

CHAPTER VI

DISCUSSION, CONCLUSION, AND RECOMMENDATIONS

Discussion

This study gathered and analyzed the stories of ten nationally recognized exemplary online instructors to find themes and patterns of aspects of online learning environments that they feel are more effective and successful than face-to-face (F2F) environments. Through constant comparative analysis, thirty themes emerged from the stories. Many of these were interwoven throughout all of the participants' stories and emerged as primary themes that tell a composite story.

This composite story talks about effective and successful aspects of the online learning environment that one would want to keep in mind when approaching teaching online for the first time, revamping an existing online course, or creating a blended course. The story paints a very different picture from common perceptions of the online environment that lean more toward content presentation.

Interaction and Participation

The first research question is discussed in this section; (1) Which aspects of course design and/or instruction are more effective and successful in the

online learning environment than in the F2F classroom, and why, according to faculty who have been recognized as exemplary online instructors?

Interaction and participation through online discussions is the most effective and successful aspect of the online environment for a variety of reasons. Online discussions provide the basis for class participation, thus students must post comments and participate in the discussions to be counted as being in 'attendance'. This promotes 100% participation. The most important ways in which the online environment supports and promotes discussion and interaction are as follows:

1. The online discussions provide the means for interaction with and between students (M. G. Moore & Kearsley, 1996). Discussions make the students visible to each other and the instructor in ways unique to the online environment, ways that are not possible in the F2F environment. Student thought-processes and thinking are visible through their text-based comments and interactions with the content and fellow students. This provides the instructor with multiple opportunities for formative and summative assessment of student performance. This agrees with the first and fourth principle of good practice (Chickering & Erhmann, 1996; Chickering & Gamson, 1987) and the Sloan-C Learning Effectiveness pillar (J. C. Moore, 2002), by encouraging contacts between students and faculty, and providing prompt feedback. Instructors feel more connected to their online

students than their F2F students. The visibility of the students helps them get to know their students more intimately than in the classroom. Additionally, the instructor can observe students in their learning processes and give immediate guidance and mentoring when help is needed (Chickering & Gamson, 1987).

2. Online discussions also arm the instructor with invaluable formative evaluation data about the course that can be used to continually improve the learning environment throughout the semester, and to change the course design for the next time the course will be taught. This is an instructional design best practice (Dick & Carey, 1990; Gagné, Briggs, & Wager, 1992) and also agrees with the Learning Effectiveness pillar that encourages metrics to be used for testing, discussion, and materials (J. C. Moore, 2002).
3. The online environment provides a safe environment for all students to be heard, to find their voice. In F2F classes, an in-class discussion usually is dominated by a handful of aggressive, out-spoken or assertive students, which in turn does not allow for the less assertive, perhaps quiet and shy students to be heard. The Learning Effectiveness pillar promotes the creation of this type of safe environment through the use of 'swift trust' and community-building through interaction (J. C. Moore, 2002). Students have no control over how fast the discussion moves in a F2F class, which works against

students who need time to absorb, contemplate and formulate their responses and contributions. The fast pace of F2F discussions also work against students whose native language is not being used in the discussion (Young, 2002).

4. In agreement with the fifth principle of good practice, which emphasizes time on task (Chickering & Gamson, 1987), the online environment gives students more time to craft thoughtful responses and contributions. They have time to write and rewrite responses and seek additional information and research on the discussion topic to incorporate into their postings.
5. Because all of the discussions are captured in a permanent text-based form, students can review past discussions, contributions of fellow students and the instructor, to frame their next contribution. They do not have to rely on their memory to recall what was said in a past class session, it is available to them to refer to at anytime during the semester. This agrees with Chickering & Ehrmann's explanation of the third best practice, active learning. The online environment enables time-delayed interaction, as well as real-time interaction (Chickering & Erhmann, 1996). This also makes them more accountable for what they say.
6. The online environment allows, and indeed promotes, student-student interaction, which in turn encourages the formation of a community of

learners. Students are more supportive and encouraging of their fellow online students and are willing to share more openly than in the F2F environment, as embodied in Chickering & Gamson's second principle of good practice; reciprocity and cooperation among students (Chickering & Erhmann, 1996). They enjoy interacting with each other and reading each others' comments. This type of interaction also contributes to student satisfaction, one of the Sloan-C pillars (J. C. Moore, 2005).

