat feature. In the study conducted by Hill, et al. (2002), availability of multiple communication approaches was reported as one of the effective practices that supported to build online learning communities.

Analysis of Instructional Design and Student Performance

This section analyzes instructional design of the course and students' artifacts collected. The purpose of analyzing instructional design is to describe what instructional objectives and activities were initially intended. Analysis of student performance is to describe learning outcomes students actually demonstrated and thus to disclose to what extent the instructor had fulfilled her attempted instructional objectives. More specifically the analyses describe what cognitive processing levels and knowledge domains the instructor expected students to achieve and what the students actually accomplished. The framework of the revised Taxonomy Table proposed by Anderson, et al. (2001), as described earlier, was employed to conduct the analysis. Discussion of the findings is summarized at the end of each analysis. An overall discussion associated with synthesized results is provided, including the alignment of instructional design and student learning outcomes.

Analysis of Instructional Design

Instructional design consisted of instructional objectives, learning activities, and assessment plans; each of which is discussed respectively below.

Analysis of Objectives. There were eight overarching objectives the instructor intended to achieve in the course (also see Appendix 4-1 Objectives).

- Understand the intersections of gender, race, social class, sexual orientation, age, and ability in women's lives
- Understand the ways systems of inequality are constructed around difference and maintained through ideologies and institutions that reinforce the unequal distribution of social, political, and economic power in the U.S.
- Understand the ways gender is learned and performed in the dominant U.S. society
- Be able to identify and analyze the ways gender, race, social class, sexual orientation, age, and ability shape women's experiences in social institutions
- Be able to identify and analyze ways women have resisted oppression
- Explore their own place and participation in systems of domination and subordination
- Be able to envision strategies for change to bring about social justice for all women
- Engage in activism on behalf of social justice for women

Six verbs were used in the above objectives to describe the cognitive levels the instructor expected students to reach: understand, identify, analyze, explore, envision, and engage. In terms of the Taxonomy Table, *identify* was associated with *remember* category; the verbs, *understand* and *analyze*, fitted exactly in *understand* and *analyze* categories; *engage* in certain activities in this context seemed to imply cognitive level of *apply* category; *explore* was considered *understand* and/or *analyze* criteria; and *envision* appeared to involve *create* level of cognition. The noun part (knowledge domains) of the objectives seemed associated with three categories: *factual* knowledge, e.g. "the ways gender is learned and performed in the dominant U.S. society"; *conceptual* knowledge, e.g. "the intersections of gender, race, social class, sexual orientation, age, and ability in women's lives", and *procedural* knowledge, e.g. (engaging in) "activism on behalf of social justice for women".

As mentioned earlier, the 13 chapters included in the textbook were the major course content delivered to students throughout the term; each chapter consisted of

certain instructional objectives for the associated lecture. Although each chapter contained two to four sub-objectives, those sub-objectives appeared consistent with the overall course objectives. There were a total of 36 sub-objectives included in the 13 chapters, which involved five different verbs: eighteen *understand*, eight *analyze*, six *identify*, three *develop*, and one *envision* (see Table 4-6). Four of the five verbs, understand, analyze, identify, and envision, were identical to those utilized in course objectives. The only different verb used was *develop* (skills through engaging in certain activities), which appeared to also involve the *apply* category, the same as that of the *engage* category described in one of the course objectives. Developing skills might only involve *remembering* or *understanding* certain techniques specified. However, as described earlier, engaging in activism activities personally was one of the instructional goals the instructor expected students to accomplish. Hence, it is reasonable to assume that this type of objectives were associated with the *apply* category as well.

Table 4-6. Thirty-six objectives included in the 13 Chapters

Chapter 1
Objective-1: To understand the history, goals, perspectives and practices of Women Studies as an academic discipline
Objective-2: To develop skills in researching Women Studies on the world wide web
Chapter 2
Objective-1: To understand how systems of privilege and inequality operate in women's lives.
Objective-2: To identify ways class members experience privilege based on gender, race, social class, and sexual
Objective-3: To understand how hate incidents and hate crimes serve to maintain systems of inequality
Chapter 3
Objective-1: To understand how people learn and express gender across differences
Objective-2: To analyze the performance of gender across a variety of cultural manifestations
Objective-3: To understand how fixed notions of gender help to maintain systems of inequality
Chapter 4
Objective-1: To understand how sexuality is socially constructed
Objective-2: To analyze constructions of sexuality in popular culture
Objective-3: To understand how fixed notions of sexuality help maintain systems of inequality
Chapter 5
Objective-1: To understand how gender is embodied
Objective-2: To analyze ways the beauty ideal harms women
Objective-3: To understand how gendered notions of women's bodies contribute to low self-esteem and eating disorders
Objective-4: To understand how gendered notions of women's bodies help maintain systems of inequality
Chapter 6   (The same as Chapter 13)
Chapter 7
Objective-1: To understand and value the variety of families
Objective-2: To analyze the family as a site of gender oppression and resistance to oppression
Objective-3: To analyze power relations in the family in the context of a gendered society
Chapter 8
Objective-1: To understand and value women's unpaid labor in the home
Objective-2: To understand how systems of inequality function in the workplace
Objective-3: To identify changes needed to create a more equitable work situation in both the home and the workplace
Chapter 9
Objective-1: To understand how systems of inequality are expressed and maintained by culture
Objective-2: To analyze systems of inequality at work in various cultural expressions
Objective-3: To identify positive ways women are involved in creating culture
Chapter 10
Objective-1: To understand how violence against women creates and maintains systems of inequality
Objective-2: To identify concerns about violence in one's own life
Objective-3: To understand the cycle of violence
Chapter 11
Objective-1: To understand how systems of inequality work in American law, government, and social policy
Objective-2: To identify myths and realities of Affirmative Action
Objective-3: To analyze connections between inequality and capitalism
Chapter 12
Objective-1: To understand religion as potentially both oppressive and empowering to women
Objective-2: To develop skills for reinterpreting and reconstructing traditions
Objective-3: To analyze the challenge of non-dominant religions to hegemonic Christianity in the U.S.
Chapter 13
Objective-1: To identify how feminist education challenges traditional academic norms
Objective-2: To develop skills for engaging in social and political activism
Objective-3: To envision a just future

Knowledge domains, the noun phrase part, related to these sub-objectives also appeared accordant with those stated in the course objectives, including *factual* knowledge, e.g. understanding "the history, goals, perspectives and practices of Women Studies as an academic discipline" (Objective 1 in Chapter 1); *conceptual* knowledge, e.g. analyzing "ways the beauty ideal harms women" (Objective 2 in Chapter 5); and *procedural* knowledge, e.g. developing skills for "engaging in social and political activism" (Objective 2 in Chapter 13). However, most knowledge domains implied in the objectives did not appear clear cut as involving only one knowledge category. Rather multiple knowledge domains seemed to be associated with the intended objectives. For instance, the factual knowledge, "the history, goals, perspectives and practices of Women's Studies as an academic discipline" also appeared to align with conceptual knowledge embedded in the statement; the conceptual knowledge, "ways the beauty ideal harms women" seemed also involved in procedural knowledge, and the procedural knowledge, "engaging in social and political activism", also required certain extent of understanding of the conceptual knowledge implied in the statement in order to engage in the expected procedural knowledge. In order to understand how some social systems worked, it was necessary to assume that both conceptual and procedural knowledge were needed to fulfill the objectives.

When examining both verbs and nouns as a whole, it appeared that the weight of the objectives was located in the category of *understand conceptual* and *procedural* knowledge, followed by *analyze factual* and *conceptual* knowledge, and then *remember conceptual* and *procedural* knowledge. A few other objectives were

scattered over *understand factual* knowledge, *apply conceptual* and *procedural* knowledge, *analyze procedural* knowledge, and *create conceptual* knowledge. The summary of the analysis of instructional objectives in terms of Taxonomy Table is provided in Table 4-7. In the table, the darker the shade, the heavier the weight of the objectives is. Cells left unshaded, such as A2 and B6, indicate relatively fewer occurrences of objectives stated.

Table 4-7. Analysis of objectives in terms of the Taxonomy Table

Knowledge / Cognition	1 Remember	2 Understand	3 Apply	4 Analyze	5 Evaluate	6 Create
A Factual		C1-Obj-1		C3-Obj-2 C4-Obj-2 C5-Obj-2 C7-Obj-2, -3 C9-Obj-2 C11-Obj-3 C12-Obj-3		
B Conceptual	C2-Obj-2* C8-Ojb-3 C9-Obj-3 C10-Obj-2 C11-Obj-2 C13-Obj-1	C1-Obj-1 C2-Obj-1, -3 C3-Obj-1, -3 C4-Obj-1, -3 C5-Obj-1, -3, -4 C7-Obj-1 C8-Obj-1, -2 C9-Obj-1 C10-Obj-1, -3 C11-Obj-1 C12-Obj-1, -2 C13-Obj-2	C12-Ojb-2 C13-Obj-2	C3-Obj-2 C4-Obj-2 C5-Obj-2 C7-Obj-2, -3 C9-Obj-2 C11-Obj-3 C12-Obj-3		C13-Obj-3
C Procedural	C1-Obj-2 C2-Obj-2 C8-Ojb-3 C9-Obj-3 C13-Obj-1	C1-Ojb-2 C2-Obj-1, -3 C3-Obj-1, -2, -3 C4-Obj-1, -3 C5-Obj-1, -3, -4 C8-Obj-1, -2 C9-Obj-1 C10-Obj-1, -3 C11-Obj-1 C12-Obj-1, -2 C13-Obj-2	C12-Obj-2 C13-Obj-2	C4-Obj-2 C5-Obj-2		
D Meta-Cognitive						

* "C" indicates "Chapter"; "Obj" indicates "Objective"

Analysis of Instructional Activities. According to the course documents, four types of instructional activities were provided to support the achievement of the intended objectives described above, including readings file, learning activity journal, discussion questions, and an activism project and research paper (also see *Instructional Activities* on page 125).

1. Readings File

   Students were required to complete two reading files each week based on the articles they selected from the associated chapter in the textbook. Each of the reading files was composed of seven elements: Author, Reading Title, Thesis, Supporting Arguments, Author's Purpose, Intended Audience, and Questions.

2. Learning Activity Journal

   Students were required to select any two learning activities posted on the websites that were related to the weekly lecture topic. In each lecture there were four to seven learning activities that students could choose from to compose their journals.

3. Discussion Questions

   Students were expected to participate in class discussions via the discussion board, including posting one's own statements and responding to other peers' messages. There was one to three discussion questions included in each week's lecture; students were asked to make multiple entries in each question.

4. Activism Project and Research Paper

   Students were assigned to one of the two groups to conduct an activism project, in which students were required to accomplish an individual research paper, and

generate a group report based on their experiences with designing, developing, and acting on the project.

Although students had options of selecting some preferred activities in the weekly readings and journal assignments, according to the instructor, these activities were designed as a "package" to help students acquire a basic understanding of issues addressed, and then reflect on their personal experiences. The instructor explained in her second interview:

> Each of them [learning activity journals] will kind of have a specific thing I think it will accomplish. Of course, they [students] choose two of them, so they [activities] also have to be set up sort of generally so that no matter which two they [students] do, they are going to get some sense of this is how privilege and power work. The same thing with the articles [readings]. If they have read the framework essay, so they have that understanding of the general issue, then ideally whichever two articles they pick will reinforce what they have read in the framework... It is sort of the whole package... sometimes they have to go into the community and research projects or whatever. The goal is somehow they experience whatever the objective is. They do something that they can connect back. It really works inductively, that they sort of discover the point of the chapter by doing this activity, and then hopefully the readings are reinforcing that. They sort of learn the vocabulary from the readings and then they do this activity. They go, "Oh, okay this is how unearned assets look," for example. (The second interview with the instructor, Nov. 1, 2004)

In the readings activity (Activity R), the instructor provided students with seven elements to follow and complete the task. It appeared that the instructor's intention was to help students understand the main idea of the articles students chose to read. Some of the elements clearly involved recognizing factual knowledge presented in the article, such as recognizing the name of the author and the title of the article. "Recognizing" was a cognitive process in the category *remember*; the author's name and article title were obviously some *factual* Knowledge. Other elements, including thesis, supporting arguments, author's purpose, intended

audience, and questions, appeared to demand relatively higher levels of cognitive processes, such as *understanding*. Knowledge domains associated with these elements could be both *factual* and *conceptual* knowledge. Thus this reading activity was placed in *remember factual* knowledge, and *understand factual* and *conceptual* knowledge, with the focus on *understand conceptual* knowledge.

As to learning activities journal (Activity J), it appeared that there were five common types of learning activities and a few uncommon kinds from which students could choose to construct their learning activity journals. Activities were categorized as a common type if there were at least three activities of the same kind. Each type of activities was analyzed as follows.

1. Activist Profile Activity

   There was one activist profile activity in each of the 13 chapters. Each week students were asked to discuss one activist's contributions, significance of the contribution, and/or challenges the activist had encountered. Website links associated with the activist's profile, and events and/or movements the activist was once engaged in were provided to students. This type of learning activity appeared to mainly demand cognitive processes of *remembering, understanding,* and *analyzing* some *factual* knowledge and *conceptual* knowledge, particularly in *understanding factual* and *conceptual* knowledge.

2. Face-to-Face Activities (interviews, polls, on-site observations)

   Ten learning activities were related to interview, informal poll, or on-spot observations. For example, one activity asked students to take an informal poll in their community about the structure of their family of origin, and then discuss

what their findings led them to surmise about what made a family, and what the impact was of the stereotype of the nuclear family on social policy. This type of learning activities required students to describe their observations and findings, explain how the findings came about, form conclusions, and/or make suggestions for dealing with the issues addressed. It appeared that these learning activities were potentially involved in various combinations of cognitive processing levels and knowledge domains, including *remembering, understanding, applying* and/or *analyzing factual, conceptual* and/or *procedure* knowledge, particularly in *understanding* and *applying conceptual* and *procedural* knowledge.

3. Observational Activities (TV shows, movies, magazines, home site, work place)

   There were a total of 12 activities which asked students to observe some subjects, concepts, or events. For example, one activity required students to watch several episodes of religious programming on television and a few televised worship services, record what messages the shows conveyed regarding race, class, sexual orientation, and/or ability, and reflect whether there were ways in which the shows reinforced the subordination of women and other non-dominant groups. This type of observational activities, similar to Face-to-Face activities described above, also appeared to align with multiple combinations of cognitive processing levels and knowledge categories, composed of *remembering, understanding, applying,* and/or *analyzing factual, conceptual,* and *procedural* knowledge, particularly in *understanding* and *applying conceptual,* and *procedural* knowledge.

4. Discussion of Social Issues and Legislation Activities

Requiring students to discuss social issues and/or related legislative and law practices appeared to be the most common type of learning activity in this category of task. Among the total of 13 activities, one activity asked students to discuss the connection between beauty norms and eating disorders, and reflect how and why the health problems affected women different from men, and what could be done. It seemed that most activities of this kind demanded students to engage in *understanding* and *analyzing factual* and/or *conceptual* knowledge. However, some activities appeared to demand even higher level of cognitive processing. For example, one particular activity, in which students were asked to research their state's divorce laws and reflect on what they could do to challenge the legal system to be more responsive to women and children's needs following divorce, seemed to require students to engage in *creating conceptual* and *procedural* knowledge. One other activity required students to look up their state and see what hate crimes based on sexual orientation occurred, reflect their feeling about those crimes, and comment on whether there should be national hate crime legislation. Making comments on such legislation issue could involve *evaluating conceptual* and *procedural* knowledge associated with the topic, in addition to comprehending the issue.

5. Quiz Activity

There were three learning activities providing students with opportunities to test their knowledge and conceptions toward some feminist issues. The tests were associated with HIV/AIDS, lesbian families, and the names of Goddess. After taking the test, students were asked to report the test result, and reflect on current

systems regarding how to cope with the issues addressed in the test. The cognitive processing levels and knowledge categories involving in this type of activities appeared to involve *remembering, understanding,* and *analyzing factual* and *conceptual* knowledge, particularly in *remembering* and *understanding factual* and *conceptual* knowledge.

