

CHAPTER IV

CASE STUDIES

This study described patterns of relationships among faculty perceptions of aspects on online courses that are more effective and successful than traditional, F2F courses. These patterns and themes were categorized and then compared to the Sloan-C Pillars of Quality for congruence and dissimilarity. The study used four national award and recognition programs to solicit participants: Quality Matters, Sloan-C Foundation, the United States Distance Learning Association (USDLA), and WebCT's Exemplary Course Project. All participants met the criteria for participation, which included experiences teaching in the traditional, F2F environment, as well as the online environment. Thus, each participant had opportunity to compare the two environments within their own teaching experience.

All participants received recognition as exemplary online instructors based on the criteria from one of four national programs; Quality Matters, Sloan-C Foundation, the United States Distance Learning Association (USDLA), and WebCT's Exemplary Course Project. The criterion from each program follows.

Award and Recognition Programs

Quality Matters

The Quality Matters program is a U.S. Department Fund for the Improvement of Postsecondary Education (FIPSE) grant project.

In Fall of 2003, Maryland Online (MOL), a statewide consortium of 19 Maryland community colleges and senior institutions received a grant from the U.S. Department Fund For The Improvement of Postsecondary Education (FIPSE). The Quality Matters project proposes to develop a replicable pathway for inter-institutional quality assurance and course improvements in online learning. It will create and implement a process to certify the quality of online courses and online components” (Quality Matters, 2006a).

“Quality Matters is a continuous improvement model for assessing and assuring the quality of online courses” (Quality Matters, 2006b).

The review process uses a rubric that consists of 40 standards, divided into three levels:

- Essential in a quality online course
- Very important but not essential
- Important but not essential

A team of three reviewers use the rubric to review the courses. Fourteen of the standards, considered essential, must be met in order for the course to meet expectations and attain recognition. All of the standards are grouped into eight categories:

1. Course overview and introductions
2. Learning objectives (competencies)
3. Assessment and measurement

4. Resources and materials
5. Learning interaction
6. Course technology
7. Learner support
8. ADA compliance

A course must earn enough points from all three levels to meet the 85% accomplished rating and be recognized as a quality course. For more information on this program, visit <http://www.qualitymatters.org>.

Sloan-C

The purpose of the Sloan Consortium (Sloan-C) is to help learning organizations continually improve quality, scale, and breadth according to their own distinctive missions, so that education will become a part of everyday life, accessible and affordable for anyone, anywhere, at any time, in a wide variety of disciplines. Created with funding from the Alfred P. Sloan Foundation, Sloan-C encourages the collaborative sharing of knowledge and effective practices to improve online education in learning effectiveness, access, affordability for learners and providers, and student and faculty satisfaction (Sloan-C Consortium, 2006, para 1).

Since 2001 Sloan-C has been awarding organizations and individuals for their excellence in online education since 2001. The Excellence in Online Teaching Award is awarded to an individual instructor based on the following criteria:

- Innovation—the practice is inventive or original
- Replicability—the practice can be implemented in a variety of learning environments

- Potential impact—the practice would advance the field if many adopted it
- Supporting documentation—the practice is supported with evidence of effectiveness
- Scope—the practice explains its relationship with other quality elements

Additional criteria for the Excellence in Online Teaching Award Criteria:

- Imaginative Approach: The recipient has implemented a creative approach to one or more emerging instructional challenges.
- Quality of Course Materials and Instructional Strategies: The recipient has created well-designed course materials and utilized appropriate instructional strategies.
- Learner Satisfaction: The recipient has demonstrated rapport with learners as well as other course participants.
- Effective Learning Outcomes: The recipient has demonstrated effectiveness in achieving desired learning outcomes in the online course(s).
- Supporting Documentation: All required documentation is submitted (Sloan-C Consortium, 2005b)

For more information, please visit <http://www.sloan-c.org/>.

USDLA

The United States Distance Learning Association (USDLA) was the first nonprofit Distance Learning association in the United States to support distance learning research, development in education, training and communications.

In 1987, the USDLA was founded on the premise of creating a powerful alliance to meet the burgeoning education and training needs of learning communities via new concepts of the fusion of communication technologies with learning in broad multidiscipline applications...The learning communities that USDLA addresses are: pre K-12, higher education, continuing education, corporate training, military and government training, home schooling and telemedicine. In addition USDLA is also focused on national and international technology based Distance Learning (United States Distance Learning Association, 2006, History, para 1).

The annual awards program acknowledges those who have demonstrated extraordinary achievements in distance learning.

Awards Criteria include:

- Interactivity – interactivity with content, peers, and instructor
- Online Design –course and lesson objectives, logical presentation of content, content aligned to recognized standards, provides multiple types of learning activities and good web design. Also includes writing mechanics and following Fair Use Guidelines.
- Technology –meeting minimum technology requirements, providing technical help, directions on how to use the technology, connectivity issues are addressed and all plug-ins are listed.

- Assessment – self-assessment is provided, high expectations are provided through minimum requirements and use of rubrics for assignments and projects, assignments provide students with ways to practice and apply concepts and skills, and multiple forms of assessment (USDLA, 2005).

For more information about this program, please visit <http://www.usdla.org/>.

