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Working Together: The Context of Teams in an Online MBA Program

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Abstract

The purpose of this study was to explore learning in an online MBA program and the structures necessary to support and enhance that learning from the perspective of the learners. This qualitative study was multi-method in nature, and included in-depth interviews (the focus of this report) with ten of the 32 learners who participated in the study, as well as a document review of course transcripts. Findings indicated that the collaborative nature of the teamwork required in this web-based MBA program provided major benefits as well as challenges for the learners in this program. Benefits included decreased feelings of isolation, the development of support systems, authentic "real world" learning, and an improved

ability to communicate clearly online. Challenges included learning how to deal with the different learning styles, academic goals, and varying time commitments to the program of various team members. Learners recognized the pace of the online work, the requirements for technical competence, and the need for alternative communication links as other factors in their learning experience. Learners also identified a strong perception of academic efficacy, and an affirmation of their own individual growth and development through their work in the online MBA program.

Résumé

L'objectif de cette étude était d'explorer l'apprentissage dans le cadre d'un programme de MBA en ligne, ainsi que les structures nécessaires afin de soutenir et de rehausser cet apprentissage du point de vue de l'apprenant. Cette étude qualitative se proposait d'utiliser plusieurs méthodes et comprenait des entrevues approfondies (le point central de ce rapport) avec dix des 32 apprenants qui ont participé à l'étude, ainsi qu'une revue documentaire des transcriptions du cours. Les conclusions ont démontré que l'aspect coopératif de l'équipe nécessaire à ce programme de MBA sur le Web a apporté des avantages considérables, mais a également posé des défis aux apprenants du programme. Parmi les avantages, un sentiment d'isolement moindre, le développement de systèmes de soutien, un apprentissage dans l'authentique « monde réel » et une meilleure capacité à communiquer

clairement en ligne. Parmi les défis, apprendre à s'adapter aux différents styles d'apprentissage, aux différentes ambitions académiques et aux différents investissements de temps des différents membres de l'équipe du programme. Les apprenants ont reconnu que le rythme du travail en ligne, les exigences en termes de compétence technique et le besoin de liens de communication alternatifs étaient des facteurs différents dans leur expérience d'apprentissage. Les apprenants ont également eu une forte impression d'efficacité académique et ont vu l'affirmation de leurs propres croissance et développement individuels par l'intermédiaire de leur travail dans le cadre du programme de MBA en ligne.

Introduction

Universities are currently being challenged to develop the capability of offering courses and entire programs online. With the advent of the World Wide Web (WWW), the potential for learner access to a wide variety of courses for credit has expanded exponentially. The possibility of learner participation at any time and at any place has resulted in increased equity of access to higher education (Carr-Chellman, Dyer, & Bremen, 2000). Universities have developed a number of different contexts in which online education is offered (Nachmias, Mioduser, Oren, & Ram, 2000; Schrum, 2000). Because of the recent nature of this form of learning, the pedagogy of online learning is still emerging.

Khan (1997) suggests that "Web-based instruction (WBI) can be viewed as an innovative approach for delivering instruction to a remote audience, using the Web as the medium" (p.5). Web-based instruction offers a unique potential for an interactive learning environment that is available to learners at any time and any place. Course syllabi, activities, quizzes and learner presentations can be accessed via the learner's own computer (Bostock, 1997). The challenge for universities is to develop programs and courses that truly make use of the interactive potential of the WWW (Katz, 1999). Many courses currently available via the WWW simply offer access to course notes and course syllabi. This situation allows learners to access their course from any computer that has an Internet connection, yet does not make effective use of the interactive potential of learning online. Courses and programs which have interactivity built in to their structure allow learners to communicate with one another online, and to build a community of learners in the context of their course (Hill, 1997; Kanuka & Anderson, 1998; Schrum, 1998).

Researchers have begun to explore learning in web-based contexts from the learners' perspectives (Burge, 1993; Eastmond, 1995; Gabriel, 1999; Gunawardena, Lowe & Anderson, 1997). Learning styles, perceptions of efficacy, learner concerns, requirements for effective learner support are being described in the literature. WBI presents the possibility for developing effective, online learning environments which meet learners' needs. However, as Kaye

(1991) cautions, "Networked communities capable of supporting and nurturing successful learning collaborations do not just arise spontaneously within the electronic webs and circuits linking their members. Like other communities, they require active and planned involvement within a context of shared goals, interests, and commitments" (p.22).