6. Others (metaphor, reflection, creation)

There were five unique learning activities; each seemed to engage students in different thinking levels and knowledge categories. Two of them were related to metaphor issues. For example, students were asked to observe words used to describe women and men (e.g. women: passive, nurturing; men: active, strong), and reflect on whether language reinforced stereotypical notions of women and men. This kind of activity was associated with *remembering* and *understanding factual* and *conceptual* knowledge. One learning activity required students to *write* a poem celebrating their own beauty, an activity that was associated with *creating conceptual* and *procedural* knowledge in that comprehension of the topic and skills of generating a poem might be needed to accomplish the task. One other learning activity asked students to write a letter to young women about feminism, describe how women's lives had changed or remained the same since 1970s, what they would say about the women's movement today and in the future, and reflect in what way they would encourage young women to continue working for women's rights. This particular activity appeared to demand students to engage in *creating factual, conceptual* knowledge. The last unique activity taking place in the last week of the term asked students to listen to some audio

clips of previous students describing their overall impressions of the current course, and then write a paragraph about their impressions of the class. This learning activity was associated with *remembering factual* knowledge.

Overall, the variety of learning activities described above provided students with opportunities of engaging in a wide range of cognitive processes and knowledge acquisition. However, the majority appeared to fall into the categories of *understanding factual* and *conceptual* knowledge, and *applying conceptual* and *procedural* knowledge, followed by *remembering* and *analyzing factual* and *conceptual* knowledge.

 With regard to the Discussion Questions (Activity D) task, it appeared that there were two common types of questions and three unique questions that students were asked to discuss. The two common types of discussion questions were categorized as Follow-up type and Do You Think type. There were six discussion questions that pertained to Follow-up type of questions which asked students to describe, compare, and summarize findings based on what they observed in their earlier Face-to-Face learning activities described above, such as interviews, polls, and observations. These kinds of questions appeared to engage students in *remembering* and *understanding factual, conceptual*, and *procedural* knowledge. In the Do You Think type of questions, students were asked to reflect on issues discussed in the week's lecture, such as whether they thought dominant notions helped maintain systems of inequality; whether they believed that full equality could be achieved under the current system of democracy and capitalism, why or why not. This type of discussion was associated with multiple cognitive processing levels and

knowledge domains, particularly those of *understanding* and *analyzing conceptual* knowledge.

As for the three uncommon discussion questions; each appeared to relate to different cognitive processes and knowledge categories. The first question asked students to write a paragraph about their expectations, fears, anxieties, and hopes about taking a women's studies class. This question seemed to involve *remembering conceptual* knowledge. The second question required students to devise an episode of a feminist soap opera with classmates, and then describe and reflect on women's and men's different ways of communicating. This question aligned with multiple categories, including *understanding factual* and *conceptual* knowledge, and *applying* and *creating conceptual* and *procedural* knowledge. The third unique question asked students to envision a just future, and whether they thought people could get there. This question seemed to demand a higher level of cognition, i.e. *understanding, analyzing, evaluating,* and *creating conceptual* knowledge. In all, it appeared that the discussion questions activity were most frequently associated with *understanding conceptual* knowledge, followed by *analyzing conceptual* knowledge, and then *remembering conceptual* knowledge and *understanding factual* knowledge, though a few were involved in *remembering factual* and *procedural* knowledge, *understanding* and *applying procedural* knowledge, *evaluating conceptual* knowledge, and *creating conceptual* and *procedural* knowledge.

As mentioned, the activism project (Activity P) required students to accomplish an individual research paper and a group report. In the research paper, students must research various facets of the issue the group selected, and write a report individually

for the group that conveyed the information discovered. In such task, cognitive levels involved were aligned with *remembering* and *understanding factual* and *conceptual* knowledge. As for the group report, students were required to complete actual activism based on the materials they designed and developed, and then generate a report containing such elements as "what the activism project was and the research data about the issue behind the project", describe each group members' experiences, what they had learned, and what the project had achieved. It seemed that these tasks had potential to engage students in all six levels of cognitive processes as well as three types of knowledge domains including *factual*, *conceptual*, and *procedural* knowledge. Although eighteen combinations of the six cognitive levels and the three knowledge domains appeared to involve in this project activity, the emphasis seemed to associate with *understanding* and *applying conceptual* and *procedural* knowledge due to the nature of the activism tasks.

A summary of the overall cognitive processing orders and knowledge domains the four types of the instructional activities were associated with is provided in Table 4-8. Each cell in the Taxonomy Table is divided into four slots, in the order of Activity R, Activity J, Activity D, and Activity P, to present the synthesized results of the four types of instructional activities. The darker the shade, the greater the weight of the activity is in that particular type of activities. The unshaded cells indicate that the category occurred less frequently in the overall activities of the kind. The table demonstrates that the overall instructional activities of the course appeared to allow student to engage in all six levels of thinking skills as well as three different domains of knowledge, particularly in *understanding conceptual* knowledge,

followed by *understanding factual* knowledge; both categories involved all four types of activities and all were emphasized activities shown by the shade. The next focused categories involved *remembering factual* and *conceptual* knowledge, *understanding procedural* knowledge, *applying conceptual* and *procedural* knowledge, and *analyzing conceptual* knowledge; all of these were associated with at least three different types of activities and at least two types of them were highlighted. The table also reveals that *meta-cognitive* criterion of knowledge were less emphasized in the learning activities.

Table 4-8. Analysis of instructional activities in terms of the Taxonomy Table

Knowledge/ Cognition	1 Remember	2 Understand	3 Apply	4 Analyze	5 Evaluate	6 Create
A Factual	Activity R	Activity R				
	Activity J	Activity J	Activity J	Activity J		Activity J
	Activity D	Activity D				
	Activity P	Activity P	Activity P	Activity P	Activity P	Activity P
B Conceptual		Activity R				
	Activity J	Activity J	Activity J	Activity J		Activity J
	Activity D	Activity D	Activity D	Activity D	Activity D	Activity D
	Activity P	Activity P	Activity P	Activity P	Activity P	Activity P
C Procedural						
	Activity J	Activity J	Activity J	Activity J	Activity J	Activity J
	Activity D	Activity D	Activity D			Activity D
	Activity P	Activity P	Activity P	Activity P	Activity P	Activity P
D Meta-Cognitive						

Analysis of Assessment Plans. As noted earlier, there were no assessment rubrics or standards available on the course syllabus. Description of the assessment plans provided by the instructor during the interviews, as discussed in the *Assessment*

Plans section on page 155, was hence used as the document for the analysis of the assessment plan here.

For both learning activities journal (Assessment J) and readings file (Assessment R), the instructor adopted the same assessment standards to conduct the evaluation. As stated earlier, the instructor mentioned that students' performance was not assessed based on the right/wrong answers; rather it was based on how students processed the materials. Nevertheless, the phrases the instructor stated during the interview, "processing the material" and "engaged with the material", did not clearly identify the cognitive levels and knowledge domains the instructor expected from students' works. However, according to the instructor's definition of "critical thinking skills", *understand*, *analyze*, and *create* appeared to be some cognitive processing levels the instructor expected from the students. The instructor on several occasions also referred those who were able to connect (apply) their personal experiences to the broader social context as "a good thinker". In addition, the knowledge domains the instructor emphasized appeared mainly associated with factual, conceptual, and/or procedural categories, such as processing "the materials", "the readings", and connecting "personal experiences". Therefore, it seemed reasonable to assume that the instructor would desire students to demonstrate *understanding*, *applying*, or *analyzing factual*, *conceptual*, or *procedural* knowledge involved in the learning activities, rather than simply *remembering* the associated knowledge.

With respect to the assessment plan for the discussion task (Assessment D), "contributing something substantial" also appeared ambiguous in terms of

classifying the cognitive levels the instructor expected students to engage in. The instructor, however, was clear about not wanting students "just putting cap up there", revealing that reciting/recalling statements/facts was obviously not what the instructor expected. Some example of putting cap, according to the instructor, included students simply stating "I agree". Hence, it was assumed that the cognitive processes involved here could be *understand, apply,* or *analyze,* and the criteria of knowledge could be *factual, conceptual,* or *procedural* knowledge, consistent with those expected from readings and journal tasks.

As to the activism project, the instructor specifically stated that she would evaluate students' project as "a finished product", rather than "the process" as employed in assessing the weekly tasks stated above. A finished product, according to the instructor, referred to the content of the report, such as whether students, having acted as an activist, conveyed the issues and problems they investigated in the report, and whether they understood and were able to relate issues addressed to the problems existing in the current social systems. These assessment criteria appeared to fall into the same categories as those described in the weekly learning activities, that is, *understand, apply, analyze,* and *create factual, conceptual,* and *procedural* knowledge.

A summary of the analysis of the assessments tasks of the four types of instructional tasks in terms of the Taxonomy Table is displayed in Table 4-9. Similar to the instructional activities, the instructor's assessment plan was less articulate in the thinking level of *evaluate* and the knowledge domain of *meta-cognitive.*

Table 4-9. Analysis of assessment plans in terms of the Taxonomy Table

Knowledge/ Cognition	1 Remember	2 Understand	3 Apply	4 Analyze	5 Evaluate	6 Create
A **Factual**		Assessment R, J, D, P	Assessment R, J, D, P	Assessment R, J, D, P		Assessment P
B **Conceptual**		Assessment R, J, D, P	Assessment R, J, D, P	Assessment R, J, D, P		Assessment P
C **Procedural**		Assessment R, J, P	Assessment R, J, P	Assessment R, J, P		Assessment P
D **Meta-Cognitive**						

Discussion of Findings Associated with Instructional Design

The main purpose of the course appeared to be to help students understand how some social systems, particularly inequality to women, worked in the real world. Although the instructional objectives seemed to focus on certain cognitive processes and knowledge criteria, such as understanding conceptual and procedural knowledge, and analyzing factual and conceptual knowledge, four different types of learning activities associated with various levels of cognitive processes and knowledge domains were provided to students to support the fulfillment of the objectives. For instance, students were provided with opportunities of remembering some initial factual knowledge from readings, understanding social, conceptual issues and reflecting on the journals, discussing, creating a just system via discussion board, and applying some procedural activism tasks. The instructor's assessment plans appeared to emphasize some higher order thinking skills, other than remembering factual knowledge; for instance, understanding, applying, or analyzing different domains of

knowledge. Table 4-10 displays the synthesized analysis of the instructional design of the course in terms of the Taxonomy Table, including objectives, instructional activities, and assessment plans.

Table 4-10. Summary of analysis of instructional design of the course

Knowledge/ Cognition	1 Remember	2 Understand	3 Apply	4 Analyze	5 Evaluate	6 Create
A Factual	Activities	Activities Assessments	Assessments	Objectives Assessments		Assessments
B Conceptual	Objectives Activities	Objectives Activities Assessments	Activities Assessments	Objectives Activities Assessments		Assessments
C Procedural		Objectives Activities Assessments	Activities Assessments	Assessments		Assessments
D Meta-Cognitive						

Not all objectives and instructional activities shown on Table 4-7, Table 4-8, and Table 4-9 respectively are included in Table 4-10. Only those frequently occurring categories are subsumed. In the instance of objectives, it consists of only the shaded criteria, regardless of the degree of the shade, whereas in the instructional activities, only relatively frequently occurred tasks in each of the four types of activities as described earlier are included. Table 4-10 reveals that instructional design of the course was aligned in three categories: *understanding conceptual* knowledge (cell B2), *understanding procedural* knowledge (cell C2), and *analyzing conceptual* knowledge (cell B4). It means that understanding some conceptual and procedural knowledge as well as analyzing certain conceptual knowledge delivered in the course appeared to be the common focus of the course objectives, instructional

activities, and assessment plans. The instructor mentioned, in the second interview, that for a lower-level undergraduate course like the current one, she only expected students to "kind of get the basis of the theory behind it and really to experience it". In this regard, the alignment falling into B2, C2, and B4 might satisfy the instructor's overall expectation to the course.

Analysis of Student Performance

Before describing student performance, the limitation in the collection of students' artifacts is addressed. Next, students' performance based on the collected artifacts is analyzed, followed by the instructor's satisfaction with students' overall achievement. Discussion of the findings associated with student learning outcomes is provided at the end.

Limitation in the Collection of Artifacts. Not all assignments that students submitted were collected due to one of the following two reasons: (1) students turned in the assignment late, but emailed the assignment to the instructor privately, instead of posting on Blackboard; (2) students submitted the assignment and uploaded on Blackboard, but for some reason the file could not be downloaded or opened. Requests were made to both the instructor and students for attaining copies of assignment files, but with no success. The assignments that were successfully collected are listed in Table 4-11. Assignments marked with "x" or "/", indicating the assignments in the week were fully or partially completed, were the assignments examined.

Table 4-11. Collection of assignments

Week	Chapter	Student A			Student B			Student L			Student S		
	Activity →	J	R	D	J	R	D	J	R	D	J	R	D
1	1	x	x	x	x	x	x				x	x	x
2	2	x	x	x	?	?		/		x	x	x	x
3	3 or 4	x	x	/	x	?	x				x	?	x
4	5 or 6	x	x	x	x	x	x	x	X	x	?	?	x
5	7 or 8	x	x	x	x	x	x	x	x	x	x	x	x
6	9	/	x	x	x	x		?	?	x	x	x	x
7	10	x	x	x	x	x		?	?	x	/	x	
8	11	x	x	x	x	x		x	x	x	x	x	x
9	12	x	x	x	x	x		x	x	x	x	x	x
10	13	x	x	x	x	x		?	?	x	x	x	x
	Group Project Ind. Paper Final report	x x			x x			x x			x ?		

J: Journal assignment; R: Readings assignment; D: Discussion assignment
x: The assignment was completed (2 Journals, 3 Readings, or required Discussions)
/: The assignment was partly completed (e.g. only one journal was submitted)
?: The assignment was submitted but had trouble collecting
Blank: The assignment was never submitted

Student Performance. Consistent with the analysis of instructional design, the

framework of revised Taxonomy Table proposed by Anderson, et al. (2001) was also

used to conduct the analysis of students' artifacts. Content analysis was the approach

utilized to analyze student learning outcomes. Students' assignments were first

analyzed statement by statement, followed by examining the overall performance.

Relative weights associated with cognitive processing levels and knowledge domains

students were engaged in were then assigned. Due to various length of the content in

each type as well as in each piece of the assignments, the weight of overall analysis

result was also presented in shade, the same as those demonstrated in analysis result

of instructional design, rather than by count. The darker the shade of the associated

category in the Taxonomy Table, the greater weight the category represented. Analysis of student performance based on each of the four types of activities and based on each individual is addressed respectively as follows.