WebCT

Each year, WebCT recognizes exemplary instructors and designers from institutions using the WebCT course management system. “The WebCT Exemplary Course Project recognizes courses that model best practices in course design, interaction and collaboration, assessment and evaluation, meaningful technology use, and learner support” (WebCT, 2006, para 1). In this program, five criteria are considered essential to a quality online course:

- Course Design – addresses the instructional design of the course, which includes the structure of the course, learning objectives, and instructional strategies.
- Interaction and Collaboration – type and amount of interaction and collaboration including learner-to-learner, learner-to-content, and learner-to-instructor.
- Technology – focused on enhancing and enabling learning. Includes appropriate use of technology and student connectivity issues.

- Assessment – the quality and type of assessments within the course that encourage critical thinking, align with learning objectives, provide students with opportunities to practice and apply concepts, and encourages use of external resources. Also include clear directions and expectation of performance and ample opportunities for student self-assessment.
- Learner Support – resources available to the student as part of the course such as tutorials on how to use the software, links to helpdesk personnel, access to the library, information on required plug-ins and appropriate instructor contact information.

For more information on this program, please visit <http://www.usdla.org/>.

All four programs have many criteria in common. Table 1 shows the criteria by program. All programs examine course design, some look at design and instruction. All programs look at learning objectives, assessment and course materials and resources. Most programs consider interaction, technology and learner support in their criteria. Quality Matters is the only program that segregates course overview from other criteria because its purpose is solely to evaluate course design, not instruction. All programs promote best practices in online education, Sloan-C is the only program to specifically focus on innovative practices, replicability, as well as advancement of best practices. Only Quality Matters and WebCT look at ADA compliance or accessibility of the course, which is in line with these programs' focus on course design.

Table 1

Award Criteria by Program

	Quality Matters	Sloan-C	USDLA	WebCT Exemplary Course Project
Course Overview	X			
Learning Objectives	X	X	X	X
Assessment	X	X	X	X
Resources and Materials	X	X	X	X
Interaction	X		X	X
Technology	X		X	X
Learner Support	X	X		X
ADA Compliance (Accessibility)	X			X
Innovation or Imaginative Approach		X		

Case Studies

Before turning to the individual cases, an overview of the study participants is needed. Invitations to participate were sent out to 20 exemplary instructors. Eleven positive responses were received. These prospective participants were sent the web address for the Letter of Consent, which linked to the survey. All 11 participants completed the survey, but one participant was not able to continue participation beyond the survey. As pertinent data was collected during the interview process, this participant's survey responses are not reported in this chapter. Table 2 lists the participant by discipline, type of institution, rank years of teaching F2F and years teaching online. Pseudonyms are used to protect the confidentiality of the participants.

Table 2

Participants by Discipline and Years Teaching Experience

Name	Discipline	Yrs Teaching F2F	Yrs. Teaching Online
Alexa	Communication	20	2
Ann	Health Information Management	27	2
Barry	Philosophy	20	3.5
Foster	Mathematics	13	5
George	Philosophy	10	4
Laurie	Writing	10	5
Mary	English	21	6
Nicole	Linguistics	24	2.5
Pete	Psychology	38	9
Stan	Business	14	6

By chance there were equal numbers of female and male participants. Rank of the participants ranged from adjunct faculty to full professor. Disciplines represented include both process- and content-oriented subjects, as well as a mix of quantitative and qualitative approaches. Altogether, the participants' experience totals 197 years of teaching in the classroom and 45 years of

teaching online. There are two participants from Quality Matters, USDLA, and Sloan-C, and four from the WebCT Exemplary Course Project. Table 3 lists the number of participants in each award program and by type of institution.

Table 3

Participants by Award Program and Type of Institution

	Quality Matters	Sloan-C	USDLA	WebCT	Total
Participants	2	2	2	4	10
2-year institutions	1	1		2	4
4-year institutions	1	1	2	2	6

Each participant completed a web-based survey that asked for demographic information and initial thoughts on the research questions. This information formed the foundation for the semi-structured interviews. The participants were given the choice of mode of communication for the interview process; phone or email. Most chose email with a follow-up phone interview. A few chose only email, and some chose phone interviews with email follow-up. With the exception of one participant, there was at least one contact made by phone.

Each participant was asked to approve their case story written by the investigator from the interview notes. These member checks often resulted in additional ideas, thoughts and comments, which have been incorporated into the final story. Pseudonyms are used to protect confidentiality.

Case #1 – Alexa

Alexa is a clinical associate professor that has been teaching for 20 years, teaching graduate school for six years, in the business world for 20, and taught for four years post-PhD in her first job after grad school. Her discipline is Communication and she has worked in the business world for many years as well. She has been teaching online for two years now but only teaches two classes per year. One of the online courses she teaches is an applied theory course called Strategic Corporate Communications.

When Alexa found out she would be teaching this course online, she knew she was one of the first to do so in the university so she approached the director of the Center for Distance Learning on campus to ask for assistance. At this time, many interested parties at the university were looking for what would be the standard for distance learning on campus. By working with the staff in the Center, she received a great deal of assistance that she would not normally have in the design and development of the course. The Center paid for and hired an instructional designer with experience in online courses, a producer/director for the media, a programmer, and a project manager. Because of this assistance, she says the look of her course is very sophisticated. Unfortunately, this is no

longer the standard on the campus, so others who are developing courses now do not get this type or level of assistance. In fact, the university is now checking into a low-tech model for their online courses.

Alexa feels there are many aspects in her online course that are more successful than the F2F environment.