Professional programs such as Master of Business Administration (MBA) programs have traditionally depended on collaboration and interactivity in the context of learning. MBA activities often revolve around authentic learning activities such as case studies. Learners are frequently organized in collaborative teams to work with these cases and apply the results to real world situations and problems. Web-based instruction offers a potential educational environment well-suited to authentic, collaborative learning (Benbunan-Fich & Hiltz, 1999; Berge, 1998; Kearsley, 2000; Paloff & Pratt, 1999; Stacey, 1999).

The Context

The purpose of this study, a component of a larger research project, was to explore learning in an online environment from the learner perspective. This research focused on two questions: How do learners describe their experience of learning in an online MBA program? What structures support and enhance that learning? These questions could best be examined by conducting qualitative semi-structured in-depth interviews with participants, as well as by reviewing

participants' written communications in the MBA course. These methods of data collection allowed the researchers to explore the participants' assumptions, beliefs, and practices about learning online in the context of their own spoken and written communications.

The current paper explores learner perceptions of learning in the context of an MBA program, which was developed to utilize the interactive potential of the World Wide Web. When learners communicate online, a number of factors impact on the quality of the learning experience, including interactivity, course organization, group vs. individual work demands. These factors all have an effect on learners' perceptions of their learning experience, and are explored in this research article.

The university MBA program in this study is situated in Western Canada, and learners are required to participate in three, three-week residencies. During each of these residencies, a cohort of learners lives, works, and learns together. Learners take three courses during each of the residencies. The workload during the residencies is both individual and group. The groups in this program are developed in various ways: during the first residency, learners are placed in generalist groups and the focus is on learning to work together face-to-face. It is conceptualized that this face-to-face contact and group work will allow learners to develop skills and familiarity with one another, which will later

facilitate the online group work. After the second residency, learners form themselves into groups according to their area of specialization-possibilities include human resources, digital information, executive management, and public relations. The online courses which follow this residency allow learners the opportunity to pursue their own area of interest with other group members who share that interest. The third residency allows learners to debrief their course work experiences, and share information regarding their major project/thesis. Courses in the program differ in the amount of online group work required. Work for some courses is almost all completed in groups, while other courses emphasize individual assignments.

There are varying amounts of support demonstrated by the companies toward their employees who choose to enroll in this graduate degree. Some companies allow learners to do some of their course work on company computers during work hours. Others facilitate the departure of the learners for the three-week residencies, assuming this study will bring added value to the company. These companies give their employees time with pay to pursue their graduate degrees. Other companies allow their employees to take leave without pay to attend the residency, while yet others require learners to use vacation time to attend the residency.

Methods

Learners in the Research Project

Participants in this research study included learners enrolled in the online MBA program. The cohort of learners involved in this study totaled 50 individuals. All 50 learners received an e-mail letter posted by the researchers invited their participation in the research project. The email letter was followed by a face-to-face meeting with a research associate during the learners' residency. At that time, a hard copy of the introductory letter and the informed consent form were distributed to the entire cohort. The 32 learners who agreed to participate signed and returned the informed consent form.

Learners represented management positions in a number of different work contexts: private companies, government, and higher education. Almost all of these learners chose to continue working while pursuing their MBA degree, even though the program was conceptualized as a full-time program, with two fairly demanding online courses offered each semester. Learners found that the course-load requirements varied from course to course. They also found that the time requirements during different semesters varied according to their own experience and expertise.

The entire cohort was about mid-way through the MBA program when the interviews were conducted. Learners had attended two residency sessions, and had completed four online courses. They had all participated in an initial generalist small group composed of members from different concentrations, and they were in the process of working in

their second small group, composed of members taking the same concentration. None of the participants in the interviews had known any other learners before beginning their program.

Data Collection and Analysis

In order to explore learners' experience in an online course, data collection included in-depth interviews and document review. First, researchers read and coded conference notes posted by the 32 learners in the study, and our findings from this component of the study have been reported elsewhere (Lees, Gabriel, Farres & MacDonald, 2002).