(1) Readings File

Among the seven elements students were required to accomplish in the readings file, the first two elements (author name and reading title) obviously pertained to the category of *remembering factual* knowledge, in which the answers were expected to be the same in all students' works. Effort of accomplishing these two elements was arbitrarily assigned ten percent of the total weight out of student performance in this instructional activity. The analysis was thus focused on the remaining five elements in that those elements would be where distinguishing student learning outcomes. Amongst these five elements, some elements were required to be answered in only one statement, such as thesis, author's purpose, and intended audience; whereas some in one or two sentences, such as questions, or up to three sentences, such as supporting arguments. Because this learning task was composed of elements, student performance was thus examined sentence by sentence, and then element by element first, followed by analysis of the overall learning outcome students demonstrated in their artifacts.

a) Student A

In most of her reading assignments, Student A appeared to understand the messages and ideas the authors in the articles intended to transmit. She was articulate in addressing the supporting arguments, author's purpose, and intended audience of the articles. Student A also seemed to be able to apply the messages embedded in the

articles to the real life situation. For instance, in one article *Prostitution – A Different Issue for Feminists* written by Priscilla Alexander, in which the author discussed social values and the laws associated with the prostitution based on different countries' practices, Student A employed the term "a catch 22" to liken the prostitute's dilemma addressed in the article. Student A was also able to propose questions that were adequately related to the issues focused on the articles she selected to read. For example, in the article titled *Introduction to the Women's Bible* written by Elizabeth Cady Stanton, the question she raised was "Is the Bible a piece that influenced society about how we should view women?" Her overall performance in this learning task was thus placed in *remembering, understanding* and *applying factual* and *conceptual* knowledge, particularly in *understanding factual* and *conceptual* knowledge. Summary of Student A's learning outcomes in the readings file activity in terms of the Taxonomy Table is provided in Appendix 4-4.

b) Student B

Student B's performance in this reading task did not appear to be done well. Most of the elements she stated did not seem to be well aligned with the articles' fundamental point. The thesis statement Student B constructed often did not reflect the entire picture of the issues addressed in the article, nor did the statements given in the supporting arguments and author's purpose. In some instances, Student B was stating something that was irrelevant to the articles she chose. For example, in the prostitution article, the bigger frame of the article, such as issues involving the nation's policies and practices toward prostitution, was entirely left out in Student B's work. Rather her thesis was composed as "Prostitution exists because of the

subordination of women in most societies." The intended audience Student B

perceived was often too broad, such as "This is for a general audience", or

"Everyone". Most questions Student B composed also appeared beyond fundamental

issues addressed in the article. For example, the question she proposed in the reading

titled *Witchcraft and Women's Culture* written by Starhawk, was "Is the author a

witch?" In several readings, Student B simply left blank or wrote "I do not have any

questions for this author" in the questions element. It was speculated that Student B

simply scanned through the article, rather than engaging herself in deeper levels of

thinking in studying the content of the articles. Accordingly, her performance in this

learning activity was considered only involving the lowest level of cognitive process

and knowledge domain, *remembering factual* and *conceptual* knowledge,

particularly in *remembering factual* knowledge. Summary of Student B's

performance is shown in Appendix 4-4.

c) Student L

Based on the statements Student L wrote in the reading elements, it appeared

that Student L did well in illustrating her understanding of the materials presented in

the articles. She was able to appropriately construct statements in each element to

reveal the authors' core intention and attempted audience. For instance, Student L'

thesis written in the article *Only Daughter* authored by Sandra Cisneros was

"Understanding how family dynamics can influence ones [*sic*] needs to rise above

gender expectations and social norms", which reflected well the message embedded

in the article. The author's purpose Student L stated in the reading titled *Marriage

and Love* written by Emma Goldman was "Purpose is to convey to an audience the

current social understanding of marriage and love and how they are often seen as being synonymous which fails to see these terms in full light.", which appeared to properly describe the purpose of the article that the author attempted to deliver. The statement Student L wrote in the questions element in the article *Witchcraft and Women's Culture* as mentioned in Student B's performance above was "How are women fighting to regain some of their past roots in spirituality?", disclosing Student L's cognitive processes engaged in accomplishing the task went deeper than remembering factual knowledge. Accordingly, Student L's overall performance in this instructional activity was located in *remembering* and *understanding factual* and *conceptual* knowledge, but mostly in *understanding factual* and *conceptual* knowledge. Summary of Student L's learning outcomes in the readings task is displayed in Appendix 4-4.

d) Student S

Sentences presented in Student S' thesis and supporting arguments elements appeared to be copied statements from some paragraphs in the articles she chose to read. Cognitive processing levels and knowledge domains Student S illustrated in these learning elements were obviously associated with *remembering (reciting) factual* knowledge. Student S, however, composed her own statements in the remaining three elements, including author's purpose, intended audience, and questions. Yet it seemed that Student S in many readings did not quite capture the main ideas the authors intended to convey. The intended audience she specified appeared to be either too broad a range or inappropriate target. One such example was the statement she wrote in the article *Stopping Abuse in Prison* written by Nina

Siegal - "The intended audience could be anyone, but especially those who have had a prison experience", whereas the author's targeted readers appeared to be correctional officers, administrator, and policy makers associated with prison systems. Some questions Student S constructed also did not involve much cognitive processing endeavor. For instance, the question she proposed in the article *Claiming an Education* written by Adrienne Rich was "Did Adrienne Rich teach at Douglass College?" Apparently Student S did not make sufficient effort in comprehending the core themes of the articles she selected to accomplish her reading assignments. Nevertheless, she appeared more articulate in explaining the author's purpose in most articles she read. For example, the author's purpose she elaborated in the reading *Introduction to the Woman's Bible* was "To show the perversion and distortion of the Bible and how it is diligently followed by many, despite the fact that it portrays women poorly and shows why women tend to be so passive." Accordingly, her overall performance of this task was categorized mainly in *remembering factual* and *conceptual* knowledge, but some extent of *understanding factual* and *conceptual* knowledge. Summary of Student S' learning results in the readings file activity is provided in Appendix 4-4.

(2) Learning Activities Journal

Students' journal artifacts were analyzed sentence by sentence first to obtain the level of cognitive processes associated with each statement constructed, followed by paragraph by paragraph analysis. Next the overall composition of the artifact was assessed to determine the weight of cognitive levels students appeared to engage in accomplishing the task.

a) Student A

Student A in her journal assignment tended to choose the weekly activist profile as part of her learning activities. There were a total of seven activist profiles included in her journal artifacts. It appeared that most statements Student A composed in this type of task were associated with recalling facts and contributions the activists she studied had accomplished. However, it seemed that Student A accurately interpreted and summarized the information associated with the activists. The information she subsumed in her journals appeared to come from various sources, such as the textbook and websites the course provided. Based on how Student A organized and presented the activists' contributions and significance, it seemed that Student A's cognitive processes engaging in this learning activity also involved understanding factual and conceptual knowledge, in addition to remembering some facts and concepts she addressed.

Writing a letter to young females was one of the tasks Student A selected in her first week of journals. In the letter, Student A appeared to illustrate her ability to organize factual and conceptual knowledge. For example, she concisely presented to her readers what feminism stood for, what previous women went through struggling for suffrage and equality, and what many females had been neglecting about what was done in the past, such as the power of liberty. At the end she also made some suggestions to both women organizations and young females regarding how to attain "a vital understanding of human justice". In the learning activity in which students were required to summarize and comment on their interview findings with respect to why women chose piercing/tattoos, Student A appeared to relate the piercing event

to her own "cultural trait", in addition to identifying "interesting" and "artistical" as two major reasons females she interviewed chose to have tattoos or piercing. Student A also appeared to understand legislative procedures of some issues involved with women and legislation, such as Afghan Women Security and Freedom Act 2004. She was able to clearly describe how the act came about and what could be done to stop violations of human rights and women's rights. In discussing "unearned assets (privilege)" topic Student A seemed able to connect her minority and female status to the issues addressed.

Student A's overall learning outcomes shown in the journal activity in terms of the Taxonomy Table was accordingly placed in the following categories: *remembering*, *understanding*, *applying*, and *analyzing factual*, *conceptual*, and *procedural* knowledge, particularly in the categories of *understanding* and *applying factual*, *conceptual*, and *procedural* knowledge. A summary of Student A's performance in this learning activity is displayed in Appendix 4-5.

b) Student B

Student B also selected several (six) activist profiles in her journal assignments. Most of statements contained in Student B's activist profile journals were recited information from some referenced sources. Most of her other journals were also composed of statements in which she either recited her findings from interviews or observational activities or recalled her personal experiences. One of the learning activities Student B chose was to identify inductees at National Women's Hall of Fame (NWHF) in 2003 and comment on the significance of having a NWHF. Student B in this journal provided a list of the 12 elected inductees and each

inductee's brief background, which she remarked was copied from the NWHF website. At the end she wrote a two-sentence reflection stating that the significance of having a NWHF was that people could recognize those extraordinary women; and they deserved "to be acknowledged and praised". One other learning activity Student B chose was to discuss Huerta's (an activist's) challenging stereotypical notions of minority women in the US. In addition to reciting Huerta's contributions to the worker's movement, Student B briefly expressed her personal impression of certain minority groups in her community. Although Student B seemed to connect the issue to her personal perceptions and experiences, she, however, did not provide any explanations or reasoning to support her assertions, which appeared to hold true to most of her other journals.

However, Student B seemed to have demonstrated certain extent of cognitive engagement of understanding issues she addressed in some journals. For example, when discussing the relationships between beauty norms and eating disorders, Student B was able to connect the issue to a different norm which she thought "different cultures" might have viewed. Student B's effort involving in the interview and observational tasks also appeared related to applying factual, conceptual, and procedural knowledge to her personal experiences, such as inequality of housework distribution she perceived in her own family, though the focus of her work seemed to be on recalling and describing some past or ongoing events. Her performance illustrated in this learning activity was hence placed in *remembering, understanding,* and *applying factual, conceptual,* and *procedural* knowledge, particularly in

remembering factual, *conceptual*, and *procedural* knowledge. A summary of the analysis is provided in Appendix 4-5.

c) Student L

Except one learning activity which was associated with a survey task, Student L's journals collected were mainly related to examining and/or commenting on some issues discussed in the course, such as unearned privilege issue, access to contraceptives, Lesbian family, and EPA (Equal Rights Amendment). Because of the type of tasks Student L selected, her journal content was mostly composed of personal experiences and reflections. For instance, in her Unearned Privilege journal, Student L used her own minority family background as an example to illustrate the concepts of the issue. In the Myths and Fact of Lesbian Families activity, she also reflected on her personal experiences about lesbian relationships based on perceptions she attained from her aunt's and her own. Some information Student L related in the journals appeared to involve some procedural facts, such as the background and ongoing processes of ERA. In her only survey activity investigating family structure, she effectively presented the results she discovered from families she interviewed, which she claimed that she had to "explore" to collect. It appeared that Student L demonstrated an ability to understand the issues she was engaged in and applied the knowledge to her personal endurances. Student L's cognitive engagement levels involved in the journal activities were therefore placed in *remembering*, *understanding*, and *applying factual*, *conceptual*, and *procedural* knowledge, particularly in *understanding* and *applying factual*, *conceptual*, and *procedural* knowledge. A summary of the analysis is displayed in Appendix 4-5.

d) Student S

Most of Student S' journals consisted of statements copied from referenced sources, or reports of findings discovered from interviews or observational tasks. One of the five activist profiles Student S chose to study was Del Martin. When discussing the significance of Martin's work in the battered women's movement, Student S stated that she considered "book writing" as Martin's most significant accomplishment because "books are a very powerful tool." Although Student B's contention appeared legitimate, she, however, overlooked the fundamental idea and impact involved in Martin's movement and the organization she co-founded, such as providing quality, affordable health care and health education to women; and standing up for herself and lesbians under universal social disapproval. In other activities, Student S also attempted to relate issues she addressed to her personal experiences, though most of her reflection did not explore deep enough to demonstrate higher levels of cognitive engagement than remembering category. For example, in the Lesbian Family learning activity, she claimed that she did not have many misconceptions about gays and lesbians; she in the mean time argued that people lived in a society that "doesn't accept change well" and the society could also be "very biased". However, no evidence was followed to back her assertion up, which occurred in most of her journal statements, and left her learning outcomes purely personal opinions rather than comprehending or analyzing the issues she addressed.

Nevertheless, in some cases, Student S appeared able to demonstrate somewhat higher order of cognitive processing, such as understanding factual and conceptual

knowledge. One of her efforts in this respect was her being able to summarize the results she attained from conducting interviews and observations. The processes of interview and observational activities also appeared to involve Student S in connecting (applying) some concepts she acquired to her real-life practices, such as realizing her own "privileged" status of being a white American. Accordingly the overall cognitive processes Student S engaged in was placed in *remembering*, *understanding*, *applying factual*, *conceptual*, and *procedural* knowledge, particularly in *remembering factual*, *conceptual*, and *procedural* knowledge. A summary of the analysis of Student S' performance in the learning activity journals is shown in Appendix 4-5.

(3) Discussion Questions

Table 4-3 displayed in the *Discussion Questions* section on page 138 sheds some light on numbers of students participating in discussions as well as numbers of messages posted in each question and in each week. It was found that three types of interaction occurred among students' messages exchanged on the discussion board: Concern, Encouragement, and Agreement. The first type of interaction, Concern, took place in two discussion forums: the second discussion forum titled *Discussion*, in which students could post items relate to class assignments, deadlines, and suggestions in general; and the third discussion forum (Chapter 1 Question 1), in which students were required to state reason for taking the class, expectations, fears, anxieties, and hopes about taking a Women's Study class. In these two forums, Student A and Student S exchanged their concern regarding how online students would accomplish the activism project collaboratively.

The second type of interaction, Encouragement, was also observed in two instances: the third forum (Chapter 1 Question 1) and the eighth forum (Chapter 4 Question 1). In the third forum, Student B first expressed that she had "a hard time opening up and sharing thoughts and opinions" with others but was "excited about working with new people, and working on overcoming fears about being more outspoken". Student A then made an entry specifically responding to Student B's message by stating that she hoped Student B would be able to acquire skills that she feared she lacked. In the eighth forum, Student NP-X made the first entry addressing the week's question by describing women's and men's different ways of communicating. Then Student S posted her statements by first complimenting that Student NP-X made "a really good point" and then shared her own experiences about growing up with her three brothers.

The third type of interaction, Agreement, appeared to be the most common type of interaction occurring among students. There were seven entries made by three different students, Student A, Student L, or Student S, which fitted this type of interaction. One example of such interaction occurred in the 17th discussion forum (Chapter 10 Question 1), in which students were asked to explain why violence against women was so prevalent in society. Student NP-X made the first entry asserting that she believed "the cause of violence against women stemmed from discrimination...", Student L followed by stating "I would have to agree with you...", and then Student A topped the message by expressing "I agree with you as well..." However, most interaction of this type had only one agreeing message following, rather than two or more as exemplified.

It appeared that students who posted their entry in a question later were more likely to respond to messages posted earlier, whereas students who made an earlier entry to a question were much less likely to make additional comments to continue the exchange of information and ideas. As mentioned earlier, according to the computer records automatically tracked by the system, Student B stopped posting discussion statements after the fifth week of the class, whereas Student NP-Y made all her discussion entries at the very last week of the term. Other than these situations, there seemed no clear pattern with respect to which student usually made the first or earlier entry, which student generated greater amount of entries, or which student responded to others' messages more frequently. In other words, not one student appeared to dominate the discussion process. Analysis of the discussion content was conducted sentence by sentence in each question first, followed by the overall learning outcome each student presented.

a) Student A

Student A's performance in this instructional activity appeared to be associated with different levels of cognitive processes and knowledge domains. The statements she posted in the discussion board contained a certain amount of factual knowledge (*remembering factual* knowledge), for example, reporting interview findings and identifying some known social issues discussed. However, in addition to stating factual information, Student A was able to either summarize the findings she reported (*understanding factual*, *conceptual*, and *procedural* knowledge) or relate described facts to causes she perceived in her surrounding (*applying factual* , *conceptual*, and *procedural* knowledge). For instance, in the discussion in which

students were asked to explain whether women still faced inequality in their work inside and outside the home, Student A explained and attributed inequality between women and men to "people still followed the tradition established many years ago". She also mentioned that there might be ways of breaking the deadlock issues, though she did not further explore possible ways of achieving so. Accordingly, her overall performance in this discussion activity was categorized as *remembering, understanding*, and *applying factual, conceptual*, and *procedural* knowledge, particularly in *understanding factual, conceptual*, and *procedural* knowledge. A summary of the analysis result is displayed in Appendix 4-6.

b) Student B

Student B tended to respond to discussion questions by sharing her own personal life experiences (*remembering* and *understanding factual* and *conceptual* knowledge). For example, as part of her composition in addressing the discussion question regarding why women chose piercing/tattoos, she described why she had tattoos on her body and what the symbol of tattoos meant to her. However, some entries Student B posted on the discussion forums did not seem coherent in the content. For instance, in the discussion question in which students were asked to find out five people's attitudes toward feminism, Student B briefly reported her interview findings and then made a two-sentence conclusion. Nonetheless, the conclusion Student B made did not appear well supportive to the findings she reported. Most assertions Student B made in the discussions appeared to be her personal opinions; that is, no evidence or references was provided to support her statements. Furthermore, in a total of four weeks (the first and the third to the fifth weeks) of

participation in the discussion activity, Student B did not seem to connect or explore her personal endurances to a broader aspect of the social context. Therefore, Student B's learning outcome in this learning task was associated with *remembering* and *understanding factual* and *conceptual* knowledge, particularly in *remembering factual* and *conceptual* knowledge. A summary of Student B's learning outcome in Discussion Questions is provided in Appendix 4-6.