7. Discussion reveals true learning by the students. They must explain what they understand and how they understand it, so their comprehension is more visible and can be assessed to a greater degree than F2F discussions. Additionally, higher levels of critical thinking are observed in the online discussions, supported in part by the structure of the online environment and how a student must engage with the content and fellow students (D. R. Garrison & M. Cleveland-Innes, 2004; Perry & Edwards, 2005; Swan, 2001).

Access

Access is also one of the most effective and successful aspects of the online environment. Access is provided in two primary ways: 1) access to courses at anytime, from anywhere and 2) access to content for review and self-testing at anytime, from anywhere. Access is one of the Sloan-C pillars (J. C. Moore, 2005).

Access at anytime and from anywhere has been promoted as a benefit of online education from many years. Access to online courses and programs provides educational opportunities to those who otherwise would not be able to further their education, particularly students who work full-time jobs and/or have family obligations, or whose work schedules prevent them from attending traditionally scheduled classes (Card & Horton, 2000; Maushak & Ellis, 2003; M. G. Moore & Kearsley, 1996; Simonson, Smaldino, Albright, & Zvacek, 2003). In more recent years there has been a growth of enrollments in online courses by students who are local, on-campus or within driving distance (Dziuban, Hartman, Moskal, Sorg, & Truman, 2004). This adds a new dimension to the meaning of access and prompts instructors who teach on campus to rethink their role in creating effective learning environments for their students. To accommodate busy schedules and lifestyles, many on-campus or local students are opting for online courses that allow them the flexibility they need to fit their education into their schedules (Benke et al, 2004). A common scheduling approach used by students is to register for one or two online courses with the rest being F2F courses. This type of access is closely connected with the Student Satisfaction pillar, which states that students expect convenience and flexibility in online programs and want access to education that is independent of time and distance (J. C. Moore, 2005).

The second way to think about access is as the creation of effective learning environments that may expand the walls of the physical classroom or

even present content in ways that provide better and more opportunities for student to engage with the content and each other (D. R. Garrison & M. Cleveland-Innes, 2004; Harasim, 2000). In some cases, creating web-based presentations and activities actually produce superior learning environments than what can be created for the F2F classroom. Concepts that are not easily illustrated or demonstrated in the classroom become visible to the students. These content presentations can be created to be interactive, allowing the students to manipulate the content and observe the results. This supports the seventh principle of good practice, respecting diverse talents and ways of learning (Chickering & Gamson, 1987). Additionally, the content may provide self-review and self-testing mechanisms that allow the student to ask the same question as many times as they need to in order to understand, or to work through problems repeatedly until they master a process. Engaging content presentations and learning activities can be created for any discipline at any level. This supports Garrison's claim that one can use the distinctive properties of the online environment by providing opportunities for both discourse and reflection, critical thinking and problem solving (D. Randy Garrison, 2003). This is in agreement with the Access and Student Satisfaction pillars, under which flexible, learner-centered instruction is promoted (J. C. Moore, 2005).

Instructor Role and Workload

When instructors begin teaching online they find that their role has changed slightly. Instead of maintaining control over the class and schedule by

standing at the front of the classroom, they must let go of the control and move into the role of guiding, facilitating and mentoring the students. The control is maintained through the structure of the course. Content can be accessed without direct involvement of the instructor. Discussions can be conducted without the instructor in the lead. Activities and assignments are accomplished without the constant presence of the instructor. One might ask, "What use is the instructor? What does he/she do in this online classroom?"