The primary method of data collection in this component of the study involved telephone interviews with individual learners. These qualitative in-depth interviews facilitated the exploration of learner perceptions of their online experience, including the effectiveness of the MBA program. Individual telephone interviews facilitated the gathering of more complete, richer data. Telephone interviews also permitted the researchers to follow up on learners' comments, and develop a more complete understanding of their perceptions of learning in an online environment. Qualitative interviews conducted by telephone have been reported in a number of studies (Burge, 1993; Gabriel, 1999).

Ten of the thirty-two learners in this study were invited to engage in telephone interviews. Two of the researchers working on this project developed individual lists of ten

potential candidates who would be invited to participate in these interviews. Learners were chosen to represent as wide a range of gender, experience with online learning, and various course groups as possible. Eight learners appeared on both lists, and these learners were confirmed as interviewees. The researchers then chose two of the other four learners listed who best met the criteria mentioned above. Interview participants were from two Canadian provinces and one American state and included six women and four men.

The interview protocol was developed to encourage participants to share their own perceptions of learning online. Therefore the guide was very open-ended; interviewers utilized probes to follow up learners' comments in areas of research interest. The telephone interviews were arranged at the convenience of the learners. Interviews were audiotaped with the use of a telephone recording device. The interviews lasted from 45 to 65 minutes, and the audiotapes of the interviews were transcribed. These transcriptions were shared with the learners, who were invited to make any necessary corrections for clarity or accuracy. Minor grammatical revisions were requested by one participant.

The researchers read and reread the interview transcripts to identify emerging patterns and themes. Paragraphs were chosen as text units for data analysis. As patterns began to emerge from the reading, text units were copied and pasted into new word processing files, with the original identifying

information attached. This allowed researchers to return to the original transcript to check for understanding. Memos were written on decisions regarding the coding of the text units. A number of text searches were also performed on the interview transcripts to assist in the coding process. Throughout this process, categories were developed and patterns and themes were coded, compared, sorted and analyzed (Lincoln & Guba, 1985). The researchers also used data displays and summary tables to assist in the exploration of the data (Miles & Huberman, 1994).

The strongest theme that emerged from the analysis of the research interviews was "working in virtual teams". The learners also identified their personal and academic growth, a number of stressors encountered in online learning, and the need for alternative means of communication as issues that were of concern to them in their online learning. A discussion of these themes follows.

Findings and Discussion

Interview Themes

The participants in this research project identified a number of issues that emerged for them within the context of online learning. The major theme that emerged centered on interaction with other learners and on the benefits and challenges of working in teams. Other themes that arose included the challenges of time, technology and workload constraints; the need for "fuller" communication options; and

learners' personal development and growth of self-esteem.

University Expectations Surrounding Teamwork

Learners enrolled in the university's online MBA program were expected to learn in teams. During the two-year MBA program, learners worked in two different sets of teams. The first set of teams was composed of learners who had registered in different streams of the degree: public relations, human resources, executive management, or digital information and finance. These teams were formed during the first residency at the very beginning of the program. Learners worked together in a face-to-face environment on projects and course assignments before being required to work together online. These first teams continued to work together for the first half of their program. When learners came together for the second three-week residency, they first completed their work with their existing teams, and then chose new teams composed of other learners in their specialty, with whom they would work for the second half of the program. Teams were composed of four or five members. Learners worked together on two online courses in each term. Team members were expected to come together online, support each other's learning, and produce papers and assignments which they then posted online to the course newsgroup.

During their first residency early in the program, university faculty taught a number of the skills required to learn effectively online: a) netiquette, b) individual learning styles,

and c) how to function in a team. A comprehensive guide to the rules of polite communication (netiquette) was provided on the university website. Learners were directed to read and apply these guidelines within the context of their own work. For example, they learned how to communicate more clearly and effectively online. Learners also discussed the importance of staying in touch and maintaining contact as their course-work progressed.

The university organized an exploration of learning styles of the learners, so that team members could grow in their appreciation of how others on their team worked and learned.