c) Student L

A portion of the content composed in Student L's postings also involved *remembering factual* knowledge, such as reporting findings she discovered from her interview practices and describing her personal experiences and opinions on some questions discussed. However, it seemed that Student L in several discussions was able to demonstrate her understanding of the issues discussed and also viewing issues in a relatively broader social context (*understanding* and *applying factual* and *conceptual* knowledge). For example, in the discussion question in which students were asked to interview people and find out their family structure, Student L was able to explain and summarize different types of family structures she discovered from her interviewees. In one other discussion in which students were required to comment on whether they believed full equality could be achieved under the current system of democracy and capitalism, Student L appeared to be the only one who asserted different perspective of viewpoints from others as described earlier. She was articulate in reminding others that unless there were some drastic changes, such as "rebuilding a system that is not patriarchal and that values people not money"; there would not be a society with full equality. Although Student L seemed to have the

potential of connecting the issues discussed to a bigger frame of social context, she did not explore questions further enough to illustrate her analytical ability. Therefore, her cognitive processes involved in accomplishing this learning activity were placed in *remembering, understanding*, and *applying factual, conceptual*, and *procedural* knowledge, particularly in *understanding factual, conceptual*, and *procedural* knowledge. A summary of Student L's performance is shown in Appendix 4-6.

d) Student S

Student S' works in this discussion activity appeared to be mainly associated with reciting personal opinions or some common known facts (*remembering factual* and *conceptual* knowledge). For example, she stated "Never in the history have we seen a female president" to emphasize her argument in the discussion question regarding people received privilege based on gender, race, and/or sexual orientation. However, Student S appeared able to apply some discussion issues to her personal experiences (*applying factual, conceptual*, and *procedural* knowledge). In the second entry she made in the same question of unearned privilege, she stated that she began to recognize that being white did seem to privilege her in many daily life events which she mentioned she had been oblivious to in the past. In some discussion questions, students were asked to report interview results, Student S appeared to appropriately summarize her findings (*understanding factual, conceptual*, and *procedural* knowledge) in addition to identifying the discovered results. She, nevertheless, did not engage herself in further cognitive processes, such as examining issues she addressed or cited more deeply. Therefore, her performance was placed in the categories of *remembering, understanding*, and *applying factual*,

conceptual, and *procedural* knowledge, particularly in *remembering factual*, *conceptual*, and *procedural* knowledge. A summary of the analysis result is displayed in Appendix 4-6.

(4) Activism Project and Research Paper

The activism project consisted of two major components of artifacts: an individual research paper and a group report. Here only individual research papers were included in the analysis because of three reasons: 1) the final report completed by Student B in Group 1 was not collectable; 2) most tasks accomplished by Group 2 appeared to be conducted by Student A; and 3) most importantly, only individual papers could distinguish each individual's learning effort while engaged in the project. The topics Group 1 and Group 2 selected in the project were: HIV/AIDS and Date/Acquaintance Rape respectively. Among the four studied cases, Student S was assigned to Group 1, whereas Student A, Student B, and Student L belonged to Group 2.

a) Student A

Student A's paper was titled *Preventing Rape by Education and Self-defense*, a six-page, double-spaced report. Five references were included in the bibliography section; all were retrieved from some Internet websites. In this ten-paragraph report, Student A started with introducing some ways that women could prevent acquaintance rape from happening, such as education and understanding why one might encounter such incident and then avoid potential incident altogether. Student A went on to describe different measures for responding to the incident should it occur, such as setting clear limits on sexual behavior, being assertive, showing your

annoyance, using verbal resistance, self-defense, and "gut instinct". She also cited

some research findings to support her statements, including the most effective ways

for self-defense and how women were able to avoid rape and to deter the attacker,

though she did not include the source of the citation in most of the cited statements.

At the end of the paper Student A drew a conclusion asserting that acquaintance rape

could be prevented if people, particularly youngsters, could be aware how the current

belief systems worked; how to use self-defense; and how to communicate honestly

and respectfully with themselves and others. It appeared that Student A understood

the subject she investigated very well, and also adequately presented the researched

results. Her cognitive processing levels in this task was thus placed in *remembering,*

understanding, and *analyzing factual, conceptual* and *procedural* knowledge,

particularly in *understanding factual, conceptual* and *procedural* knowledge. A

summary of Student A's learning result demonstrated in the research paper is

provided in Appendix 4-7.

b) Student B

Student B included three references in the bibliography section of her research

paper titled Date/Acquaintance Rape. The three references she listed at the end of her

paper were given as follows:

Bibliography
Hope for Healing
Rainn
Utexas

The underline was used in each of the references listed. It was presumed that the

references listed by Student S referred to some Internet websites. However,

throughout her paper, only one reference was included in some statements she once

cited. Her three-page paper contained eight paragraphs, mainly composed of her personal knowledge and experiences. Student B, however, appeared to clearly describe some acquaintance rape incidents and addressed some misconceptions associated with date rape, using a very close friend of hers as a vivid example. In her paper, she described the sequence of reactions and emotions a rape victim might have had, including initial shock, denial, embarrassment, shame, guilt, depression, powerlessness, and disorientation; anxiety, panic attacks; and then anger might build up later on, which might make the victim ill. Student B also pointed out that a big misconception about date rape was that people often thought it only occurred to women, while she cited that five to ten percent of sexual assaults committed in the US involved male victims. Although Student B's paper was limited to describing some known facts and her personal knowledge about date rape, she seemed to understand the topic well. Therefore, her cognitive processes associated with this task were placed in *remembering* and *understanding factual, conceptual,* and *procedural* knowledge, particularly in *remembering factual, conceptual,* and *procedural* knowledge. A summary of Student B's performance is displayed in Appendix 4-7.

c) Student L

Student L named her research paper - *Blaming the Victim,* which was a three-page report, containing five paragraphs and three references; one of the references was the main textbook required in the course. Although Student L only used limited referencing resources, she appeared to appropriately cite the information in her paper. She also appeared quite articulate in addressing the issue she studied. Each of the

five paragraphs was well organized to present the point she attempted to elaborate. For example, when she claimed that "Our society has created a rape culture", she was able to provide some reasoning behind her assertion, such as role expectations from the society to both women and men and the accomplice role the media played in publishing the news when incidents occurred. At the end of the paper, Student L provided a simple but clear conclusion urging people not to continue contributing to a rape culture's beliefs about victims of rape. It seemed that cognitive processing level Student L demonstrated in this research paper went beyond reciting, understanding facts and the concepts; she illustrated a certain extent of analytical thinking processes. Accordingly Student L's performance was located in *remembering*, *understanding*, and *analyzing factual*, *conceptual*, and *procedural* knowledge, particularly in *understanding factual*, *conceptual*, and *procedural* knowledge. A summary of Student L's performance illustrated in the research paper is provided in Appendix 4-7.

d) Student S

Student S listed 13 references in the bibliography section of her HIV/AIDS research paper. It appeared that the entire content of Student S' paper was pieced together from statements extracted from the references she listed. Her six-page paper was broken down into 19 paragraphs without any sub-headings or any clear theme in each paragraph. Not only was the information cited from the references poorly organized, but some statements in the paper were also repeatedly stated in different paragraphs. For example, her statement that the HIV virus originated in Africa through some species of monkeys appeared twice in two different paragraphs in the

paper, so was her reference to the fact that the disease was named GRID (Gay Related Immune Deficiency) because it was primarily found in gays. The cognitive level Student S was engaged in this task was thus categorized in the lowest level in the Taxonomy Table: *remembering factual* knowledge. A summary of Student S' learning outcomes presented in the project is displayed in Appendix 4-7.

Summary of Findings Associated with Student Performance.

The above analysis of student performance revealed that students were mostly engaged in three levels of cognitive processes: *remember, understand*, and *apply.* The *analyze* category was only observed in some instances in two students' (student A's and Student L's) artifacts. The two categories *evaluate* and *create* were less often articulated in student's individual works, though the final project report submitted by Group 2 seemed to reveal certain extent of *create* processing level, which was not included in any of the individual students' performance. More specifically, Student A and Student L were able to illustrate the first four levels of cognitive processes in the Taxonomy Table, *remember, understand, apply*, and *analyze*, particularly in the category of *understand.* Student B and Student S, on the other hand, were mainly engaged in the first three orders of thinking process, particularly in the cognitive level of *remember.* As to knowledge domain, the first three types of knowledge in the Taxonomy Table, factual, conceptual, and procedural, were found in all four students' artifacts. However, different types of instructional activities appeared to engage students in slightly different knowledge categories. For example, the readings assignment did not seem to demand students to

engage in procedural knowledge, whereas the other three types provided students with more opportunities to do so. When viewing cognitive processes along with knowledge domains students were engaged in, it appeared that *remembering* and *understanding* some *factual* and *conceptual* knowledge were the common categories that the four studied cases illustrated in all four types of instructional activities, followed by *remembering* and *understanding procedural* knowledge and *applying* the three types of knowledge. Table 4-12 displays the overall result of analysis of student performance. The darker the shade, the more learning outcomes were found associated with the category. The extent of engagement levels students demonstrated in each type of learning activities was also differentiated by bracket and star sign, where [ ] indicates greater extent of students' engagement in the activity and * shows less extent of such engagement.

Table 4-12. Summary of analysis of student performance

Knowledge/ Cognition	1 Remember	2 Understand	3 Apply	4 Analyze	5 Evaluate	6 Create
A Factual	A: *R *J *D *P B: [R] [J] [D] [P] L: *R *J *D *P S: [R] [J] [D] [P]	A: [R] [J] [D] [P] B: *J *D *P L: [R] [J] [D] [P] S: *R *J *D	A: *R [J] *D B: *J L: [J] *D S: *J *D	A: *J *P L: *P		
B Conceptual	A: *R *J *D *P B: *R [J] [D] [P] L: *R *J *D *P S: [R] [J] [D]	A: [R] [J] [D] [P] B: *J *D *P L: [R] [J] [D] [P] S: *R *J *D	A: *R [J] *D B: *J L: [J] *D S: *J *D	A: *J *P L: *P		
C Procedural	A: *J *D *P B: [J] [P] L: *J *D *P S: [J] [D]	A: [J] [D] [P] B: *J *P L: [J] [D] [P] S: *J *D	A: [J] *D B: *J L: [J] *D S: *J *D	A: *J *P L: *P		
D Meta-Cognitive						

A: Student A   B: Student B   L: Student L   S: Student S
R: Readings   J: Journal   D: Discussion   P: Project paper
[ ] indicates greater extent of engagement   * indicates less extent of engagement

However, it is worth noting that students' learning outcomes did not seem improved significantly as the course progressed. Rather in some instances it was found that student performance was deteriorating, rather than improving. For example, several learning activities asked students to write a journal about their findings from interviews or observations, and then discuss and share their experiences and findings with peers on the discussion board. Most students appeared to accomplish these tasks better at earlier weeks of the class, but tended to copy their journal content and paste to the counterpart discussion question in later weeks. This situation was found in three students' works: Student A, Student L, and Student B. Student S was also prone to reflect her personal experiences or personal opinions in her journals more elaborately in earlier weeks, but was inclined to copy statements from the referenced information to her journals content in later weeks; one extreme example was the activist profile journal she composed in Chapter 12, in which all statements she wrote in the journal were identical to statements presented in a half page of the textbook introducing the activist contributions. In addition, students did not seem to construct their research paper and articles following either APA or MLA style required in the course. Most either did not include references they cited in the journal or paper, or they presented the references in the bibliography section in an inappropriate format.

The Instructor's Perspective with Student Performance

In the third interview held in the seventh week, the instructor stated that students' work was "improving." The instructor was asked to further describe the

learning outcomes of each of the four studied cases in her last interview. The instructor considered Student L "one of the most articulate" students, who learned the course subjects "at the deepest level." She also regarded Student A "a good thinker," which she stated had reflected in her grade. As to Student B, the instructor commented "not as articulate." However, she mentioned that Student B was able to "make connections between her personal experience and the big picture," which she emphasized was particularly valued in Women's Studies. The instructor specifically exemplified some improvement Student B had made as a result of taking the course which the instructor was impressed with. The instructor stated that Student B who at the beginning of the class expressed that she had difficulties opening up herself with others, a statement which she had also posted on the third discussion forum. However, Student B at the end of the class was able to share some of her prior personal trauma with the instructor in her journal, which the instructor claimed had fulfilled one of the goals of feminist pedagogies, that is, offering a safe place for students in the class to exchange and share personal experiences and knowledge.

Student S' performance, according to the instructor, varied depending upon the types of instructional activities she were engaged in. The instructor commented that Student S "did a good job" on both readings and journals assignments in that she was able to "analyze the thesis and the supporting arguments" in the readings, and could "make some sense" of the issues she addressed in the journals. The instructor, nevertheless, stated that Student S' research paper was "more informational than really critical thinking". Overall the instructor believed that all four students were able to make some connections to the fundamental concepts of feminism delivered in

the course, such as racism, genderism, ageism, ableism (able-bodied), anti-semitism, and class bias. The instructor's only dissatisfaction with students' works appeared to be the length and content students elaborated in the journal assignment, in which the instructor commented that she was "cynical" about because students were "basically too lazy to really write and dig" in the learning activities they were engaged in. At the end Student A and Student S were the only two students in the class who earned a letter grade "A" from the instructor. The reason that Student L did not receive an A grade, according to the instructor, was because Student L "did not do enough of the work," which seemed particularly true in the first three weeks of the class.

Discussion of Instructional Design and Student Performance

The various learning activities provided in the course appeared to allow students to demonstrate various levels of cognitive engagement involved in several knowledge domains, including the lowest cognitive level of knowledge retention to higher thinking skills of knowledge transformation, such as understanding, applying, analyzing, and creating. However, each student seemed to demonstrate similar patterns of performance in all four types of assignments over the term. There was no apparent sign or trend indicating students' improvement as the class progressed. Student A and Student L tended to engage themselves in understanding knowledge they acquired from the course content in all four types of instructional tasks, whereas Student B and Student S throughout the term were inclined to continue reciting and identifying facts and concepts as they constructed their assignments.

Students themselves seemed satisfied with their performance in the course when they were asked to assess their learning outcomes accomplished and the learning effort they had contributed to the group project and to the course. All three students who completed the last wrap-up interview, expressed that they had tried their best contributing to the project tasks and they also stated that they had learned a lot from the course subject. However, it was speculated that some students' assertion regarding learning a great deal of the course content could most likely refer to being able to identify and recall much of the factual knowledge, rather than actually developing more critical perspectives toward the course subject. The instructor also appeared content with student overall accomplishment. The instructor stated that students were able to either reflect personal endurances to issues discussed in the course or make connections between personal experiences and the larger social context. Her specific expectation to students' improvement in their assignments was students being able to elaborate further and make lengthier entries in the journal task.

When comparing the analysis results of student performance as shown on Table 4-12 with those of instructional objectives, activities, and assessment plans the instructor initially intended to achieve as displayed on Table 4-10, it appeared that the darkest highlighted areas on both tables were well aligned in the category of *understanding conceptual* knowledge in terms of the Taxonomy Table. It revealed that students in general had accomplished a portion of the course objectives the instructor attempted to fulfill with the support of instructional activities and assessment plans provided in the course, though some students demonstrated greater extent of engagement in such category than some others.

An Emerging Theme – Contrast of Two Studied Cases

During the data analysis process, an emerging theme was brought to the researcher's attention. Two students who appeared to have different backgrounds and different studying effort devoted to the course work, and also demonstrated different learning outcomes eventually earned the highest scores in the class, with 3.73 out of 100 points difference, and received the same final letter grade. How it came about is described in this section. First of all, backgrounds of the two students, Student A and Student S, and efforts they spent on studying the course are briefly recapped. Next, performance of the two students illustrating in the course is compared, including grades they received in their assignments and the instructor's response to the comments posed. At the end, discussion of findings associated with the emerging theme is provided.