When she and the design team first started working on her course they told her that the course had to be learner-centered, something she was not comfortable with. She was used to what she called the 'Push' model of instructor-centered design, in which the instructor lectures to the students, controls the flow of the class and what content is covered and when. She felt much more comfortable with this model because she knew what the students were getting by way of content. The learner-centered model the design team encouraged her to adopt, which she called the 'Pull' model, made her very nervous.

To build a learner-centered course, they designed a challenge for the students and put it at the beginning of each module. The students were not able to solve it if they did not work through all of the materials. This worked incredibly well as a learner-centered approach.

Alexa says,

Learning is richer because the design enables a more direct learner-centered teaching environment. The students are doing much more reading and incorporating the reading materials much more than they did in the other [face-to-face] classes (Alexa, 2/23/06).

In addition to module problems, the challenge is the case scenario for which the class has to create a communication plan. The students were randomly put into small groups for each of the modules to work on these case scenarios. Alexa does not feel as if she can do this as effectively in the F2F class because it would require too much time and logistical organization. When she conducted these scenarios in the classroom, she usually lectured for the first hour or two and then allowed the students to work on the case for 30 minutes and then present it. In contrast, time is expanded online and they are able to achieve much more depth in understanding and it shows in their presentations.

The lectures and content have been developed in video or Flash™ dramatizations. In one dramatization, the CEO of the company is talking to the student as the communication officer. Another simulation has the student as the lead communication person on a team and they go talk to the various people who will work on the project. It is done in a way that the student can hear the other person's thoughts as well as what they say out loud. These video vignettes come as close to mocking up what happens in the real-world as possible. She feels this is something that she can not do in the classroom. In the online environment, the instructor can take advantage of the students' time more effectively than one can in the classroom (Alexa, 2/23/06).

Alexa has seen the positive effects of these activities in the work of her students.

It shows in the work product for each module and the final product is of a much deeper, richer caliber than what I would get in the F2F class (Alexa, 2/23/06).

Where it does not show is in the term papers. They are no better and no worse between the two modes. Alexa has moved forward a bit in her teaching processes in regards to the term paper. She is now grading the electronic papers

using a Wacom tablet so that she can give handwritten feedback to the students. They seem to like it, although she is going to have to switch colors because they were giving her comments about their pages 'bleeding', as she would use red for her handwritten marks.

The discussions are another area that Alexa has seen great improvement. Her students say that they feel they have more interaction with her and other students online than in the F2F classes, much to everyone's surprise.

They really take off in the discussions, even in the topics that are not content related, such as the Café area where you can talk about anything (Alexa, 2/23/06).

She checked on the number of postings so far in the semester and noted that after six weeks in a class with 29 students, there were almost 300 postings in the Introductions topic, and 182 in the Café topic. The students seem to really enjoy the discussions to the point that some of them were complaining that they were taking too much time. She advised them to pick and choose, not to read every single post. This seemed to help.

She has noticed that the discussion posts are much more thoughtful and direct because they have more time to think about their response. As far as she can tell by observation, they are composing their comments in Word and then pasting them into the discussion. Alexa notes,

When you speak, you do not think about it very much before you ask your question or make your comments (Alexa, 2/23/06).

But online the students have the time to compile other students' postings and then compose their responses.

Another advantage of having discussions online is that she can see what her students are thinking. She can see trends in the comments and respond with additional resources or bring in current relevant materials. It gives her more flexibility and access to the students. Everyone has to participate by posting, it is required. Alexa states, "You never get 100% participation [in the classroom]" (Alexa, 2/23/06).

Alexa would not teach a blended course because it takes away the reason for online classes. Her students are working professionals and need the flexibility that an online course gives them. Additionally, she feels that an instructor can do as good job of teaching online as they can F2F.

I think that if you blended it thinking that you will end up with the best of both, what you end up with is not better, but an abomination that is neither (Alexa, 2/23/06).

There is some content that she would not try to teach online. She teaches a communication consulting skills class in which the learning objectives relate to carrying out certain abilities and skills in a face-to-face situation. There is no real-life application of using these skills online. She might add a discussion component to this class, but she does not feel that doing so makes it a blended class as much as an enhancement of the F2F class.

Teaching online has not changed Alexa's instruction in the F2F courses as much as she would have liked. She has had the best of intentions of doing more

discussions in her F2F class, but she ended up having much higher enrollment and just could not manage it. One lasting effect has been that she now gives better, more advanced instructions to the students before the lecture to help them frame the lecture in terms of what they are going to need to do in the following assignment. This helps them listen more specifically during the lecture.

In terms of her student evaluations, there were really no differences between her online and F2F students. This really surprised her because she was sure she would get worse evaluations from her online course. She figured she would lose her personality in the translation to text and her personality is one of her assets. But she did not lose her personality; it came through the text, in the way that she would word her comments, emails and postings. She was really pleased with this.

Alexa gives a lot of credit for the success of her course to the design team she worked with. If she had not had them to help her she would just have put her lectures notes and a few PowerPoints in her course. But they helped her to understand that one must take advantage of the uniqueness of the medium, that the online environment is different from F2F and that one should not try to make the online class like a F2F class without any consideration of what the medium allows one to do that cannot be done in the classroom.

They took advantage of what you could do online with video and voice-overs. We used a bit of video, just enough to have the feeling that there was an instructor and a connection. The Flash animations used voice-overs. They made me write learning objectives, which I had in my mind, in the way I would think about my class, but college professors do not create

learning objectives for each segment of each module of their courses! There was a level of rigor in this process. The students can click on a learning objective for any part of the course (Alexa, 2/23/06).