The fact that we had varied experiences and the fact that we bring different strengths to the table, and also very different personalities, was pretty amazing to see that we still managed to mesh. You know there's been a few trials and tribulations, but once we got past that then we were able to mesh and be able to work efficiently as a team. (JK Interview, May 11, 2000)

Various team-building exercises were also included during the first residency. The team-building exercises provided learners with the concepts and language they needed to discuss issues subsequently within their virtual teams. "We had the opportunity to work together as a team before we left campus after our first residency so we knew where each of our strengths and weaknesses lay, and compensated for each other" (KB Interview, May, 20, 2000). By actually working in teams, learners learned how to become sensitive to each

other's strengths and allow each member to contribute to the work of the team. Learners agreed that the forming of the teams in a face-to-face environment was critical for team success.

In addition to team-building, the university faculty spent course time during the first residency helping learners understand some of the challenges of working in virtual teams. Information on working effectively in online teams was also provided on the university's web site. After face-to-face work during the residency, learners understood that if difficulties arose within the team, they were expected to work the situation out to everyone's satisfaction. The university communicated the strong expectation that these Master's level learners would be able to cope satisfactorily with any team-related issues that might arise. Initially, the learners agreed that this appeared to be a reasonable expectation. However, several situations arose within particular teams causing members to question this pedagogical stance.

Learners' Lived Reality of Teamwork

In this program, the focus on team learning appeared to help learners break down the isolation of learning by distance. Learning by distance, if accomplished via the web, can facilitate the development of support systems. These support systems were essential for learners as they addressed the challenges of their MBA program.

Effective teams often agreed to a set of ground rules that would govern how the team operated, for instance, "...making sure that we stay in contact with each other and at the very least that we would check our e-mail messages and respond accordingly" (NW Interview, May 10, 2000). In many of the teams, if a member was experiencing a particularly difficult or demanding time, other members of the team would agree to carry an extra load until the challenged member could fully participate and contribute once more.

Members from a number of different teams found that even though they had learned (or already possessed) the skills of working together in teams, the online environment did not work the same as a face-to-face environment. "I'm a believer in the possibility of teams and I've seen more and better teamwork during the residency than I have online" (JP Interview, May 18, 2000). Teams online required more time, energy and effort to work. It took longer to make decisions as a team, since members had to wait until all of their colleagues on the team went online and posted their opinions. More time was also required to get to know and trust each other in the online environment. "You need to bond a bit, find out how everybody ticks" (BT Interview, May 16, 2000).

One learner suggested that the teams were not so much working teams as they were learning groups. The work that the teams had to accomplish was in actuality a "learning output" and not a "deliverable". Because of the background of

many of the learners who worked in business or government organizations, course assignments seemed to be treated as deliverables. But the situation, though similar to team work in the real world, was not equivalent; a learning context is different from the context of corporate culture. Teams at work "already have a set of ground rules that you have agreed to work by. There's decision making processes, there's managers, there's like a management system…you're there to create a set of deliverables… and people come together to do that" (ET Interview, May 17, 2000).

In the online courses, learners working in teams are expected to support and learn from each other: "We're there to enable each others' learning" (ET Interview, May 17, 2000). There is a subtle, but real difference. Learning groups are not competitive; the goal is to facilitate and support the learning of all. "I like the team concept, because I think it has certainly enhanced the learning, you know, as we work together and people try to explain things" (JK Interview, May 11, 2000).

Learners developed strategies for effective work online which allowed them to accomplish the required learning tasks. Some were surprised at the quality of the outputs _projects, logos, marketing plans, position papers_and at the learning which could take place online. "It's been a real good experience getting to know my team-mates… a lot of the time we spend online, you think they are sitting right beside you, they are a good support system for you" (SN Interview, May 18, 2000).

I was really surprised at how projects could be put together…
I probably had some questions about whether you could work
over the Internet and put project and team assignments
together, but that to me is pretty clear now that it can be
done…And that was enlightening to me." (SN Interview, May
18, 2000)

Challenges of Working in Teams

Although the university offered information during the
face-to-face residency regarding different learning styles and
the skills required to work in teams, nevertheless there were
significant challenges for learners as they worked in their
online teams. Learners in the program were prepared very
differently both academically and technologically for their
work online. Learners had different personal goals, learning
styles, and varying time commitments to the program.
Learners also differed in their willingness to function as team
members rather than as individuals.