Comparison of Backgrounds and Study Effort

According to interview information, Student A was a part-time employee, while Student S was employed full-time during the term the study was conducted. However, Student A was a full-time student and was enrolled a total of 17 credits in the term, whereas Student S registered in three online courses worth nine credits. Student A appeared to be very proud of her academic records, such as GPAs she earned from high school and from the college she currently attended. The pre-survey data revealed that both students had never taken any Women Study course prior to the current one; both claimed themselves having "neutral" type of personality, and both preferred individual type of study, though Student A indicated that she did not

mind working with the group if needed. Student A reportedly had prior experiences with the courseware used in the class, whereas Student S did not. By contrast Student A had never completed any online course, while Student S had accomplished three to four online courses previously. Both considered their technical skills "average". More background information about the two students is provided in Table 4-1.

Although both Student A and Student S asserted not having much prior knowledge about Women's Study, both expressed high interest in learning the course subject, which was revealed on one discussion forum posted at the beginning of the class. As mentioned earlier, Student A and Student S appeared to be greatly concerned with the grades earned. Nonetheless, according to the pre-survey data, Student S indicated that she would spend less than four hours of time per week on studying the course, while Student A stated that she could commit herself five to fifteen hours per week to learning the course. Both students' reaction to the course workload was first revealed when they were asked to compare the time they spent on the current course to others. Student A in the first face-to-face interview responded:

> In this class I have found it to be so much reading. It is crazy... it is like you read every chapter literally, and you write about each chapter literally, and then you research. There are readings, there are journals, and then there are discussions. Then there is your activism project. It takes up a lot of time. Professor [name], she expects us to work eight to ten hours a week. (The first interview with Student A, Oct. 28, 2004)

In the last round of interview, Student A reiterated the heavy workload of the course assignments and reported that it indeed took her more than the required hours to complete the required assignments. One of the reasons she claimed was that she "wanted to learn the [course] materials". In addition to reading and composing

assignments, Student A mentioned that coordinating the activism project also took up a lot of her time, which she stated had held her up from submitting some weekly assignments on time. According to online observation, Group 2, to which Student A was assigned, was eventually able to submit their project on time with substantial amount of time and effort devoted by Student A as described earlier. On the contrary, the project of Student S' group, Group 1, fell through at the end. Not only did Group 1 not complete the project based as a group, but Student S' final project report was also not constructed and presented using the required PowerPoint format. It was reasonable to assume that a report accomplished in a PowerPoint format and photos taken during the progress of the project would consume much more time and effort than that of a plain text file.

The weekly study hours Student S indicated she would spend in the pre-survey was confirmed in her last interview. Similar to Student A, Student S also asserted that the current course was the most time consuming one among the three online courses she was taking. When she was further asked whether four to five hours were enough to accomplish all the tasks required in the course, particularly students in the class were expected to spend eight to ten hours per week on learning the course content. Student S responded:

> Yeah, I would say four to five hours is probably sufficient. I could have given it more, but I am also working full-time and taking other classes. (The end-of-term face-to-face interview with Student S, Dec. 6, 2004)

Although Student S mentioned that the course materials were important to learn, she added that "it wasn't anything that I was going to take with me later."

It appeared that the two students' learning habits were also different. The difference in this respect was discovered when students in the interview were asked how they reacted to the materials they read; for example, whether they usually agreed or disagreed with the viewpoints addressed in the essay articles they read in the textbook. Student A was articulate in exemplifying what articles she agreed with, what she did not agree with, and what she disagreed with but respected others' different viewpoints. Student S, however, did not seem to have any judgment regarding the articles she chose to read. She appeared to *appreciate* the authors' viewpoints, rather than making any critical statements. She in the end-of-term interview explained:

> You know, pretty much most of them seemed to be insightful. I didn't really have an opinion one way or another. I was just kind of reading them and taking them in. It was kind of a learning experience for me, just to kind of learn it. I wasn't really looking at it from one standpoint or the other, of taking a side. I just kind of read it and thought, ok, that's interesting. Not really agreeing or disagreeing. (The face-to-face interview with Student S, Dec. 6, 2004)

In the wrap-up interview, students were asked one added question with respect to whether they would take any other online courses in the future term. Student S' response to the question was simple and positive "Yes". Student A, on the contrary, did not intend to take any other online courses, even though she acknowledged that she had learned a great deal from the current course subject, mainly due to the "stressful" experiences she endured in the current term. She stated:

> It is a successful course because you learn a lot from it. I think that because how it was established, how this class was established, I was kind of not tempted to take any online courses again. I am not interested. I think there was way too much reading, and too much readings, plus the journals. It was

just so much. I have never seen a class like that and I have got that from a lot
of people. Don't take online classes because there is so much more work than
regular courses... Oh, yeah, this one was really stressful for me. (The second
face-to-face interview with Student A, Dec. 3, 2004)

In addition to readings and journals, as mentioned previously, coordinating

the group project with peers at a distance reportedly added more stress to

Student A during her taking the online course.

Comparison of Student Performance and Grades Earned

As reported in the previous section, the cognitive processes and knowledge

domains Student A and Student S were engaged in during the course appeared to be

perceivably different. The former tended to engage in understanding and applying

conceptual and procedural knowledge in most instructional tasks and also

demonstrated some extent of analytical ability, whereas the latter was prone to be

involved in remembering factual and conceptual knowledge. Both students claimed

that they had learned a lot from the course content. As mentioned above, Student A

was articulate about the knowledge she had attained from the course. In the end-of-

term interview, she particularly mentioned that she had learned to respect and judge

issues from different perspectives. She stated that there seemed no right or wrong

answers in many debatable issues which she in the past would have only stuck to one

side of the viewpoints. The change of her attitudes and perspectives in judging things

was considered as part of her learning aftermath from taking the course.

Student S' assertion of learning a lot from the course presumably was referring

to learning a lot of factual knowledge. She described her learning process as reading

through the materials and appreciating different viewpoints presented in the articles,
rather than engaging in higher levels of thinking processes, which learning results
also showed in the artifacts she submitted. Moreover, some of Student S'
performance seemed to deteriorate as the term progressed toward the end in that
more copied statements from the referenced source were found in some of her
artifacts. For example, one of the journals Student S submitted in Chapter 12, one of
the learning activities at the ninth week, was composed of 100 percent of referencing
statements copied solely from the Activist Profile content provided on the textbook.
In order to exemplify the difference between these two students' performance, the
two students' assignments accomplished in this learning activity are provided.
Appendix 4-8 displays the content of the activist profile presented in the textbook.
Appendix 4-9 shows Student A's and Student S' work demonstrated in this journal
respectively. It appeared that Student A's journal was lengthier than that of Student
S'. More importantly, although Student A's journal also consisted mostly of
referencing statements, she also cited statements from various sources – the textbook
and some web resources. She appeared to summarize Burroughs' contributions and
explained the activist's effort using her own interpretation, rather than reciting the
statements from one sole source as Student S did.

However, according to grading records, both students received full scores for
all readings and discussion questions assignments they once submitted. As to the
journal assignment, six weeks of Student A's journals were deducted one sixth or
one tenth of the total points, according to the instructor, because Student A submitted
the assignments late, whereas all of Student S' journals, but one, earned full credit,

including those containing mostly copied statements. Student A's project was assigned a full score, whereas Student S' was taken one-sixth points off the total score. According to the instructor, Student A deserved a high score in the project because Student A had "knocked herself out" for the project tasks, while Student S' research paper was basically informational.

Comments that these two highest-grade students made about the overwhelming amount of assignments was brought up to the instructor during the last interview with the instructor. The instructor's response was:

> They should have seen it the first time. It is about a third of what this course originally was. Again, it goes back to eight to ten hours. If they spent eight to ten hours every week doing this class, it would not be overwhelming. It would be a piece of cake, as a matter of fact. You can easily do everything at an A level for this course in eight to ten hours a week. The problem is, my guess would be that they got in there Thursday night or Friday morning, going, oh, crap, my stuff is due. They are trying to do the readings, do the journals. (The last interview with the instructor, Jan. 7, 2005)

The varied number of hours students spent on learning per week was also posed to the instructor during the interview. The instructor's reaction was that it depended upon the speed at which each person worked: some students might "work faster" than others, particularly after "they know the system". As for the situation where students did not accomplish their project report using some required software, the instructor's reply was she would cut students "some slack" if they did not possess the software required in their computer.

As mentioned earlier, the instructor seemed satisfied with the overall learning outcomes students illustrated in the course, including Student A's and Student S'. As

stated previously, she commented that Student A was "a good thinker" who was able to connect what she learned to the broader social aspect, a comment which appeared consistent with the learning results the researcher reported in the previous section. The instructor also stated that Student S had done "a good job" in that she could make sense of issues discussed in the course and was also able to "analyze thesis and the supporting arguments" addressed in the essay articles. However, the analysis results reported earlier disclosed that statements Student B composed in those two elements were *all* copied sentences from various paragraphs of the articles she read.

Discussion of Findings Associated with the Two Contrasted Cases

Both Student A and Student S appeared to start the current course without much prior knowledge. Both also seemed to have similar level of technical skills. As far as personal time schedule was concerned, both seemed occupied with their job and courses currently taken. The main difference between the two students appeared to be their study habits. For example, Student A was inclined to devote herself to learning the course even if it took longer than the suggested hours, whereas Student S tended to finish up her assignments within the hours she predetermined to spend. It was speculated that their study habit was greatly associated with the learning outcomes the two students demonstrated in the course in that each appeared to consistently engage in the same levels of cognitive processes and knowledge domains without much change or improvement throughout the term. The instructor, on the other hand, appeared content with both students' overall performance. As a result, both students eventually received the best grade in the course partly because

the instructor did not perceive the difference between the two students' actual learning processes and learning outcomes.

Implication of the Study

This study examined a web-based undergraduate course structured around social learning theories, in which both individual-based and group-based instructional tasks were integrated in the instructional activities. The purpose of the study was to investigate students' learning experiences with such a course through the lens of cognitively guided research method. This research attempted to study four research questions:

1. Do the instructional objectives of the course provide students with the opportunities to learn the domains of knowledge and intended levels of cognitive processes that the instructor targets?

2. Does the designed instruction (learning activities and assessment tasks) help students to achieve the desired learning objectives?

3. How do the perceptions of the instructor change over the course of examining the cognitive nature of the instruction she delivers?

4. What changes for future instruction are identified that are intended to strengthen this course in subsequent offerings or future courses?

This section briefly recaps overall results reported earlier. Implications embedded in the findings are also provided through addressing each of the four research questions focused in this study.

Research Question 1

Do the instructional objectives of the course provide students with the opportunities to learn the domains of knowledge and intended levels of cognitive processes that the instructor targets?

The instructor teaching the course expected students to learn fundamental concepts and theories associated with women and society based on feminist visions; she also expected students to act on what they had learned through implementing an activism project required in the course. Eight course objectives were specifically laid out in the course syllabus. The instructor expected students to be able to identify, understand, analyze, and engage in social inequality issues, particularly those involving women, as a result of taking the course. In terms of the Taxonomy Table those objectives were associated with different cognitive processing levels as well as various knowledge domains. The focus of the objectives involved two cognitive processes: understand and analyze, while knowledge domains were related to factual, conceptual, and procedural knowledge. Although two to four sub-objectives were included in each week's lecture, the sub-objectives appeared consistent with those specified in the overall course objectives both in cognitive processing levels and knowledge domains. As the instructor reported, the course was a lower level undergraduate course and she only expected students to acquire the basis of the theory behind the course subject and then experience it. The course objectives the instructor pursued appeared adequate in terms of developing students' cognitive processes and content knowledge in the described categories.

Research Question 2

Does the designed instruction (learning activities and assessment tasks) help students to achieve the desired learning objectives?

In support of fulfilling the objectives, the instructor designed a variety of instructional activities and assessment plans to help students develop attempted thinking skills and content knowledge. There were four different types of instructional activities required the students to complete readings, journals, discussion questions, and a research paper and activism project. Those activities appeared to provide students with opportunities to engage in multiple cognitive processes and knowledge domains. The instructor's assessment plans were accordingly based on students' learning outcomes illustrated in those four types of tasks. The four types of activities were composed of individual learning activities, such as readings and journals, and collaborative learning tasks, such as discussion questions and an activism project. Among these instructional activities, both the instructor and students reported that the individual-study type of tasks was more helpful and successful in learning the course content than the collaborative type of activities. Barriers to accomplishing collaborative tasks included students not being accustomed to working with others, particularly in a distance learning environment, and having difficulties contacting group members to work on the project. Although all students appeared familiar with the nature of the online course, they expressed the need for face-to-face interaction or some more immediate communication tool, such as online chat, to facilitate their collaborative project tasks required in this

asynchronous web-based course. Not knowing who was actually in the group and how to contact group members in a timely manner appeared to be the major frustration students encountered in working on the project. Instructor-mediated assistance to alleviate students' resistance in engaging in group-based project as well as facilitate students' progress toward the process of completing the project appeared necessary. For example, the instructor could keep the class informed of students' dropping and adding status in the course; help students acquire contact information, such as phone numbers and email addresses, and make the information known to all group members; and assign students roles needed to more effectively accomplish the project tasks.

Students also did not seem to take advantage of the other collaborative learning opportunity, the discussion questions activity, to further explore their learning experiences and exchange thoughts and ideas. The interview data revealed that students registered in the class were not used to interacting with peers in a non-face-to-face setting mainly because they did not expect to do so, which seemed to be attributed to their prior knowledge and/or experiences with other online courses. They reportedly expected to learn the course material on an individual-study basis. This finding, consistent with findings reported by several other studies, such as Harmon and Jones (2000), Kochtanek and Hein (2000), and Wegerif (1998), reaffirmed that helping students overcome the newness of the concept of the learning approach was one of the biggest challenges in implementing constructivist-, collaborative-based online courses. Helping students to overcome this barrier at the beginning of the course is an important task that the online instructor, particularly

those who emphasize the collaborative and constructive pedagogical instruction, must be aware of and prepare for. Some researchers suggested that a transitional period be provided to better prepare students with shifting from the traditional teaching/learning approach to the new educational paradigm (Gilbert & Driscoll, 2002; Wegerif, 1998). In the current course, students were required to proceed with both the traditional, individual type of learning approach and the new, collaborative learning mode at the same time throughout the term, which to some extent could be readjusted to better helping students become familiar with the new learning method.

Overall, this course was a well structured course. Not only did the instructor prepare the course design with ample opportunities for students to learn the course subject, but students themselves also acknowledged that the course was well formatted. However, the well designed course structure did not seem to guarantee the provision of social aspect of learning atmosphere, which many researchers argued important in deciding students' perceptions and satisfactions with the computer-mediated communication course (Gunawardena & Zittle, 1995, 1997; Tu & McIsaac, 2002). Although the instructor in the current study reportedly attempted to contact students as frequent as possible, her heavy travels to some areas where the internet access was not available appeared to occasionally impose difficulty for her to perform routine duties. In addition, the purpose of the instructor's contacting students seemed limited to course-related tasks, rather than promoting students' sense of connectivity to the class. Some students in the interview also expressed that they could not sense the presence of the instructor in the class in that no single class announcement was ever posted on the course website. More effective

communication approaches focusing on bonding students to the online learning communities could have been reinforced, such as making use of the Announcement feature available on the portal page of the course website to announce and update up-coming class activities. Hill, et al. (2002) concluded that provision of multiple communication methods and posting updated announcement messages were some best strategies in establishing learning communities in a web-based course. Gunawardena and Zittle (1997) suggested that distance instructors, especially those who were not used to online interaction tasks, would need to learn to adjust to the new medium and also enhance skills for culturing a sense of social presence in the computer-mediated learning environments.