As a result of this process, Alexa was nationally recognized and awarded as an outstanding online instructor.

Case #2 – Ann

Ann teaches at a 2-year institution in the Health Information Management Systems program. She started teaching in 1965 and spent some years, on and off, in the clinical setting. Altogether she has taught for 27 years. She has used technology in her teaching for quite a few years, experimenting with various technologies, such as two-way interactive video. She is quite proud of her technical skills and thinks she has used technology in ways that other instructors have not.

Ann has been teaching online for two years. She became interested in teaching online when the head of distance learning at her institution began recruiting faculty to take a course on how to teach online. The course was actually conducted online so that faculty could experience what learning online is like and understand what their online students are experiencing. After taking the online faculty course, she was able to pick which course she wanted to teach online. She picked Medical Terminology because it seemed to lend itself well to the online environment. In Medical Terminology, Ann states that the students have to do all of the work in the textbook on their own or they are not going to pass the course, regardless of whether or not there is an instructor standing up in

front of a classroom or guiding them from a distance. She had to find other resources to help the students with the pronunciations of the words, but the course materials were in good shape to go into an online course. Before she started designing the online section of Medical Terminology she was already using many online materials to enhance her F2F classes, so putting a complete course online was the next logical step.

Ann's pathway to designing and developing her online course came through various learning experiences. Besides the online faculty course, which really helped her with knowing what it was like to be a student online, she also learned a great deal from her students and other faculty members. She encouraged her students to give her suggestions and feedback on course components. If she heard a suggestion more than once, she would work on putting it into practice. This feedback was and continues to be incredibly valuable to her in improving the course.

Ann feels the best part of her online course is the discussion. She feels the online discussions are much more interactive and thoughtful. The students seem to connect at a different level than in the classroom, with many of them sharing more personal information and experiences than they have time or inclination for F2F. Her students come from very diverse backgrounds. Some of them have their GEDs and are just starting on their higher education pursuits. Others have their Masters degrees. They come from all walks of life and even

from a variety of disciplines within the Health field. The age range is from 19 – 72. In her opinion, this diversity is part of what makes the discussions so rich.

Additionally, Ann feels that because the students have more time to engage in online discussions, it is easier to ask them to bring in additional outside information and resources, and to cite those resources through web addresses, links to journals and additional information. One of the assignments in the class is to find a medical journal article, summarize it, find three medical terms and supply the definitions for those terms. The other students have to come up with additional facts for three fellow students' article summaries and ask meaningful questions about the other's article. This is just one way that she helps her students know how they are going to be using the terminology in the real world and gives them further practice using the terms properly. In fact, all of her assignments promote proper usage of medical terms, including spelling and syntax.

The article discussions promote a high level of interaction among the students. Many times they read one of the articles from a classmate and send it to a family member or friend who is suffering with that particular disease. They also open up and start sharing their own experience with certain diseases and the challenges and issues they have come across. The level of interaction in these discussions amazes her. There is a much different dynamic throughout the discussions than what she has experienced F2F. Ann noted that in a classroom setting, with an average of 25 students in each section, she could hardly get

through all of the article presentations before running out of class time. Additionally, no time was left for discussion, questions and answers, or any level of sharing. Also, they might not be paying attention or taking notes, or might get distracted in the classroom. They lose their concentration and focus easily in the classroom. This does not happen online because the material is available to them and they can view it as many times as necessary. She also sees much more support and encouragement being exchanged between the students online. They seem to achieve a higher level of intimacy online than in the classroom. In fact, from comments shared by the students, Ann says that the students love the discussions. When she looks over the activity in the course, she notes that they spend about 75% of their time in the discussions. They strive to answer each other's questions and even bring in a bit of healthy competition into some of the activities.

Ann is amazed to see what they are able to learn over a semester. She likes that she has a running picture of what the student is doing.

In the classroom, you might see them half-asleep or floundering in the computer lab because they didn't pay attention and keep up with the rest of the group, but it's hard to tell how they are doing with the content, what their progress is. But online, you know which students are in trouble much quicker and can step in with advice and encouragement, further explanations, and additional materials. Learning is richer because the design enables a more direct learner-centered teaching environment. It allows you, in a sense, more control, of knowing what's happening (Ann, 2/27/06).

Student progress and growth, as well as problems, are much more visible to her than in the classroom. The students are much more visible because their

thought processes are visible to her online in ways that they are not in the classroom.

Another aspect of her online course that she feels is much more effective is the book exercises that they all have to do. She has them submit their work through the assignment dropbox. She says that with very few exceptions, the online students are much more diligent in their efforts to work through these exercises. She believes this may be because students who take the online section are much more disciplined and motivated. They are more diligent in their work and assignments. Many of them are working professionals with family obligations and have a goal for taking the course. This motivates them to do well in the course because they can see how they are going to use it in their career.

Ann also notes that the students are more successful in the class because the process of working through all of the book exercises and materials helps them do better on the tests and assignments. They also do better on the written assignments, such as the research paper and PowerPoint presentation. Regardless of whether they are taking this course online or not, those that work through the book exercises and materials get 'A's and 'B's, where as those who do not truly will not do as well in the long run. She feels that because the online students tend to be better students, more self-disciplined and motivated, their course outcomes tend to be higher than the F2F students.