The instructor needs to be present and accessible to all students throughout the semester. They need to actively participate in discussions and give continual feedback and encouragement throughout the semester (Bollinger & Martindale, 2004). The instructor's presence must become real to the student to prevent feelings of isolation. This does not mean that the instructor must respond to each and every discussion posting. In fact, many of the participants have developed strategies through trial and error of how and when they participate and when they do not. They have discovered that if they participate too much, it interferes with student-student interaction, which in turns inhibits the formation of the learning community that is necessary for an effective online learning environment. Nevertheless, they have found ways to let the students know that they are paying attention and reading the discussion postings.

Some instructors are very active in the first weeks of the semester, providing supportive and encouraging comments to help the student become comfortable with the online environment, the course and online participation

(Benke, et al, , 2004). They also encourage students to start interacting with each other, prompting them to post comments directed to fellow students rather than to the instructor. After a few weeks, these instructors intentionally reduce the amount of responses they post. This promotes student-student interaction and the formation of an active community of learners, both of which are cited under the Learning Effectiveness pillar as being best practices (J. C. Moore, 2005).

Although all of the instructors commented on the time they spent teaching their online courses, none of them felt that it was wasted time. Experienced online instructors have discovered ways to not spend inordinate amounts of time online by maximizing the time they spend online. New online instructors tend to express feelings of being overwhelmed, feeling as if they are chained to their computer all day, every day. Through trial and error, experienced instructors have learned how to set student expectations and create a workable schedule. This has alleviated feelings of being overwhelmed.

Other instructors have discovered ways to automate some of the activities so students can engage in them without requiring the instructor to be online and actively involved. Content that is designed for the online environment will help alleviate the time crunch for instructors and students alike. Interactive animations and demonstrations, online multimedia lectures and content presentations, and online self-checks and tests are some of the ways in which the online environment can help free the instructor to use his/her time to engage in meaningful activities with their online students.

In agreement with the Faculty Satisfaction pillar, even with the time commitment that is required for being an effective online instructor, most enjoy teaching online (J. C. Moore, 2005). Most feel that the time spent is well worth it because they see the impact and influence they have on their students' learning, on their lives, on their ability to reach their goals.

Ultimately, the aspects of the online environment that are most effective and successful are revealed in which aspects are preferably kept in the online environment. All instructors said they will keep discussions in the online environment because of the benefits to both themselves and their students. Content presentation is another aspect that must be kept online. Online content gives the students more opportunities to engage with the concepts. For some disciplines, the type of engagement the online environment promotes is superior to that of the F2F environment. Lastly, access to content and to courses is a primary reason these instructors teach online courses. They believe in providing options and opportunities to their students so that they can succeed in realizing their educational, career, and personal goals in life. All of these primary reasons are closely connected to Chickering & Gamson's Seven Principles of Good Practice and Sloan-C's Pillars of Quality (Chickering & Gamson, 1987; J. C. Moore, 2005).

Impact on Student Satisfaction and Outcomes

Attention is focused on the second research question in this section; (2) How do these aspects impact student learning in online classes, and what evidence shows how students are affected?

Improved student satisfaction and outcomes is a common theme throughout the composite story. Improved participation, critical thinking skills, writing skills and in some cases test scores, underscore the effectiveness and success of the online learning environment. It also underscores the effectiveness of the teaching strategies used by these exemplary online instructors. Recalling that course design and instruction are two separate entities, it is important to remember that effective and successful instructional strategies are as much an integral part of a quality online learning environment as course design. There must be a combination of well-designed courses and effective instructional practices to create effective and successful learning experiences. In considering the effect of these pieces; course design and instruction, it might be said that instruction has more of an effect on the experience than design. An instructor who uses effective instructional strategies can turn a poorly designed course into a good learning experience, but well-designed course possibly would not have the same impact on an instructor who uses insufficient instructional strategies without further faculty development and education. Of course, the most effective and successful experiences come from a combination of both quality course design and effective instruction.

Conclusions

In conclusion, the themes revealed in this study can be used to inform different areas of the online environment, particularly course design, instruction, faculty development and support, and blended learning environments.