Students participating in this study appeared to have acquired enough prior technical skills to succeed in the course. Yet students tended to expect more technical support in the course, such as an orientation of the use of the courseware, while the instructor argued that it was the student's responsibility to develop technical skills required in the online course. Considering both perspectives, the course seemed to progress smoothly in the technological aspect. Some students in the class reported that they gained some technical skills from taking the course. However, the major advantages of the technological aspect of course appeared to be associated with the nature of the asynchronous mode of the web-based course. For example, students claimed to have avoided the distraction normally encountered in the traditional classroom setting full of physically present classmates, and not have to compete for attention in the class. In addition, students reported that the online learning setting allowed them with more time for thinking and for composing their

assignments. One student even described her online learning experiences as having a test every day because writing online allowed her to rewrite the statements until she was satisfied. This assertion by the students was also reported by many other researchers, such as Branon and Essex (2001), Davidson-Shivers, et al. (2001), and Kamin, et al. (2001). Most students in the current study also appreciated the opportunity to view others' thoughts and opinions via discussion board while constructing their own assignments, which appears to be a feature that is not available in the traditional classroom environment. Nevertheless, the need for technology tools, such as a working computer, to access to the course content posted on the website was some disadvantage some students in the study reported.

From the managerial aspect of instructional practice, the instructor's challenges appeared to address the late assignment issue in all types of learning activities, and students' lack of enthusiasm at some course activities, such as the discussion questions activity. Students' late participation and lack of enthusiasm at the discussion questions task prevented this collaborative learning activity from becoming beneficial and meaningful learning experiences for students. More effective measures are needed to effectively promote the learning activity to its full potential, which is addressed in the fourth research question below.

Research Question 3

How do the perceptions of the instructor change over the course as she examines the cognitive nature of the instruction she delivers?

As mentioned, the instructor considered the structure of the course enriched with a variety of sources that allowed students to engage in various learning activities and learning experiences. The instructor also appeared satisfied with students' overall performance in all types of activities. However, she asserted twice in two different interviews that she was a little disappointed about students' not having elaborated their journals to the extent she had expected. Although the instructor did encourage students to explore more and engage deeper in their journals through feedback, students' efforts in that respect did not seem to improve over the term. It was observed that two of the instructor's practices may have contributed to the issue. First of all, even if the instructor was not completely satisfied with some students' works, she continued crediting students with full points in most of the assignments students submitted, regardless of the quality and quantity of coursework they accomplished. As most students stated in the interviews it only took them a short while to figure out the instructor's expectation to their assignments by viewing the grades they received. Secondly, most of the feedback the instructor provided to students appeared short, composed of mainly encouraging and complimenting statements, or not sufficiently rich enough for the readers to capture the embedded messages she attempted to deliver. The instructor at one point perceived the need for providing students with more specific feedback messages after she was asked by the researcher about the clarity of some feedback she provided to students early in the course. She appeared to deliberately make some modifications in her feedback accordingly at some later point. Some students, on the other hand, considered the instructor's feedback helpful in that they could know whether their work had met the

instructor's expectation, though others claimed that the instructor's feedback had always been too little and too late. This issue directly connects to prior research as some other researchers have found that receiving explanations and elaborated feedback was positively associated with achievement, whereas terminal responses, such as pointing out mistakes without providing explanations, were detrimental to students' learning results (Webb, 1985). In order to effectively promote students' higher-order thinking skills development that goes beyond simply reciting and describing some personal experiences to address issues discussed in the course, appropriate, timely, well elaborated, and critical feedback experiences must be strengthened in the current course.

Students' prior knowledge with Women's Study was once considered a factor that would affect students' learning attitudes and learning results. However, no relationship was found in that respect. All four studied cases expressed positive attitudes toward taking the course and a desire of acquiring the course content at the beginning of the class. Each student's learning outcomes also appeared irrelevant to their academic background and their previous knowledge of the course subject. It seemed that each student's performance was mainly dominated by the student's own study habits in that each student appeared to construct her own assignments in all four types in the same patterns and continue the same practices throughout the term. In some cases, student performance appeared deteriorating toward the end of term. Dewey (1933) described that reflective mind originated from a sense of perplexity and desire of searching for cause and effect. Some students in the current course reportedly studied the course subject with a mindset of reading, appreciating others'

viewpoints, rather than engaging in and constructing the presented knowledge in a more active, meaningful way. Such learning habit, based on Dewey's (1933) description of reflective thinking, might not help students to achieve so effectively. In addition, feedback and assignment grades the instructor gave students also appeared to be some main reasons for not helping students to engage in active, deeper thinking. One most obvious example, as described in the *Emerging Theme* section, was the two students who spent significantly different amounts of time and effort on studying the course, and who also illustrated significantly different quality of performance eventually received the same letter grade from the instructor. Some researchers contended that assessing online discussion and interaction has been a struggle to many online educators (Hawkes & Dennis, 2003) in that it was still a relatively new assessment area to educators and researchers in the distance education discipline. Only adequate and high-quality assessment tasks could reinforce a positive impact on student achievement, and could also inform the instructor and students about more effective teaching and learning strategies (NRC, 2001).

Research Question 4

What changes for future instruction are identified that are intended to strengthen this course in subsequent offerings or future courses?

According to the instructor, two changes would be made in future instruction: one change associated with the discussion questions activity, and the other related to the activism project. Both were collaborative type of instructional activities. The

instructor stated that in future course terms she would enhance the discussion activity by giving students more specific instruction requiring them to frequently participate in the discussions, such as engaging in multiple discussions in each question assigned in each week. However, this reinforcement attempt appeared to be the same as that specified in the current course syllabus. Discourse is considered the core of collaborative, constructivist, knowledge-building communities (Hawkes & Dennis, 2003; Gilbert & Driscoll, 2002). During the discussion process students are expected to construct knowledge collaboratively through sharing, exploring, and negotiating their knowledge and expertise. The instructor could monitor each student's learning progress and provide adequate, timely feedback accordingly. In order to promote effective discourse, some researchers suggest that the instructor elicit students' participation, moderate students' discussions, and summarize as well as synthesize statements that students post (Bonk, et al., 2001; Maor, 2003). In addition to facilitating discussion tasks, some instructors of web-based courses purposefully assigned heavier weight to this learning activity in order to promote students' commitment to the task. For example, Maor (2003) reported that the weight of the discussion activity in the course examined took up as high as 40 percent of the final grade, in which student performance demonstrated in the discussion activity was assessed based on both the quality and quantity of students' discourse posted. Without effective moderation and adequate assessment plans, the instructor's requirements laid out in the current course might not be of sufficient emphasis to support learning, and would most likely be regarded as some perpetual issues existing in distance courses as the instructor once mentioned. The instructor also

decided to abandon the collaborative part of the activism project at least in the near future because of the difficulties students reported. Students in the future would complete the project on an individual basis.

Some researchers used the term "shovelware" to describe the situation when some course content was *shoveled* from one communication medium to another without being given much concern about the appropriateness of this shift (Cannon, 2002; Fraser, 1999). The course examined in the study had been offered by the department in the traditional classroom setting for more than a decade, but was later developed into a web-based course in the past few years. In addition to including some static materials in the course content, such as the textbook, the web-based version of this course was also interwoven with a variety of other materials, such as online audio clips and dynamic web links to various resources and websites associated with the course subject. The structure and the content of the web-based course appeared resourceful and customized to distance learners. Nevertheless, even though the course content was well developed and the instructor had never taught the current course in the classroom mode, the instructor, in a way, seemed to shovel the teaching and learning approach from the face-to-face classroom mode to a distance situation.

Students' failing to demonstrate improvement in their learning results over the term, particularly in the cognitive aspect of development, was speculated to be associated with the instructor's teaching belief, which in turn appeared to affect her instructional practices. The instructor strongly believed that it was the student's responsibility to learn the content once the course content was well presented to them,

including being responsible for learning the technical skills required in the course, being responsible for sustaining and participating in the discussion activity via the discussion board, and being responsible for asking questions or figuring out requirements specified in the course syllabus, such as the writing style. She also believed that the quality of distance courses could be equivalent to those of on-campus ones when students registered in the distance course received the same amount of assignments as those enrolled in the classroom course. Accordingly, she purposefully assigned students enrolled in the current course with more assignments in order to make up the hours that students were not required to physically attend the class. Nevertheless, the instructor seemed to only commit herself to performing some basic tasks required in the course, such as sending reminders to students, providing some minimal feedback, and posting students' grades, presumably because of her busy research schedule. Some more important tasks necessary to teach and sustain collaborative, constructive, and student-centered online courses were absent from the instructor's instructional practices, such as fostering online learning communities among learners, promoting students' sense of connectivity to the class, moderating students' discussions, and providing timely and "critical" feedback to students.

Building a community of learners has become a common slogan for those interested in creating new and possibly more effective ways of teaching style and learning experiences. The new, alternate pedagogical frameworks in concert with the development and application of collaborative, interactive, constructivist learning theory have provided new teaching and learning paradigms to distance instructors and students. Many researchers and educators contended that it could be an

opportunity for higher education teaching to transform from lecture/knowledge delivery approach to a reflective, knowledge-sharing model (Fennema, 2003; Laurillard, 2002; Maor, 2003). Students engaging in community-learning environments were also found to have perceived significantly greater opportunities to apply and develop higher-order thinking skills than those in the independent type of study model (Anderson & Garrison, 1995). However, in the future terms, with the collaborative portion of the activism project being eradicated and the discussion activity remaining stagnant, the current course would no longer be a collaborative-, constructive-based distance course. Rather, it would be associated with its original traditional, static, and individual-study type of distance course, a teaching and learning mode that Lipman (1991) described as knowledge transmission, in which the instructor plays an authoritative role affecting what students would learn thereafter.

Kozma (1994) stated that more advanced media had provided current distance instructors with opportunities of designing interactive, dynamic, and collaborative instruction, which would have certain impact on the student's achievement. Clark (1994) strongly argued that instructional design was the key influencing the learning effect. In the current study, the course examined was structured using some advanced technologies, such as the computer and the internet, and the instructional design also seemed well developed in that a variety of learning opportunities and learning activities were integrated into the course subject. The missing element in the course appeared to be the instructor's facilitation mindset, which in turn appeared to be related to the instructor's belief in teaching the distance course. The concept of

teaching an interactive, collaborative, and constructive distance course must be established from the instructor's end first before students ever have an opportunity of developing their higher order thinking skills to the full extent in the course they are taking.

The overall findings reported in the study are consistent with the conclusions addressed for the reviewed literature in the literature review section. That is, instructional design of web-based courses based on social learning theories does have the potential of providing a venue for students to engage in learning experience sharing and knowledge construction collaboratively; fostering such collaborative, constructive learning communities appears more comprehensive than the instructor initially expected; more effective approaches and instructional strategies are needed to help students develop their cognitive processing skills and knowledge domains in such learning communities. However, the finding of this study also reveals that the instructor's facilitation skills, in addition to the instructional design, also play a critical role to the success of creating such learning environments. Only when the instructor is pedagogically and psychologically ready for teaching the online course as well as adequately armored with moderation skills will students taking the course have the opportunity of engaging in meaningful learning and knowledge construction.

Limitations

In the term this study was conducted, only nine students registered in the course; three of them never "showed up" in the class. As the instructor mentioned in an interview, the class size was a little smaller than usual. The six remaining students

eventually completed the course and earned academic credits. Four of these six students agreed to participate in the study. As a result, the study could only focus on examining how these four students managed to complete the course. The drop-out rate has been perceived as a serious matter in distance education since its inception (Bernard, et al., 2004). This study, however, was not able to explore students' learning experiences in that respect. In addition, the total number of cases studied was fewer than the attempted six. Nevertheless, the in-depth interviews, four with the instructor and two with each of the students, coupled with full examination of the course documents, the four students' complete artifacts, and the entire class' interaction presented in the discussion board, appeared to have shed light in terms of the participants' teaching and learning experiences taking place in the course. Although two of the studied cases were only interviewed through email correspondence, rather than planned oral communication, the immediate follow-up approach via email had helped to attain the information desired in the study, and had thus helped to address the research questions focused in the study.

Recommendations

The study reveals that several factors must be deliberately considered when delivering an online course. First of all, instructors participating in teaching online courses must realize and be prepared for the extent of effort and time the new teaching approach may demand, particularly when delivering a collaborative, student-centered online course is the instructional intent. As mentioned, some educators and researchers recognize that implementing such collaborative,

constructivist, constructive teaching and learning paradigm does take one to several times more of effort and time than that delivered through the traditional teaching and learning method (Kochtaneck & Hein, 2000; Kramare, 2003; Maor, 2003). Commitment from the instructor appears to be an essential element to successfully deliver the online course.

In addition to the instructor's engagement, it appears that the instructor's facilitation skills are also a crucial factor to the success of practicing the web-based course. Helping online instructors develop such skills involves the institution's commitment and support. One of the supports the institution could provide is to offer training to online instructors prior to designing the online course. In order to effectively conduct the training session, some practical issues that faculty may be encountered ought to be articulated. Fennema (2003) illustrated some examples of issues that could be addressed during the training session, including (1) motivation – explaining to faculty members the importance of committing themselves to delivering the online distance course; for example, a better connection between their life situation and the teaching practice; (2) content – providing faculty members with the associated volume of literature prior to creating an online course, such as technical skills needed, effective strategies for teaching online, characteristics of online learners, and philosophy of online learning; and (3) format – scheduling a convenient workshop location for faculty throughout the country and providing participants guidelines and suggestions for fostering an online course.

Adequacy of training and orientation provided to online instructors may also account for the quality of the online course. Lieblein (2000) suggested that

mentoring by more experienced faculty members was an effective way of insuring

quality. Other important faculty supports include those proposed by Lieblein (2000),

such as instructional design assistance, technical support, other types of support

beyond content design and delivery, and policies for faculty evaluation consisting of

recognition of effort contributed to teaching the online course and related scholarly

activities. One approach that seems fundamental to insure the quality of online

course delivery is restructuring the tenure system and the allocation of scholarship.

As Wolcott (2003) pointed out, the reforming method must establish motive and

incentive and recognize potential barriers for faculty participation in teaching online

courses.

The delivery of courses at a distance, especially online ones, is fast growing in

higher education (Wolcott, 2003). More faculty members in higher education are

expected to teach online courses, particularly those perspective and newly joined

faculty (Wolcott, 2003). In order to meet the future demand and assure as well as

sustain high quality of online course delivery, both the instructor's and the

institution's commitment to such task is necessary.

Future Research

Assessing online discourse and interaction appeared to be one of the unclear

areas in the instructor's assessment plans in the current study. Although the

instructor expected students to make "substantial" statements in the discussions,

there were no instructions provided to students regarding how the discussion

statements would be assessed, other than the number of entries students were

required to post on the discussion board. Some online educator and researchers have developed some coding schemes to analyze and assess learning outcomes demonstrated in students' discussion statements. For examples, Wang, et al. (2003) examined students' discourse by coding the posted statements into 11 types, such as opinion, negotiation, argumentation, and social interactions (see page 40 for details). Moller, et al. (2000) employed three categories of codes to assess the communication patterns occurring within the team members in each team, including practical, social, and interpersonal (see page 43 for details). Meyer (2005) utilized the six categories of educational taxonomy proposed by Bloom, et al. (1956) to assess "the ebb and flow" of students' online conversations (see Table 2-5 on page 71 for the categories). Nevertheless, these coding schemes were employed to analyze students' discourse after it took place, rather than providing some guidelines or rubrics to guide students while engaging in the discussion activity beforehand. It is suggested that future researchers develop some discourse guidelines or rubrics associated with expected learning goals to lead students to the attempted learning outcomes. For example, developing rubrics and examples that specifically instruct the levels of cognitive processing and the types of knowledge domains students are expected to perform in the discussion for different disciplines of subject matters and for different levels of the associated subject matter.

Even though this study exemplified how instructional design and student performance could be systematically analyzed using a cognitively guided approach, the issue demonstrated in this study needs to be continually addressed and refined. A large scale of study involving more researchers and more studied courses may be

desired. A collective effort and knowledge could look into the coding and analysis processes from different perspectives and develop sounder analysis schemes across other contexts, other than the one shown in this study context. Moreover, in addition to investigating the social science field, it is suggested that other academic fields be studied, such as context in mathematics and natural science disciplines in that those areas are where the existing literature is less focused on.

The instructor in the study eventually abandoned the collaborative part of the project because of some persistent difficulties encountered by students. Some researchers suggested that assigning roles to students be reinforced to facilitate the progress of the group project (Gilbert & Driscoll, 2002; Maor, 2003; Wang, et al. 2003). However, to what extent the roles assigned and other associated strategies impose impact on the completion of the project and students' learning effect, and how the interaction between and among group members develops during the collaborative process deserves further investigation.