She has received many comments from her students about their experience in the online class. One student told her she was so grateful to have

taken the online class because she felt she really learned a lot. Ann adds that those who have the best experience online are those who have the most exposure to the class and are more actively involved in the online discussions. Many of her students will say that her course is better than what they have experienced previously. She feels very good about that.

Ann enjoys getting to know her students and she feels that she does so in her online courses more so than f2f. Through their posts and in seeing how they try to help each other out, their personalities are revealed. In reality, they all get to know each other better online because they have the time to share more and are willing to get a bit more personal than in the classroom. This helps her feel more connected to her students.

Ann really enjoys teaching online. She wishes there were more faculty members learning how to teach online because demand for the Medical Terminology course is outpacing the availability of instructors. She cannot teach any more students or any additional sections because it takes so much time for her to do a good job teaching online. She responds to each question or post. She also tries to add additional information in her responses, so her posts tend to be multiple paragraphs in length. This accounts for a large part of the time she feels she needs to spend online. For Ann, she spends much more time online than she spends in the classroom.

But the trade-off is worth it. Ann feels very strongly that she would not be able to conduct the discussions in the classroom with the same level of participation, interaction, and thoughtfulness as she can online.

Face-to-face they are afraid to ask questions, to interrupt or they don't know much about the topic because they haven't had a chance to look up information on their own. But online they have the time to do that research before they respond or ask questions. You are learning at the same time they are and it's interesting (Ann, 2/27/06).

She also noted that the students' searching skills are improving. They are learning to access better resources more quickly. This will help them in their other classes as well as on the job.

Some of the activities that Ann does not feel she can do online come from her Supervisory course where the students have to conduct a staff meeting, go over policy, and interview a prospective employee. At present, she cannot visualize how to do these activities online and have it be as effective as it is in the classroom.

Ann does not feel that she has really changed any of her teaching techniques since going online, but credits this to the fact that she has been using web-based materials to enhance her F2F courses for a while and has been using computers in her teaching for many years. It was a smooth transition for her to start teaching online.

Case #3 – Barry

Barry teaches philosophy at a 2-year institution. He has been teaching in the traditional classroom for approximately 20 years and has been teaching

online for 3 ½ years. He started enhancing his F2F courses using a course management system some years ago, but he is the first to admit that he approached teaching fully online, especially philosophy, with great skepticism, wondering if students could learn philosophy online.

Barry feels that he benefited greatly from conversations he had with the instructional designers at his institution. They emphasized that he needed to be concerned with the flow and rhythm of the course and how to create a course to give the students' a good experience. He also took a 3-week online course on how to convert a course for the online environment. It made him totally rethink his approach to online learning, forcing him to think differently about how online courses work. He had always considered online courses as a place to “dump” course materials. But the 3-week course gave him a totally new vision of what an online course could be like. It also gave Barry the invaluable experience of being a student online. He also took a few short online courses to become a certified online instructor. All of these online courses gave him insight into how to design the courses and how to teach them. Still he remained a skeptic, not convinced that a philosophy course, with lots of reading and thinking about concepts that are generally new to the students, could be taught effectively online. He decided he needed to find out if his content could be taught online.

The Asian religions course that I converted to a fully online offering uses materials that were tested F2F over several years. Though the conversion is far from a one-to-one process (the flow and rhythm of the course, for example, needed reconceptualization) the classroom experience helped immeasurably when I had to decide which questions would work (i.e.,

relevant discussion) and which would not. By contrast, my current project of putting a critical thinking course entirely online does not draw on my experience teaching a F2F course using precisely the materials and subject matter of the online course. Future iterations of the course will be adjusted in response to student performance; it's likely more "tweaking" will be needed than with the Asian religions course. The point here is that F2F experience can be very helpful in constructing an online version of a course. But, having said that, I was still skeptical about what might be accomplished online....What actually happened in the online course surprised--and pleased--me (Barry, 2/13/06).

Barry feels that online discussions are far superior to the F2F discussions for a couple of reasons; (1) the online discussions involve all of the students, including the shy or quiet students who normally do not speak up in the F2F class discussions, and (2) real learning is evident. He sees student consider other students' comments and sometimes, change their views. Additionally he adds that the relative anonymity of online discussions may be a boon, as inhibitions are lessened when physical presence is absent. He is very pleased with the give and take of the postings and the fact that everyone gets a chance to be heard.

That's not the same for my face-to-face version; in spite of many efforts, only a few students end up dominating the classroom discussion and pretty much set the agenda (Barry, 2/13/06).

He continues to include online discussions as part of his F2F classes for these reasons.

Another aspect of the online environment that surprised him was the length that his online students go to in order to comprehend the textbook and concepts.

In a face-to-face environment students rarely seemed to read the textbook since the instructor would explain everything during the next lecture/discussion. Online, however, though I did include one or two brief (5-12 minute) Impatica™ PowerPoint audio presentations in each...module, students were left more to their own devices. In postings and short-answer writing I found spontaneous references to the text with relative frequency, evidence that students were reading and thinking about the assignments. Students would often comment that they had to read the selections 'more than once' (!) in order to begin to understand them, and some students wrestled with certain selections in a way I had not seen in my face-to-face classes with the same subject matter (and same textbook) (Barry, 2/13/06).