Several teams discovered that their members had quite
different ways of approaching tasks and accomplishing work.
Some members learned in a linear, sequential fashion, while
other learners preferred a more holistic approach. Some
learners handled ambiguity well, while others preferred to nail
things down. Some learners found they required more
feedback from professors, while other members of the team
could cope with much less. Issues of individual differences
were addressed during the residencies, however, oftentimes

the real differences did not surface until learners were back home working on various tasks and assignments for the next course. Then learners had to work out an acceptable way of handling the differences for themselves. One learner identified his growing understanding of group dynamics as an important personal learning: "How people have different learning styles, different learning curves, and how to adapt to those. And not only that, but how to function in a team" (SN Interview, May 18, 2000).

The electronic MBA program was conceptualized as a full-time program. However, the majority of learners took it part-time, while continuing to work full-time. This situation placed an enormous demand on learner time. The university suggested that learners should anticipate spending approximately 20 hours per week on their courses. In actual fact, learners found themselves spending between thirty and forty hours per week on their courses. Communication with other members of the team took hours each week, in addition to individual reading, completing the individual assignments, and responding and developing group assignments. This concentrated effort did have a major payback, however, in that learners were able to complete their MBA, including a major project/ thesis in a two-year time frame. However, "There are limitations on your time with regards to the time you spend with your family" (SN Interview, May 18, 2000). A majority of learners reported that they had reduced time to spend with their families, as well as little to no time to spend socializing with friends. "What you

don't have is any idea of what that [time commitment] really means… what it's going to mean in terms of your relationship with your partner and your children depending upon what age they are" (KB Interview, May 20, 2000). "I'm finding the pace quite hectic, I guess, you know, just the number of assignments and the kind of reading… It's not easy to balance with a very busy job… it's daunting" (JK Interview, May 11, 2000).

The commitment that learners had to the process of learning together online was a challenge faced by members of the various teams. Learners who worked full time at demanding jobs reported that they did not have as much time as they would like to dedicate to their learning. On one team, a member stated that her own work came first, and the work of the team came second. This attitude can cause consternation among other members of the team if they are dependent on that member for getting a component of the assignment done at a particular time. A number of learners constantly traveled with their work, and accessed their course via the Internet from wherever they found themselves. However, this interaction might not occur as frequently as if they were working from home. Occasionally a team member might go missing for awhile. "And that's because he or she was experiencing either some work-related problem or some family-related problem" (NW Interview, May 10, 2000). Learners in the program had to find how they could balance all of these commitments, and still accomplish the work that

was required in the two online courses each term. Working in teams takes a greater time commitment than simply doing the work on an individual basis. Working on a joint project or paper takes time as various drafts are shared and revised by various members of the team. One skill that team members had to develop was "learning to read between the lines. Looking for that team member who is maybe faltering but doesn't admit it _ who needs help but they won't say it" (YM Interview, May 19, 2000).

Although all the learners interviewed had great commitment to the program and to their own team, learners did mention the pressure of depending on others in order to get the work done. Differing attitudes toward the work to be accomplished might cause pressure. For example, some team members were satisfied to strive for a B grade, while others wouldn't be satisfied with anything less than an A grade.

So if I feel that I want to aim for an A grade for example, but other team members are not aiming for that, then I might never be able to achieve that A grade even if I put in 110% effort… I had to remind myself that this isn't a program that I am doing by myself and that it is structured so that it is team-based. (NW Interview, May 10, 2000)

Several participants mentioned their concern about other learners on their team who "slacked off", and left more work for other members of the team to complete. "We tried our hardest to keep everybody on task and connected and that

kind of thing. But it definitely added a layer of frustration to the experience" (GM Interview, May 12, 2000).

The university's training on group dynamics, different learning styles, and working together online was useful, but did not prepare learners for the difficulties which various teams encountered. Several situations arose which were extremely difficult for the team members to deal with.