The researcher was once concerned that data collected through email correspondence, rather than the planned oral communication, might have affected the richness of the information students provided. Although the issue in this study was minimized because of frequent email follow-ups and rich information gathered from other data sources, the concern may be pertinent for situations where only writing communication is available, instead of face-to-face or oral communication. To what extent writing communication influences the richness of discourse content, compared to that generated in the traditional oral communication, seems to be one other research topic that future researchers interested in this field can explore.

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APPENDICES

Appendix 2-1. Summary of the four roles of the online instructor

Roles	Components
1. Pedagogical role	Assume role of facilitator or moderator (for example, ask questions, probe responses, encourage student knowledge building and linking, summarize or weave discussion, help identify unifying themes, and support and direct interactive discussion, design a variety of educational experiences, provide feedback, offer constructive criticism and rationale, provide explanations and elaborations, utilize direct instruction when appropriate, elicit comments and reflection, referring to outside resources and experts in the field).
2. Social role	Create a friendly and nurturing environment or community feel, exhibit a generally positive tone, foster some humor, display instructor empathy and interpersonal outreach (eg include welcoming statements, invitations, and apologies), and personalize with discussion of one's own online experiences.
3. Managerial role	Coordinate assignments (eg explain assignments, set plans for receipt of assignments, assign partners and groups, set due dates and extensions for assignments), manage online discussion forums (eg set pace, focus, agenda), and handle overall course structuring (eg organize meeting times and places, set office hours, clarify grade distributions, explain the relevance of the course, correct course materials and discuss potential course revisions).
4. Technological role	Assist with user technology and system issues, diagnose and clarify problems encountered, notify when a server is down, explain system limitations.

Source: Bonk, Kirkley, Hara, and Dennen (2001, p. 78)

Appendix 3-1. Pre-survey

Academic-related Information

1. How many Women's Studies courses have you taken before?
   ☐ None
   ☐ 1~2 courses
   ☐ 3~4 courses
   ☐ More than 4 courses
2. Reason for enrolling this course
   ☐ Baccalaureate core course
   ☐ Major required
   ☐ Minor required
   ☐ Personal elective
3. Academic level
   ☐ Freshman/Sophomore
   ☐ Junior/Senior
   ☐ Graduate student
   ☐ Non-Matriculated

Technological-related Information

4. Have you ever used the Blackboard system prior to WS223 course?

   ☐ Yes
   ☐ No, have you ever used other Web-based software, such as WebCT, CUSeeMe, etc.?
      ☐ Yes
      ☐ No
5. Prior computer skills
   ☐ No skills
   ☐ Low skills
   ☐ Average skills
   ☐ High skills
6. I am comfortable with communicating through writing
   ☐ Strongly agree
   ☐ Agree
   ☐ Neutral
   ☐ Disagree
   ☐ Strongly disagree
7. Convenience of access to the computer
   ☐ Very convenient
   ☐ Convenient
   ☐ Inconvenient
   ☐ Very inconvenient

Learning Style and Personal Belief

8. I am comfortable of discussing, arguing, and sharing ideas, life, work, and educational experiences with others
   - ☐ Strongly agree
   - ☐ Agree
   - ☐ Neutral
   - ☐ Disagree
   - ☐ Strongly disagree
9. I am willing to "speak up" if problems arise
   - ☐ Strongly agree
   - ☐ Agree
   - ☐ Neutral
   - ☐ Disagree
   - ☐ Strongly disagree
10. I believe that high quality learning can take place without going to a traditional classroom.
    - ☐ Strongly agree
    - ☐ Agree
    - ☐ Neutral
    - ☐ Disagree
    - ☐ Strongly disagree
11. I consider myself a self-motivated person.
    - ☐ Strongly agree
    - ☐ Agree
    - ☐ Neutral
    - ☐ Disagree
    - ☐ Strongly disagree
12. Study habit/preference
    - ☐ Individual study
    - ☐ Group study
    - ☐ Other, please specify:
13. I consider myself:
    - ☐ Extrovert
    - ☐ Introvert
    - ☐ Neutral
14. Number of hours intended to devote to this course per WEEK
    - ☐ Less than 4 hours
    - ☐ 5 – 15 hours
    - ☐ More than 15 hours if needed

Demographic Information

15. Reason for taking this Web-based distance course
    ☐ Course not offered on campus
    ☐ Distance or lack of transportation
    ☐ Conflicts in personal schedule
    ☐ Family responsibilities
    ☐ Interest in technology/Internet
    ☐ Other
16. Employment
    ☐ Not employed
    ☐ Part-time
    ☐ Full-time
17. Age
    ☐ Under 20
    ☐ 20 – 29
    ☐ 30 – 39
    ☐ 40 – 49
    ☐ 50 and up
18. Gender
    ☐ Female
    ☐ Male
19. Marital status
    ☐ Single
    ☐ Married
20. The number of children (under 18) you are currently living with.
    ☐ None
    ☐ 1-2
    ☐ 3 or above
21. Proximity to campus
    ☐ Less than 30 minutes away
    ☐ 30 minutes to 1 hour away
    ☐ 1 to 2 hours away
    ☐ More than 2 hours away
22. Racial/ethnic identity
    ☐ American Indian or Alaskan Native
    ☐ Asian or Asian American
    ☐ Black, African American, Non-Hispanic
    ☐ Hispanic or Latino American
    ☐ Middle Eastern or Middle-Eastern American
    ☐ North African or North African-American
    ☐ Pacific Islander
    ☐ White, European American, Non-Hispanic
    ☐ Other
23. Is English your native language?
    ☐ Yes
    ☐ No

Appendix 3-2. Semi open-ended interview questions with students at week **5**

Background information
1. Please briefly introduce yourself, including your academic background, family, or work.
2. Why do you choose this web-based distance course over a traditional classroom course? (Personal interest, work conflict, or family responsibility reason?)

Course related information
3. What is your expectation to the course at the beginning of the term? In other words, what did you expect to learn from the course?
4. How do you prepare yourself to engage to the WEEKLY class discussions and required tasks (including outside class activities, assignments, team project)?
5. How have class activities helped you to better understand the course contents? Please give some examples.
6. Have you perceived any differences or unusual situations during class dialogues and activities, such as cultural, gender, knowledge background differences? If so, please describe.
7. Is the teaching style of the course different from those you took before, including face-to-face and other distance courses.

Technology-related information
8. How did you get yourself ready to take on this distance learning course in terms of technical skills and online learning experiences?
9. Do you think technical skills affect your online participation and communication with the instructor and/or with other peers? If so, in what extent? (For example, have your technical skills helped/deferred you from participating in the online activities more/less frequently?)
10. What strategy do you use to get your ideas and arguments cross others via written communication?
11. Compared to face-to-face classroom communication, how does communication through written format affect you in terms of your thinking habit/style? For instance, do you spend more time thinking, constructing your responses or ideas before posting them?
12. Do you believe that high quality learning can take place without going to a traditional classroom? Why?

Self-reflection
13. How do you motivate yourself to study this course?
14. What study approach/strategy do you think works best for you in terms of completing the required tasks (e.g. assignments, project)? (For example, individual study, or collaborative learning?)
15. What do you think that you have benefited most so far from this course in terms of teaching/instructional style? How about the least?

<u>Personal Information</u>
16. Does your personal life interfere with your study? If so, how?
17. Does your family support your academic study, either financially or morally?
18. Any other comments?

Appendix 3-3. Semi open-ended interview questions with students at week **11**

Learning Experiences
1. Please describe your overall learning experiences of this course.
2. Please describe your study/learning approach to the course throughout this term, such as arrangement of study time, preparation of engagement to class discussions and required tasks?
3. Does the study approach you used in this course different from courses you took before, including both traditional face-to-face courses and other online courses?
4. Please describe the communication pattern and frequency between you and other class members as well as you and the instructor?
5. How do you evaluate your contribution to overall class tasks and activities and/or team work this term?
6. Have you perceived any issue during the term when engaging to the class activities, for example, whether differences between academic background, gender, or culture cause any problem?

Technology-related Questions
7. Do you think your technical skills have affected your learning to the course, either positively or negatively? How so?
8. Do you think you have been fairly evaluated or graded in terms of studying via a web-based course? In order words, is the online written communication helpful or detrimental to you in the aspect of expressing or presenting yourself to the instructor and peers in class? Please explain.
9. Do you (still) believe that high quality learning can take place without going to a traditional classroom? Why?

Self-reflection
10. Thinking back of the whole term of the class, what appears to be most successful and most frustrated to you studying through online communication?
11. Overall speaking, are you satisfied with your performance in this course, including communicating with others and completing the required tasks (e.g. class activities, assignments, and project)? In other words, do you consider yourself a so-called "good" student? Why?
12. If you could start over taking the class, what would you do differently to make learning experiences of this course more successful?
13. If you were the instructor teaching the course next term, what would you do differently from the current instructor to help students learn the course content?
14. Any other comments?

Appendix 3-4. Semi open-ended interview questions with the instructor at week **1**

Background information
1. Please briefly describe your teaching experience in higher education.
2. Please describe your experience of teaching this course both web-based and non-web-based, if applicable.
3. What are students' characteristics registered in this course?

Course Objectives
4. What is your overall expectation to the course? In other words, what big picture do you have in mind that you expect students to learn from the course?
5. Looking at the attached table, i.e. Anderson, et al.'s (2001) taxonomy table, what domains of knowledge and what levels of cognitive process do you intend students to acquire from this course?
6. How do you define "higher-order thinking"?

Instructional Design
7. How will you help students to acquire initial understanding of the course subject, such as fundamental knowledge and conceptions, at the beginning of the term as well as throughout the term? (Scaffolding plan)
8. What cognitive strategies will you use to help facilitate students' higher-order thinking development?
9. How will you help students foster an online learning community? In other words, how will you encourage students actively participate and contribute to class activities?
10. How will you help those who do not have sufficient technical skills adjust to the web-based distance course?

Assessment Plan
11. Please describe your assessment plans implemented in the course, including evaluation of their turned-in assignments, projects, and online participation and contributions.
12. How will you align your assessment tasks with your course/chapter objectives and learning activities?
13. How will you evaluate students' online participation and contribution to the class both quantitatively and qualitatively?

Other
14. What instructional role do you intend to play in this web-based course, other than providing course content to students?
15. According to your past experience, what appeared to be the biggest challenge(s) teaching this course subject?
16. Is there any issue that you have projected that most likely to emerge during class activities and learning tasks? Please give some examples.
17. How will you efficiently maintain the enormous amount of online statements generated from students' dialogues and discussions?
18. Any other comments?

Appendix 3-5. Semi open-ended interview questions with the instructor at week **11**

Student Performance
1. Reviewing the taxonomy table, please describe students' overall achievements with regard to acquisition of domains of knowledge and levels of cognitive skills in this term?
2. What do you think students in general have learned most from the course?

Instructional Assessment
3. How do you evaluate your (scaffolding) strategy of helping students obtain initial understanding of fundamental knowledge and conceptions of the course subject?
4. How do you evaluate your cognitive strategies implemented to facilitate students' higher-order thinking development?
5. How do you evaluate your role in support of building online learning communities among students and between you and students?
6. How do you evaluate your assessment plans practiced in this course?

Emerged Issues
7. Have any issue emerged during the entire term of class activities, such as gender or cultural issues?
8. Have you perceived any issue associated with the technological aspect, including students' technical barriers or the use of the course software?

General Reflection
9. What appears to be your biggest challenge teaching this course this time?
10. What do you consider most successful in helping students learn the course subject?
11. If you will teach the course again in the near future, what might you do differently from this term?
12. Any other comments?

Appendix 4-1. The course syllabus

Syllabus

- Objectives
- Required Textbooks
- Assignments
    - ◇ Discussion Questions
    - ◇ Readings File
    - ◇ Learning Activities Journal
    - ◇ Activism Project and Research Paper
- Schedule
- Important Information
- Course Assessment
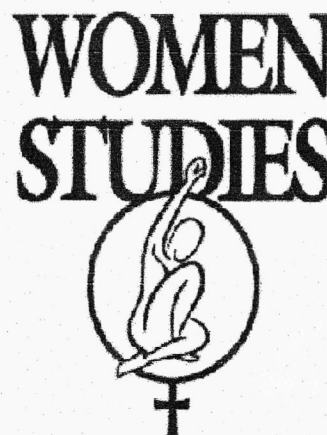
Description

This course focuses on the lives and status of women in contemporary society and explores ways institutions such as the family, work, media, medicine, religion, and politics affect women. The course also gives special attention to issues of race, class, gender, sexual orientation, ability, and age.

WS 223 is also a Difference, Power, and Discrimination (DPD) course in the baccalaureate core. As such, the course focuses on the unequal distribution of social, economic, and political power in the United States. This course should engage you in an intellectual examination of the complexity of the structures, systems, and ideologies that sustain discrimination and the unequal distribution of power and resources in society.

Objectives

As a result of having taken this course, students should:

- Understand the intersections of gender, race, social class, sexual orientation, age, and ability in women's lives
- Understand the ways systems of inequality are constructed around difference and maintained through ideologies and institutions that reinforce the unequal distribution of social, political, and economic power in the U.S.
- Understand the ways gender is learned and performed in the dominant U.S. society
- Be able to identify and analyze the ways gender, race, social class, sexual orientation, age, and ability shape women's experiences in social institutions
- Be able to identify and analyze ways women have resisted oppression
- Explore their own place and participation in systems of domination and subordination
- Be able to envision strategies for change to bring about social justice for all women
- Engage in activism on behalf of social justice for women

Required Textbooks

Susan M. Shaw and Janet Lee. *Women's Voices, Feminist Visions: Classic and Contemporary Readings*. Mountain View, CA: Mayfield, 2001.

Jennifer Baumgardner and Amy Richards. *Manifesta: Young Women, Feminism, and the Future*. New York: Farrar, Strauss, & Giroux, 2000.

Assignments

Discussion Questions 10%

While an online course limits opportunities for face-to-face interactions among class members, the exchange of responses, ideas, and stories is a necessary component of building community within the class. One of the ways this course will facilitate dialogue among class members is through the use of threaded discussions about course topics. Each week, you will participate in a threaded discussion with your classmates. For each chapter in *Women's Voices, Feminist Visions*, discussion questions will be posted. You are expected to make a minimum of three postings per question during the week. You should use your postings to explore ideas, deliberate, and build on your classmates' postings. Your postings should further the discussion, and you should interact with your classmates as they post their responses. If you do not post three times for each question, you will not receive credit for that discussion question.

Readings File 30%

Your online activities will provide opportunities for you to process course content and to construct new knowledge in interaction with your classmates. A great deal of the content of the course, however, will come through the chapter introductions and readings in *Women's Voices, Feminist Visions*.

For 3 readings from each chapter, you will complete an online file card.

- You will submit your file cards to the instructor each Friday afternoon by 4:00 p.m.
- Your file cards will help you understand and analyze your readings by assisting you in identifying each reading's thesis and key points, as well as its intended audience and author's purpose.
- To locate the file cards, click on the " Readings" section of each chapter's menu of activities.

Learning Activities Journal 30%

For each chapter of *Women's Voices, Feminist Visions*, you will select two of the chapter's learning activities. You will find the learning activities by following the link under the "Lectures" button at the left.

These activities will give you the opportunity to use the information you are learning to analyze issues and events related to women's lives and to interact face-to-face with people in your community.

For each learning activity, you will write a minimum of one-half page of response and analysis of the activity in your online learning activities journal.

The activities assignments on the web will give you writing prompts to help you reflect on your experience with the activity. As a form of writing-to-learn, your journal will provide an opportunity for you to process the raw data of your experience with the activity as you construct new knowledge from your experiences. Your journal entries are due by 4:00 p.m. each Friday.

Download Templates

1. Download the Reading File Template AND Journal Entry Template to your hard drive.
   - Right-click (Windows) or Control-click (Mac) and save to your hard drive.
2. Save it with your name studentname>_ch1_readingfile.txt.
3. Add your comments to the template.
4. Submit the completed Reading Files via your Blackboard drop box by 4:00 pm Friday afternoon of the current week.