Students frequently write or post that they were exasperated that they actually had to read the text selection two or three times in order to 'get it'. Comments like these suggest that the students are relying more on their own efforts and less on Barry's explanation of the content. This is something that he does not see much evidence of in his F2F version of this course.

The feedback that Barry receives from the students indicates that they like the online discussions better than F2F discussion for a couple of reasons; 1) in-class discussions are problematic for many students because it is difficult for them to respond without having enough time to really think about their answer. They also do not really get a chance to be heard because a few students tend to dominate the conversation and 2) students enjoy the interaction with fellow students.

Students very much like being able to read the thoughts of all the rest of the students in class. Some students, of course, can't wait to be the first to post; others tend to post after most everyone else has checked in. Most students profit from reading earlier postings, though it is also the case that an early posting, which tends to set the tone of the discussion, can mislead students. Students feel more connected with others in class

(whom they cannot see) rather than (in a F2F environment) listen to five or six students dominate most class discussions (Barry, 2/13/06).

Barry has also given a lot of thought to his role in these discussions and how best to make them most effective as a learning tool. He explains,

What if an early posting is misguided? Do I intervene? No. As a practical matter, I can't monitor the postings closely enough hour by hour to detect problems and make responses. But there's another issue, one I've discovered after teaching online for a while. If I intervene too much, students come to (1) expect the instructor will pick their postings to respond to and are disappointed when that doesn't happen and (2) students tend to disregard what others are saying and come to think of the class as one-on-one with the instructor. In other words, if I intervene too much students write for my eyes alone as if others in the class did not exist. Less intervention on my part means students have to rely on each other more for insights and explanations (Barry, 2/13/06).

Even though Barry thinks the online discussions are much better than the F2F discussion, he feels that

The online experience is, and will always be, second best to the F2F experience (even given the plus factors I crow about above). That said, my passion now is to make my online courses as good as they can be, to maximize what works and minimize what doesn't, even though the overall experience will not be for everyone. A good number of students drop out early from my courses; when they tell me why, the most common answer is that they need the F2F contact and discipline of a classroom. Online is not for everyone, but for some students--disabled, stay-at-home parents, working people, it can be valuable indeed as an entrance into the world of higher education (Barry, 2/13/06).

Barry feels that access is a good reason to be teaching and learning online.

He has also observed that many students drop his class after the first couple of weeks because it was not as easy as they thought it would be. Others drop because they do not feel that learning online is the best way for them to learn. Other students, most of who are on campus, think they can squeeze in

another three credit hours by taking them online. But unless they can find the time to put into the course, they fall behind and drop the class.

Barry expressed his feelings and thoughts as to why he would not want to go back to teaching the Eastern Religions course in a F2F setting:

A decade ago I tried to engage my face-to-face students in substantive discussion. I would get to know them and call on them by name to answer a question. My goal back then was to take the answer they gave, modify and expand on it, show conceptual links, and then invite others in class to add to our understanding. It was a kind of pedagogical theatre in which we are all participants. That was the goal, and sometime it worked. But over the years I found two things began to happen:

(a) First, students were less and less diligent in reading the assigned material in advance, waiting instead for me to clarify. When I asked questions, I got mostly blank looks. Silence. More silence. Lots more silence. And so I gave in and lectured. (b)

Second, students increasingly came to resent my calling on them for answers. Now in an English class or in a political discussion, the instructor might call on a student to ask the student's feelings or opinion on the issue at hand. Students would not have a problem with that, because in such a situation they could never be wrong! They were merely giving their opinion and no one could contradict them. But I was asking questions that had right and wrong answers (though I tried always to be gentle with a wrong answer). Those answers needed to come from the reading and not just represent a student's opinion. They did not want to play. A few regulars in class might answer my questions after I got a stretch of "I don't know" and threw the matter open to the class. I was dissatisfied. With a fully online course, in which everyone participates on the discussion board, both problems are eliminated. And there's a third point. (c) Face-to-face students have told me over the years that they didn't answer a question in class, or didn't even speak up, because they needed time to think of an answer or a comment. They didn't feel comfortable speaking *ex tempore*. With the asynchronous discussion board, that problem is resolved, too! (email communication, 2/15/06).

In terms of outcomes, Barry noticed that grades tend to be about the same for both online and F2F sections of the course, but he adds that the benefit for online students, in his mind, is that they come to their grade with less intervention by him and more work on their own to understand the difficult concepts.

There are better opportunities online for the students to grasp the very difficult concepts in this course. It far exceeds the F2F classroom in this respect (Barry, 2/13/06).

There are some aspects of his courses that he will keep online, even in blended or F2F versions; discussions, writing assignments, and quizzes.

In my F2F logic class, when I would hand out the daily quizzes in class, sometimes it took 15-20 minutes for the process to be complete. In effect, by moving these quizzes online, I have 20% more time to teach! (Barry, 2/13/06)

Barry continues to work on his online courses, continually looking for more effective and successful ways to impact student learning by maximizing what the technology can do.

Case #4 –Foster

Foster is a Mathematics and Statistics professor at a large 4-year institution. He has been teaching for 13 years and is now the chair of his department. He began teaching online five years ago.

Foster approached online education as something that is uniquely different than traditional F2F education. He noticed that the biggest mistake an instructor can make is to take the F2F class structure and materials and try to

impose them on the online environment. He wanted to avoid this trap so he used what he felt was unique about the online course and what best practices have been published to design and teach his online courses.