Course Design

Course design typically focuses on content of a course, whether it is going to be online or F2F. Instructional design models begin with audience identification, needs or task analysis, and learning goals and objectives. The scope of the content for the course is defined and then broken into units, lessons or modules to be covered during the semester. Generally assignments are designed to give the student opportunities to use the concepts in meaningful ways and then assessments are used to measure how much the student learned and, in some cases, how well. Participation and interaction are activities that may be purposefully designed or planned out to meet a specific learning objective, but for the most part discussion is a by- or end-product of content presentation. In courses that focus heavily on lectures, there may not be any expectation for discussion or interaction, so no consideration is made for using discussions as an integral part of the learning experience.

The obvious need to consider interaction, participation and discussion is revealed through the participants' stories and experiences, not only for fully online courses, but also for blended courses or web-enhanced courses. Designing effective discussion activities is not as easy as it seems but takes a lot

of thought and understanding of what discussions are and how they should be conducted. The online environment is very different than the F2F environment in many ways. How interaction takes place in the online environment is unique to any other mode of communication. Because students can communicate with anyone, anywhere, and at anytime without having to 'ask permission' to speak or wait their 'turn', interaction is defined as being much more personalized, immediate and in some ways connected. On the other hand, because the structure is not forcing them to participate and interact, they can feel lost, disconnected, and isolated. Well-designed activities that effectively use interaction will promote satisfying and successful learning experiences.

Instruction, Faculty Development and Support

Most of the participants went through some form of faculty training or development to learn how to design their online courses and how to teach online. The most effective faculty development courses were those that were taken online, enabling the instructor to gain the student experience of learning online. Those that were not conducted online still emphasized the differences between the F2F and online environments. This underscores the necessity of faculty development programs to help instructors not only design their online courses, but help them learn how to use different instructional strategies to be effective online instructors. The participants recognized that their institutions are among the minority in terms of providing this type of assistance and support. Faculty

development and support initiatives are necessary to enable quality course design and promote effective and successful learning environments.

Most of the participants had some form of instructional design and/or media development assistance provided through their institution. The courses that use multimedia extensively made use of the unique capabilities of the Web and were designed and developed by a team of experts, the instructor did not have to create the multimedia. In addition to multimedia development assistance, they also were able to work with an instructional designer. All of them praised their design teams, acknowledging that they would not have been able to design and develop a course of the same quality without them.

This speaks to the need for designers and media technicians to work in tandem with instructors in designing and developing their online courses. This is often an overlooked and/or under funded area of faculty support at many institutions. Multimedia creation has a very high learning curve, sufficiently so that instructors find they do not have the time or inclination to learn how to create animations, web pages, graphics, video, audio, or other multimedia projects, nor should they. Through good course design and development practices, a team of experts can design a high quality course and still maintain the instructor's responsibility and ownership.

Faculty development workshops should not only focus on the design and delivery aspects of the online environment, but more time and attention needs to be spent on developing effective instructional strategies. Many times the focus is

solely on course creation. When it comes time to actually teach the course, the instructor feels lost, disconnected from the students and confused about how to teach the course.

Blended Learning Environments

The composite story told by the participants' highlighted aspects that were more effective and successful online, and those that were more effective and successful in the F2F environment. This can inform a design and instructional model that 'blends' the best of both environments. The model is not a cookie-cutter, checklist type of model that can be applied universally, but rather in connection with the content, context, and clientele, which includes both the instructor and the students. Perhaps a decision model would be more appropriate that would provide a process by which decisions could be made about which aspects to put online or F2F. The blending may be in terms of asynchronous and synchronous activities or between content presentation and hands-on activities. Or it might be between F2F and online discussions and/or small group work. The model would be based on the effectiveness of each aspect in relation to the learning objectives and goals of the course.

With more and more local and on-campus students registering for online courses, it seems that a blended approach to online learning may help meet the needs of these students and provide high quality, effective and satisfying learning environments. Many of the participants' figured out what should be kept online or F2F by trial and error. By using their lessons learned, combined with best

practices and good design principles, future online instructors and design teams should be able to initially design effective blended learning environments without the trial and error period.