It's difficult for teams to deal with something that is out of the norm, like an addiction problem, plagiarism, those kinds of things that are unusual. I mean, your normal, everyday dysfunctional team stuff you can deal with that, you can do that. (YM Interview, May 19, 2000)

In one case, a learner was verbally abusive to another student, to the point where the learner felt "harassed". In another case, one learner developed heightened expectations which he attempted to place on all of the members of his group. When others in the group did not acquiesce with his demands, he refused to continue to work with his team. Other groups were asked if they would permit this individual to join their group, but none agreed. Learners in this study were aware of these major difficulties that several teams had faced. Four learners called for help from the university in resolving these problems by providing a person who could be a "team counselor", someone who was trained in dealing with team issues. The learners believed that these were problems that could not be solved satisfactorily or effectively online by the group itself.

These four learners suggested that people who were experiencing these difficulties in working within the team receive counseling from the university in a face-to-face format.

The pace and volume of the work done in the residencies was also a challenge for learners. They completed three courses in three weeks_ in order to accomplish that workload, learners were working day and night on individual and team assignments. In this particular cohort as well, there was no break between the residency and beginning the next course online. Learners found that this lack of time off was very difficult, due to the volume of work expected. Participants reported feeling exhausted, with no space of time or place to recharge their batteries.

Challenges of Pace and Technology

Learners identified further challenges they met during their work in the MBA program, including a) the pace of the program; and b) technical challenges. Learners reported their excitement about learning and applying what they were learning to their workplace. But there was a challenge with the pace of learning; "the only downside is that because of the pace… at times I feel I could be learning more. But there's no time to dilly dally and focus in on a thing… I think that hinders the learning" (JK Interview, May 11, 2000). Another learner pointed out: "I think it's almost like crammed learning. I don't think there's been enough time to really absorb it. I can hardly

wait to get it over with so I can go back and read it and just absorb it" (YM Interview, May 19, 2000). In spite of the challenge of learning so much in a little time, learners found an unexpected benefit from dealing with the volume and pace of the workload in their courses. They reported that they became much more efficient in their use of time. "Certainly learned time management through this! You learn to juggle a lot of things at one time" (YM Interview, May 19, 2000). One learner found that even though he had less time to actually spend with his clients while he was working on the electronic MBA, his productivity actually went up. "My revenue has actually increased… it's learning to balance everything, schedule things" (BT Interview, May 16, 2000).

In addition, the pace of the program allowed no time to be sick. Learners could not afford to be sick with the flu or have any health problems, because of the impact that their absence would have on the work of their team. " There was no time to be sick. No time for any real crisis and let's face it, that's life. And so it made it very difficult on people… At one point on my team, everyone was sick except me" (JK Interview, May 11, 2000). Some learners underlined the fact that there was no time to attend to the little emergencies of daily life.

You know, you have the best of intentions. "I'm going to sit down on Saturday and I'm going to get through all of this and I'm going to write the paper on Sunday and I'm going to post it." And then the system goes down, or I'm paged for a media

relations call, or one of my kids is in crisis, or somebody else on the team has to leave to go to a funeral somewhere, or whatever… How do we have patience and grace around these things we call lives, in the middle of this program, so we're not so harsh on each other and on ourselves?" (JP Interview, May 18, 2000)

To complete the program successfully, learners had to develop strategies to accommodate these everyday needs.

Some learners who came into the program were very adept technically. A number of learners used technology in their work, and felt very comfortable getting online, posting messages and assignments, and getting feedback from other team members and from the instructors. Technology was a challenge for other learners, however. The challenges ranged from not being able to access the course, to having trouble with Internet providers, to having difficulty installing the software on their hard drives that allowed them to access the newsgroup messages. These are challenges faced by all learners who choose to take courses online. Different operating systems, different hardware and software configurations pose challenges to learners who are beginning life as online learners. One learner reported that she had been off-line as many as six consecutive days because of her computer and Internet provider at home (JP Interview, May 18, 2000). Another learner said that the most challenging aspect of his entire MBA experience had been learning about

computers.