One aspect that Foster feels works in both environments is requiring student participation by setting aside part of the course grade for participation. He feels that required participation helps the students engage in both environments, but he has noticed that there is a higher level of participation online, with more interactions with the students and between the students. He explains that in the F2F classroom the instructor is present as a physical authoritarian figure that inhibits the conversation. Conversely, even though the instructor is 'present' online, the students feel more comfortable posting right away. Their personas are less inhibited online. They share more intimately. The connections seem to be better, deeper, and stronger. For example, icebreaker activities are more meaningful than the usual introductions. They share more about themselves and get to know each other on a deeper level than what usually happens in the classroom. Foster uses different activities to build teamwork in the class, which he feels really help the students.

Foster feels that the biggest single advantage of online education is the flexibility and access it gives to students who otherwise would not be able to pursue higher education because of work, family responsibilities and location. He has a number of his students who are in the Armed Forces; in fact, two of his current students are in Afghanistan. Access to an online course or online

program allows them to keep working on their education while out of the country. Foster does not feel that the learning in the online classes is better than the learning in F2F classes. It might be as good but it is generally not better. Regardless for him, online is a viable option for those who cannot take F2F classes.

Another advantage is that because the online environment is largely text-based, there is a permanent record of everyone's comments in their postings. Not only does this help him with verification of what was said and when, if there is a concern or question raised, but it also makes the students more accountable for what they say. Having this permanent record to refer back to is definitely an improvement over the oral communication that happens in the classroom.

Building a supportive online classroom is very important to Foster and he feels he does this very well in his courses. One way he accomplishes this, in both online and F2F classes, is to encourage his students to form small study groups immediately at the beginning of the semester. Historically, those students who participate in these small study groups tend to get at least one-half of a grade higher in their outcomes, a fact he shares with all of his students. He has noticed that the online students tend to form groups on their own and much quicker than the F2F students. In fact, in the F2F classes, he ends up having to assign them to groups. The students seem to make stronger connections much quicker online. Foster has noticed that the students are extremely kind in the beginning of the semester, when everyone is getting to know each other, with an

abundance of very enthusiastic and encouraging posts. They tend to try to be friendly longer through the semester because that is what is expected in peer-to-peer interactions online.

These small groups help the students build extensive community online, which is important in Math and Statistics classes because there is a prevalence of math anxiety among students. It is not one of their favorite subjects and they are afraid of it. In the small groups online, they have a place to share their fears and anxiety. This serves as a morale booster, a support group. They find that the fear and anxiety is shared amongst them and they do not feel so alone. One way this happens online is through a topic he posts in the discussions called 'Ask a Prof'. Students can post their questions in this discussion. Fellow students will respond saying that they had the same question. As a result they decide to form a small study group. Foster believes that these discussions and small groups not only provide emotionally support but also serve to reduce math anxiety. This works both in F2F and online modes, but the students are more likely to take the initiative to form these groups online.

Foster also builds a supportive class by allowing students to resubmit their assignments as many times as it takes for them to understand the concepts and do the assignments correctly. In fact, he encourages them to keep working at the assignment until they get it right. The more they struggle with the concepts and processes the better they are going to understand it. It also helps them with their participation and also to learn how to self-edit their submissions before posting

them. Early in the semester there are many resubmits from each student, but the frequency lessens as the semester progresses because they are not so anxious about getting the assignment done but focus more on whether or not they did the assignment right. Based on comments from the students, this has earned him a lot of bonus points. He also gives take-home quizzes and tests online and allows the students to work together on them.

Lastly, in order to build a supportive and encouraging community in his classes, he pays attention to how he responds to his students. He always offers encouraging, supportive feedback, tries to encourage them to keep trying, keep improving. He has never returned a negatively worded feedback comment to any student. In fact, he tries to be a cheerleader, which takes much more time on his part, but the return on investment is worth it. His attrition rates are significantly less than those across the university in online courses. The average attrition rate on campus is above 30% and he loses less than 10% of his students. He attributes this to the fact that he designed the course to be a flexible, supportive learning environment, and his instruction is very supportive and encouraging.

In terms of outcomes, Foster noticed that his courses result in a more even grade distribution, a smooth bell curve, whereas the institution overall is more bi-modal, with a spike in the C to D range and the B to A range. He attributes this to the following:

- The fact that there is more individual accountability for the students
- They feel that they own their work

- They can work as hard as it takes to get it right through multiple submissions
- They are able to connect on a deeper level through their online study groups
- He is very supportive and encouraging in his feedback and responses to the students

Foster does not teach a blended course and probably would not because it would hinder the flexibility and access for the course. But if he were to blend his courses, he would keep the final assessment in the physical classroom. He would also keep some of the F2F interactions in the classroom. Overall, a distinct advantage of the online environment is time management. Online he can cover more material more thoroughly. He is able to give constructive feedback through a dialogue-type process to each individual student, something that there just is not time to do in the F2F classroom. Because he has take-home quizzes and tests, he does not lose the three or four weeks of class time that is normally devoted to administering these assessments. Having this extra time allows him to go deeper into the materials, which produces a much richer learning environment.

Lastly, Foster uses the assessments as a formative assessment of his course design and instruction throughout the semester.

If I see that the group can't figure it out, then I haven't done my job as the instructor and we need to go back through that content (Foster interview notes, 2/10/06).