Recommendations

Suggestions for further research are discussed in this last section. Good qualitative research should produce more questions than it answers (Glesne, 1999). This study produced a number of questions that prompt the need for further research.

The participants' mentioned the drop out rate for online courses that happens at the beginning of each semester as being a winnowing process as students find that they do not like the online learning environment for one reason or the other. A common theme was that online courses are not for everyone. Many of them perceive that the students who take, and stick with, online courses are better students than those who take F2F courses. Further research to examine whether better students are attracted to online courses or whether the online environment enables student to become better students could inform how instructors and counselors advise students towards online or F2F courses. Such research would also help designers and student support personnel design effective online learning orientations. One should not assume that the 18 year-olds that are entering institutions of higher education, who have grown up with more technology in their homes than previous generations, are more technologically literate (D. Garrison & M. Cleveland-Innes, 2004). They have

learned how to use the technology for socializing, but not necessarily for learning. Effective orientations for online learning environments may increase the student success and satisfaction with their online learning experience.

Almost all participants felt that the online learning environment is not better than the F2F environment. Many of them admitted that it is as good, but not better. A couple of the participants' felt that it would always be second best to the F2F environment and that students, given the choice and all things being equal, would choose to be in the classroom. This perspective persists in spite of the overwhelming number of comments about how much more effective and successful certain aspects of their courses are over the F2F course. There appears to be an underlying issue in these comments that reaches far beyond course design or faculty development and possibly resides firmly in the history of academia, higher education, and persistent resistance to the online learning environment. Further research may reveal other issues that impact these perceptions, even amongst those who seem to enjoy teaching online and whom are nationally recognized as being excellent online instructors.

Other research could look at the relationship between quality course design and the provision of design and media development assistance. Most of the participants' in this study had some form of design and development assignment and faculty development. All of them are recognized as exemplary online instructors using criteria that looked at course design as well as

instructional strategies. Does having design and development assistance promote higher quality in online course design and instruction?

This research study examined the experiences of online instructors to identify aspects of the online learning environment that are more effective and successful than F2F learning environments. Another research study that examines the same question from the online student viewpoint could add to the field of research of online education and instructional systems. Additionally, conducting a similar research study with students as the participants is recommended to find the similarities and differences in the students' perspective from the faculty's perspective

Many of the participants related how teaching online affected their F2F teaching strategies. A closer examination of how the online course development and teaching process changes F2F teaching practices would provide more detailed and focused information on the transformative effects of online education.

Discussion of how to create effective blended learning environments was started in this research study, but further investigation into the decision-making process of designing blended courses is needed. A blended learning design model that supports experiences and results that are superior to either F2F or fully online formats may be developed that would have practical application for instructors and course designers. Blended learning environments are poised to have the most dramatic effect on the mainstream of higher education institutions.

Summary

This study confirms that there are many aspects of the online learning environment that are perceived as being more effective and successful than the F2F environment by exemplary online instructors. Primarily aspects connected to interaction, participation, and discussion were praised for their effectiveness. Additional aspects include the ability to use the unique capabilities of the Web to present content in ways that are more effective than classroom presentation, the facilitation of meaningful connections between and with students, the ability to monitor progress more closely with immediate intervention possible through online access. Access to a more diverse and more widely dispersed student population is seen as being one of the advantages of online education. Improved student performance and outcomes through increased participation and interaction is noted as well as having more time to spend working with the content in many different ways. The instructors observed that learning communities were more easily formed online than F2F and that these communities benefited the students in many ways including mutual support and encouragement, overcoming math anxiety, and improving interpersonal communication. In spite of the numerous advantages of the online learning environment cited, the instructors still feel that online education is either as good as F2F or, in some cases, second best to F2F. Overall, these instructors are enthusiastic about teaching online and continue to strive for new and improved

methods and strategies that will make their courses more effective and successful and provide satisfying learning experiences for their students.