Before I started I knew how to turn one on. And I knew how to click the mouse. And that's about it! … It was a little frustrating, I think. What was wonderful, with the team make-up, you have someone that was from an IT background. Because she could say, `Well, look, here's what you need to do.' (BT Interview, May 16, 2000)

Multiple Modes of Communication

As the learners in the electronic MBA course worked online, the university provided a virtual workspace with several different components: (1) The course assignments were listed on the course website, which learners read online or downloaded to their personal computers. (2) Learners were given access to course newsgroups. These were conceptualized as the online spaces where the learning teams conducted their work virtually, developed their assignments, built on each others' contributions, and finally posted the finished product for marking. Each team had its own work-space reserved for that team alone. Only team members and the course instructor could access the individual team areas. (3) When assignments were completed, they were posted to a team "drop box" which was a reservoir for the team's assignments and for instructor replies to the work. (4) There was also a cohort chat area, where all of the learners in a particular cohort could chat with each other online. The course instructor also had access to this synchronous chat

workspace. The website, newsgroups, drop boxes, and chat areas were all developed in-house by the university.

Learners utilized all of these various online links to communicate with each other. However, members of several groups reported that the most effective means of communication was via private e-mail, which allowed them to chat with one another, without instructors or other learners reading the notes. "The channels of communication were through e-mail" (NW Interview, May 10, 2000). These notes could be copied to all of the members of the group. Much of the work of developing the assignment would actually be done "behind the scenes", and then other components of the assignment would be developed via the newsgroup, so that the instructor could see that the group was actually communicating and working together.

Another communication strategy used was teleconferencing. "We find ourselves with our computers booted up onto the course, but we've also found that working with the telephone at the same time has been the right combination for us" (JK Interview, May 11, 2000). All of the groups used the telephone for communication, though some depended on it more than others. Learners made sure they had the least expensive long distance package possible. Some groups had weekly teleconferences; others held a bi-weekly conference; while others only teleconferenced twice during the semester. Learners who teleconferenced weekly felt that this strategy

allowed the entire group to work together more effectively, because there were not so many lags in the communication loop.

Many learners found the chatroom provided for their course slow and difficult to read. Learners reported that they glanced at the chatroom to look at/participate in the discussion occurring there occasionally. However, learners did not use the chatroom provided within their online course consistently because of the time required for inputting ideas and responding to others' comments. Some groups also tried the synchronous capabilities of ICQ (I Seek You, Internet-based chat). If two or three members were discussing an issue, the thread of thought could often be followed. However, learners found that if four or five group members joined in the discussion, it became an unwieldy form of communication.

When learners attempted to communicate in real time, when engaging in a teleconference or in a chat room discussion, time zones had to be taken into account. Some groups had time zone differences of four hours to cope with. However, most groups seemed to be able to find a time that would work for the group. Crossing the time zone gap was not an issue for the learners in this electronic MBA program.

A number of learners in the program lived in the same area of the country _ some in the same city. Occasionally these learners would meet together face-to-face to work on an assignment. If the team had a member who lived in another

area, they would include that learner in the group meeting by a conference call. The links among the participants in this research study were strengthened by the multi-modal nature of the communications they shared. If one particular form of communication was not working at the time when the group planned to "meet virtually", the team utilized another form of communication, and work could continue to progress.

Personal Development and Growth of Self-Esteem

When learners discussed what they had learned during their online MBA program, many stressed their own personal and professional growth. They underlined the importance of the program for themselves as people as well as learners. They described how their accomplishment in undertaking this major learning task affirmed them as individuals. "It just gives me the confidence to try different things (KB Interview, May 20, 2000).

It's given me an added boost of confidence, I think, to know that I can manage quite an unmanageable workload… I know I'm enjoying things and I'm learning things… I've really been pushing myself to practice and apply pretty much everything I'm doing. (GM Interview, May 12, 2000)