Activism Project and Research Paper 30%

An important part of feminism is working for change on behalf of women. Your task is to design with your group members an activism project that addresses one of the following issues in your communities:

- feminist consciousness-raising
- date/acquaintance rape
- reproductive choice
- HIV prevention
- domestic violence
- gay/lesbian rights
- sexual harassment
- self-esteem and personal empowerment

Activism projects may include:

- creating and distributing educational materials
- planning and hosting a "Dinner Party" (see *Manifesta* for more on this idea)
- developing a curriculum and leading an educational session for community members
- organizing and facilitating a letter-writing campaign.

For more ideas, see the "Ideas for Activism" boxes in each chapter of *Women's Voices, Feminist Visions*.

Because group members may live in different communities, the group will work together to develop the project and materials, but each group member will conduct the actual activism within her/his community. If group members happen to live in the same community, they may conduct their activism together.

Together with your group members, you will:

1. Select one of the topics listed above for the group to work on to design an activism project that addresses the issue.
2. Once you've decided on a topic, your group will divide the issue into subtopics, and each group member will research various facets of the issue and write a 3-5 page report for the group (including a bibliography) that conveys the information discovered.
3. Reports must be posted to the group's file-sharing page by **October 15** (25 points).
4. Each group member will read the others' reports, and by **October 22** the group should decide on a project to address the problems raised by the information discovered in the reports.
5. On **October 29,** your group should post a detailed plan for conducting your activism project (15 points). The instructor will then provide feedback before you proceed.
6. By **November 5**, your group should post any educational materials, brochures, flyers, handouts, etc. developed for the project (15 points).
7. The actual activism must be completed by **Nov. 19.**

Following completion of the activism project, the group will develop a report that details:

1) what the activism project was, the research data about the issue behind the project (including reference to ideas raised in *Manifesta*)
2) what happened during the activism project
3) what each group members' experiences of the project were
4) what group members felt and learned from the project
5) what the project accomplished

The report should be developed using **PowerPoint slides** and should include photographs from the activism project as well as text. This report will be posted for all students in the class to view and respond to, and so your group should create it with that audience in mind. Reports must be posted on the discussion board by **Nov. 26** (40 points).

Each student should respond to other groups' postings by **Dec. 1,** and group members should engage in dialogue with other students as responses are made (5 points).

Course Schedule

Please note that for Weeks 3, 4, and 5 you should choose to complete one of the chapters listed for those weeks.

- Week 1 Chapter 1 Women's Studies: Perspectives and Practices
- Week 2 Chapter 2 Systems of Privilege and Inequality in Women's Lives
- Week 3 Chapter 3 Learning Gender in a Diverse Society
  - OR Chapter 4 Sex, Power, and Intimacy
- Week 4 Chapter 5 Inscribing Gender on the Body
  - OR Chapter 6 Health and Reproductive Rights
- Week 5 Chapter 7 Family Systems, Family Lives
  - OR Chapter 8 Women's Work Inside and Outside the Home
- Week 6 Chapter 9 Women Confronting and Creating Culture
- Week 7 Chapter 10 Resisting Violence Against Women
- Week 8 Chapter 11 State, Law, and Social Policy
- Week 9 Chapter 12 Religion and Spirituality in Women's Lives
- Week 10 Chapter 13 Activism, Change, and Feminist Futures

Important Information

- University Information
- Academic Regulations
- Avoiding Academic Dishonesty
- Disabilities Services
- Student Conduct

Course Assessment

In chapter 13, the opportunity to evaluate this course is provided with instructions. Please help our teaching staff improve the quality of this course by filling in the evaluation in the Online Student Services area of the OSU web site. Thank you.

Please visit this site developed last year by a WS 223 student for her activism project.

NEXT ○

Appendix 4-2. The DPD requirement in the baccalaureate core

The DPD Requirement in the Baccalaureate Core

We recommend that the following revised narrative and criteria be approved.

Narrative. The unequal distribution of social, economic, and political power in the United States and in other countries is sustained through a variety of individual beliefs and institutional practices. These beliefs and practices have tended to obscure the origins and operations of social discrimination such that this unequal power distribution is often viewed as the natural order. The DPD requirement engages students in the intellectual examination of the complexity of the structures, systems, and ideologies that sustain discrimination, and the unequal distribution of power and resources in society. Such examination will enhance meaningful democratic participation in our diverse university community and our increasingly multicultural U.S. society.

Criteria. Difference, Power, and Discrimination courses shall:

1. be at least three credits;
2. emphasize elements of critical thinking;
3. have as their central focus the study of the unequal distribution of power within the framework of particular disciplines and course content;
4. focus primarily on the United States, although global contexts are encouraged;
5. provide illustrations of ways in which structural, institutional, and ideological discrimination arise from socially defined meanings attributed to difference;
6. provide historical and contemporary examples of difference, power, and discrimination across cultural, economic, social, and political institutions in the United States;
7. provide illustrations of ways in which the interactions of social categories, such as race, ethnicity, social class, gender, religion, sexual orientation, disability, and age, are related to difference, power, and discrimination in the United States;
8. provide a multidisciplinary perspective on issues of difference, power, and discrimination;
9. incorporate interactive learning activities (e.g., ungraded, in-class writing exercise; classroom discussion; peer-review of written material; web-based discussion group); and
10. be regularly numbered departmental offerings rather than x99 or blanket number courses.

Note: the requirements were recommended by Difference, Power, and Discrimination Task Force at the university in their final report of 1999-2000 released on May 4, 2000.

Appendix 4-3. The instructor's first email to the class

Welcome to the online section of Women: Self and Society! Before you begin the class, there are a few things you should know.

First of all, you should expect to spend 8-10 hours per week on the course, just as you would a regular on-campus course. In order to make the threaded discussions most effective, moving through the course together is essential. Therefore, deadlines will be strictly enforced. Each week's assignments (threaded discussion, journals, and reading files) must be submitted no later than the Friday of the week for which they are assigned. We will cover one chapter in Women's Voices, Feminist Visions per week, and each chapter involves discussion, journal, and reading files. During weeks 3, 4, and 5 you will have a choice between two different chapters to cover during those weeks. For specific details, see the syllabus under the Course Information button on the Blackboard site for the course. Other assignments include an activism project and paper. For more information and due dates, refer to the syllabus.

Second, you'll find the primary website for the course by following the link under the "Documents" button on Blackboard. This site provides additional course information and will help you process course content. This is also where you will find the journal and reading assignments. To submit those assignments, follow the directions listed on the website.

Third, the threaded discussion assignment is meant to provide you with a forum to exchange ideas with your classmates and help each other think beyond the obvious. My expectation is not simply that you'll post your answer and then move on. Rather, I expect you to engage with one another, challenging each other's ideas, offering new perspectives, and making the assignment a true discussion with give and take. Of course, I also expect civility and respect in your online communication with one another. The threaded discussion is a great opportunity for us to build community and get to know one another a bit.

Fourth, you'll have a group project for this course that will require online collaboration with your classmates. Each of you will be assigned to a group, and your group will have its own online workspace. Be sure to make contact with your group members as soon as possible to begin planning your project.

Also, this term, our course will be evaluated as part of an OSU Ph.D. student's dissertation. I'll provide you with more information about that process as we move through the term.

Finally, don't hesitate to contact me if you have questions. I'm looking forward to a great learning experience together.

Appendix 4-4. Summary of analysis of students' readings

Student A's Readings

Knowledge / Cognition	1 Remember	2 Understand	3 Apply	4 Analyze	5 Evaluate	6 Create
A Factual						
B Conceptual						
C Procedural						
D Meta-Cognitive						

Student B's Readings

Knowledge / Cognition	1 Remember	2 Understand	3 Apply	4 Analyze	5 Evaluate	6 Create
A Factual						
B Conceptual						
C Procedural						
D Meta-Cognitive						

Student L's Readings

Knowledge / Cognition	1 Remember	2 Understand	3 Apply	4 Analyze	5 Evaluate	6 Create
A Factual						
B Conceptual						
C Procedural						
D Meta-Cognitive						

Student S' Readings

Knowledge / Cognition	1 Remember	2 Understand	3 Apply	4 Analyze	5 Evaluate	6 Create
A Factual						
B Conceptual						
C Procedural						
D Meta-Cognitive						

Remark: the darker the shade, the greater extent of engagement

Appendix 4-5. Summary of Analysis of Students' Journals

Student A's Journals

Knowledge / Cognition	1 Remember	2 Understand	3 Apply	4 Analyze	5 Evaluate	6 Create
A Factual		(shaded)	(shaded)			
B Conceptual		(shaded)	(shaded)			
C Procedural		(shaded)	(shaded)			
D Meta-Cognitive						

Student B's Journals

Knowledge / Cognition	1 Remember	2 Understand	3 Apply	4 Analyze	5 Evaluate	6 Create
A Factual	(shaded)					
B Conceptual	(shaded)					
C Procedural	(shaded)					
D Meta-Cognitive						

Student L's Journals

Knowledge / Cognition	1 Remember	2 Understand	3 Apply	4 Analyze	5 Evaluate	6 Create
A Factual		(shaded)	(shaded)			
B Conceptual		(shaded)	(shaded)			
C Procedural		(shaded)	(shaded)			
D Meta-Cognitive						

Student S' Journals

Knowledge / Cognition	1 Remember	2 Understand	3 Apply	4 Analyze	5 Evaluate	6 Create
A Factual	(shaded)					
B Conceptual	(shaded)					
C Procedural	(shaded)					
D Meta-Cognitive						

Remark: the darker the shade, the greater extent of engagement

Appendix 4-6. Summary of Analysis of Students' Discussions

Student A's Discussions

Knowledge / Cognition	1 Remember	2 Understand	3 Apply	4 Analyze	5 Evaluate	6 Create
A Factual						
B Conceptual						
C Procedural						
D Meta-Cognitive						

Student B's Discussions

Knowledge / Cognition	1 Remember	2 Understand	3 Apply	4 Analyze	5 Evaluate	6 Create
A Factual						
B Conceptual						
C Procedural						
D Meta-Cognitive						

Student L's Discussions

Knowledge / Cognition	1 Remember	2 Understand	3 Apply	4 Analyze	5 Evaluate	6 Create
A Factual						
B Conceptual						
C Procedural						
D Meta-Cognitive						

Student S' Discussions

Knowledge / Cognition	1 Remember	2 Understand	3 Apply	4 Analyze	5 Evaluate	6 Create
A Factual						
B Conceptual						
C Procedural						
D Meta-Cognitive						

Remark: the darker the shade, the greater extent of engagement

Appendix 4-7. Summary of Analysis of Students' Research Paper

Student A's Research Paper

Knowledge / Cognition	1 Remember	2 Understand	3 Apply	4 Analyze	5 Evaluate	6 Create
A Factual	(shaded)	(shaded)		(shaded)		
B Conceptual	(shaded)	(shaded)		(shaded)		
C Procedural	(shaded)	(shaded)		(shaded)		
D Meta-Cognitive						

Student B's Research Paper

Knowledge / Cognition	1 Remember	2 Understand	3 Apply	4 Analyze	5 Evaluate	6 Create
A Factual	(shaded)	(shaded)				
B Conceptual	(shaded)	(shaded)				
C Procedural	(shaded)	(shaded)				
D Meta-Cognitive						

Student L's Research Paper

Knowledge / Cognition	1 Remember	2 Understand	3 Apply	4 Analyze	5 Evaluate	6 Create
A Factual	(shaded)	(shaded)		(shaded)		
B Conceptual	(shaded)	(shaded)		(shaded)		
C Procedural	(shaded)	(shaded)		(shaded)		
D Meta-Cognitive						

Student S' Research Paper

Knowledge / Cognition	1 Remember	2 Understand	3 Apply	4 Analyze	5 Evaluate	6 Create
A Factual	(shaded)					
B Conceptual						
C Procedural						
D Meta-Cognitive						

Remark: the darker the shade, the greater extent of engagement

Appendix 4-8. Activist profile in Chapter 12 – Nannie Helen Burroughs

ACTIVIST PROFILE:
NANNIE HELEN BURROUGHS

Nannie Helen Burroughs was only 21 years old when she delivered her stirring speech, "How the Sisters Are Hindered from Helping" at the 1900 National Baptist Convention in Richmond, Virginia. This speech proved to be instrumental in the formation of the Women's Convention Auxiliary to the National Baptist Convention, the largest African American women's organization in the country at that time. The Women's Convention promptly elected Burroughs its corresponding secretary and continued to re-elect her every year from 1900 to 1948. In 1948, she became the convention's president and served in that role until her death in 1961.

Burroughs was also a tireless activist—challenging lynching and segregation, denouncing employment discrimination, opposing European colonization of Africa, and promoting women's suffrage. After the Nineteenth Amendment was passed, she founded the National League of Republican Colored Women and worked to encourage African American women to become politically involved. She also established the Women's Industrial Club, which offered short-term housing to African American women and taught them basic domestic skills. The club also offered moderately priced lunches for downtown office workers. During the Depression, Burroughs formed Cooperative Industrial, Inc., which provided free facilities for a medical clinic, hair salon, and variety store.

One of Burroughs's driving passions was the education of African American women. In 1909, with the support of the National Baptist Convention, she opened the National Trade and Professional School for Women and Girls in Washington, DC, and served as the institution's president. The school emphasized a close connection between education and religion. Its curriculum focused on the development of practical and professional skills and included a program in Black history in which every student was required to take a course. Burroughs's motto for the school was "We specialize in the wholly impossible." In 1964, the school was renamed the Nannie Burroughs School. In 1975 Mayor Walter E. Washington proclaimed May 10 Nannie Helen Burroughs Day in the District of Columbia in recognition of Burroughs's courage in advocating for education for African American women despite societal norms.

Appendix 4-9. Comparison of Student A's and Student S' journals

Student A's journal in activist profile - Burroughs

Activity: Burrough's various contributions toward civil rights and equality

Ms. Burroughs went through a lot of obstacles due to discrimination and no equality, but that did not stop her from becoming one of the greatest contributors to the African and Women Movements. When having an urge to become a domestic science teacher so that she could offer women professional training that might help them earn a higher salary and afford better living conditions that she was shorn of she was denied the opportunity to do so. This inspired her greatly to establish an all-girl school with a good curriculum and most importantly a fair chance. At an annual meeting of the National Baptist Convention in Richmond she boldly argued for the right of women to participate equally in the missionary activities noted in her speech. The Woman's Convention, Auxiliary to the National Baptist Convention was organized and primarily worked to raise money for the missions, which provided food, clothing, housing, and educational opportunities for poor people in the United States and around the world. She publicized their cause nationwide in letters, articles, and speeches and opened the doors of the National Training School for Women and Girls. She believed it was her duty to see that an industrial and a classical education be attained at the same time. A stickler who found grammatical errors physically painful, she required courses on a high school and a junior college level and developed language skills. And, in 1975, in recognition of her courage and wisdom in espousing education for Black women against the consensus of society, Mayor Walter E. Washington proclaimed May 10th Nannie Helen Burroughs Day in the District of Columbia. Ms. Burroughs achieved so much for a lot of women and I truly admire that!

Student S' journal in activist profile - Burroughs

Activity: discuss Burrough's various contributions toward civil rights and equality.

Burrough had various contributions towards civil rights and equality in her time. Some of her most notable work consists of her tireless activism. At the ripe age of 21 she gave a speech that was instrumental in forming the Women's Convention Auxiliary to The national Baptist Convention. As well as beginning this movement, she also challenged lynching, opposed European colonization of Africa, and promoted women's suffrage. She also established the women's industrial club - which was a club that provided housing to African American's and gave them an opportunity to learn some basic domestic skills. The Women's Industrial Club also gave workers the opportunity to purchase moderately priced lunches.

Burrough had strong conviction and passion for the education of African American Women. In 1909 she opened the National Trade and Professional School for Women and Girls in Washington, DC. This was such a profound school and made such a huge difference with Burrough's contributions that the mayor proclaimed May 10 Nannie Helen Burroughs Day.