A number of learners spoke about the message in a talk they heard at the beginning of their program _ the notion that they would be changed people by the end of the program. Some of the participants shared that upon reflection, they could

discern the changes that were taking place in them as people, as professionals and as members of families. One learner stated that "a Master's degree is not a chore, it's about learning. And I'm seeing myself growing as a person and also learning quite a bit from other students and trying to work with other students" (SN Interview, May 18, 2000). A learner who had not returned to school for many years mentioned that, "for me it was affirmation… affirmation that I could do it. Affirmation that my writing skills are okay. And then the other part is just the learning - because I have learned things!" (YM Interview, May 19, 2000). "And I'm going from course to course, doing the program, getting the feedback, getting the grades and so on. And knowing that I'm doing really well. Yes, that's been satisfying" (NW Interview, May 10, 2000). One learner pointed out: "I feel that I am getting rounded out experience about business, so that has been very rewarding for me" (ET Interview, May 17, 2000). And finally, "I'm getting excited about my future and my possibilities. Being involved in the program has done that. It's just bumped up my self-esteem in a big way" (JP Interview, May 18, 2000).

Involvement in an online MBA program has allowed participants to learn more than only content area knowledge. Participants report an increase in self-confidence, a growing sense that completion of the MBA is an affirmation of their own capabilities. Learners report that they are capable of stepping forward and taking the initiative in their corporations, business and government agencies. "I think working on a

degree… gives me a lot more confidence. It's inspired me to want to do more… It's also given me a greater level of confidence in my job" (KB Interview, May 20, 2000). Learners do indeed feel empowered with the new knowledge they are constructing and the skills they are developing.

Conclusions and Implications

The focus on working in virtual teams has emerged as a strong theme in this study. Various stressors which impacted on learner performance in courses _ the pressure of time and technical challenges _ have also been identified. One clear issue which surfaced in the study was how learners utilized many different ways of communicating with others on their teams _ not just communication online, through newsgroups. Learners also arranged synchronous communication via ICQ and teleconferences. If geographically possible, they made arrangements to meet in person. Though the program was conceptualized as a multi-mode program, with nine weeks in residence and other course work completed online, learners pushed to make the communication links even more multi-mode than the organizers had planned. These synchronous communication strategies allowed learners to get to know the members of their teams better as people _ some learners even became very good friends and have continued to see each other throughout the program.

Learners in the MBA program also confirmed the importance of technological literacy and properly functioning hardware

and software. Comfort with technology is frequently identified in the literature as impacting on student learning (Christensen, Anakwe, & Kessler, 2001; Haughey & Anderson, 1998). Participants in this study believed that part of the fee for the program should include a laptop which is configured with the appropriate software and hardware_ so that learners would be assured of having successful online experiences from the very beginning of the program.

The personal value of participating in the online MBA experience was affirmed throughout this study. Learners' involvement in this lifelong learning environment strengthened participants' perception of personal efficacy in academic and career situations (Gabriel, 1999). Engagement in the online program facilitated personal growth and development.

Virtual teamwork flows from the commitment to developing a collaborative, interactive learning environment. Web-based courses can be structured to support this pedagogical orientation. Universities currently offering, or contemplating offering, course work online might consider the following:

First, develop a new learning paradigm. Call the virtual teams "learning groups" in order to highlight a shift to a non-competitive, supportive group of learners with a focus on helping each other learn.

Second, form the learning groups very carefully in a face-to-face environment if possible. Allow learners to get to know each other - to begin to determine who can work effectively together.

Third, teach team members conflict resolution skills as part of their initial coursework. As well, members of the learning groups should have the opportunity to develop skills of working in teams before doing so for marks.

Fourth, provide an on-site (university-based) counselor to assist and support learning groups which are unable to resolve serious conflicts within the group on their own. If a counselor is available to work with those learners who face seemingly insurmountable problems within their teams, learning will be facilitated.

Fifth, the findings suggest that there is a tendency to underestimate the time commitment required for group work online. Even though the end result, because of enhanced reflection and debate, may be an improved product, the reality is that it takes a group working online considerable time to finalize a group assignment (Jonassen & Kwan, 2001). Instructors should fully highlight the degree of time commitment that will be required of learners.

Participants in this research study confirmed that involvement in online learning, which they could access almost anytime and anyplace, had a major impact on their lives. Even though

individual and team coursework was demanding, and levied hidden costs of time, frustration, and energy, the cost-benefit analysis was heavily weighted toward completion of the MBA degree. Learners took seriously the comment they would be "changed people" by the end of their academic work. Participants in this study welcomed and affirmed the value of those changes.

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