Foster is very pleased with the outcomes of his online courses and enjoys the challenge that teaching online provides.

Case #5 - George

George came to online teaching in 2001 when his dean approached him with an opportunity and a stipend. His institution wanted to develop an online course that all undergraduates would be required to take in their first year of school. He was a bit taken aback because he knew nothing of online teaching or online pedagogy. He worked on a team with three other professors, who had some experience with online teaching, and an instructional designer. The instructional designer took the materials they developed and put them into the course shell. They were given 10 weeks to develop the course before running a summer pilot. They then trained other faculty members to teach the course and rolled out 50 sections the next fall. To their surprise, this course won recognition the following year.

George worked on a second course with one other faculty member from the first project and two new members who were subject-matter experts. They used what they learned from the first course development process to create this second course. He is now working on a third course by himself. All of these courses were created solely for the online environment; they were not already in existence in the F2F classroom. The institution requires that all students take four courses online, one course that all students take and then one from the college, and lastly, two courses from each department.

There were two instructional designers on-site when George worked on the second course and one of them helped in the development of the more interactive pieces. They gave her the design and content and told her how it should work, and she created the interactive web objects that were put into the course. They adopted a graphical theme for this course using postage stamps from around the world.

He does not have any instructional design assistance for the course he is currently designing. He is not going to include any interactive pieces but rather use lecture notes and what is available out on the Web to enhance the course content.

Even though George won an award as an exemplary online instructor, he does not feel that he is an expert on teaching online. Regardless, he has put a lot of thought about what works for him and his discipline, and discussion is at the top of that list. He wants his students to demonstrate that they can have candid but civil conversations with other people about complex and controversial subjects. George expands this thought,

Life cannot be undertaken in isolation – simply by thinking one’s own thoughts – but must become a collective and collaborative activity in which one’s thoughts (including prejudices and assumptions, as well as more considered views) are subjected to criticism by others. This is an activity that I want students to practice wherever life takes them; the online learning environment, compared with the traditional classroom, offers more opportunities (literally more time) for such interactions (George, 2/23/06).

The best way he has found to evaluate whether students can engage in this type of discussion is by observing them having these conversations in the online environment.

George has tried to use structured debates, but the students do not like them and they do not really allow him to observe the competency he is looking for. The advantage of online technology is that there is more time for students to interact with each other and demonstrate this competency. He also invites outside experts into the classroom to engage in discussions that model the competency he is promoting:

The on-line format allows me to stretch a single discussion topic over an entire week (168 hours) rather than cramming it into an hour long class period. It also allows me to conduct parallel discussions on a single topic at different levels -- for example, I might establish a discussion thread dealing with the fundamentals of Descartes' "I think therefore I am" argument, a second thread dealing with the implications of this argument for belief in God, and a third thread dealing with differences between rationalism and empiricism. Some students may need more time on the fundamentals -- this is possible on-line. However, in a traditional classroom setting many students are reluctant to slow the discussion down until "they get it". By default, the discussion almost always is calibrated to suit the quicker students. The instructor who does slow the discussion down is liable to lose or frustrate the quicker students. The online format pretty much makes this problem disappear (George, 2/23/06).

Additionally, because the online, asynchronous discussions are not constrained by the time limit of a traditional class, subjects can be probed at a greater depth than in the traditional classroom. Opportunities for dialogue are amplified online, largely because students are able to reflect before interacting.

I find that students are able to respond to questions and provocations with different levels of agility. When employing the Socratic Method in traditional f2f settings, I have observed that many students are unable to cope with questions directed or redirected at them. They simply can't formulate their responses quickly enough to suit the pace of the class (which must pack an entire discussion into an hour class session). We might be tempted to call these students "shy" or even "slow" (in a pejorative sense). However, they aren't, necessarily, shy or slow at all. Indeed, when they have time to reflect and consider their responses to questions and provocations, they prove themselves to be both quite forceful and quite capable of making nuanced contributions to class discussion (George, 2/23/06).

George has noticed some profound effects on his students. Having some students in both online and F2F classes has allowed him to observe their participation in both settings. He has found himself surprised and impressed by the differences in the level and depth of their performances online. In one particular instance, a group of students who were all in the same F2F and online classes commented on how much they enjoyed the online contributions of one particularly prolific classmate who apparently maintained stoic silence in the F2F classroom.

George also believes that the prolonged, deeper discussions help many students with their other course work, especially essays. He has seen some students use the discussion boards to try out ideas and interpretations on fellow students that will later appear in their papers. He considers the online discussion not to be a part of preparation for doing course work, but the actual course work. Thus he assigns the online discussions approximately 50% of the final course grade.

Another way that George uses the online discussions advantageously is to invite global scholars and experts into the online course to engage in the type of discussions he is trying to teach his students to have. He does not bring guest speakers into his F2F classes, but if he did, he would want them to lecture on a specific topic for an hour or two. The benefit of having a guest in the online classroom is that they can interact with the class over several days or weeks.

One activity that George does not attempt online is conducting a close reading of some of the more complex philosophical texts. It would be quite tedious online and he is not confident enough of his online teaching capabilities to be able to carry it off. He would much rather sit around a table F2F to “parse tricky passages in real-time” (George, 2/23/06). In fact, as they designed the online courses, they intentionally chose readings that would lend themselves well to the online environment, choosing, for instance, an 80-page text rather than a 400-page text. He feels that the advantage of designing a course initially for the online environment, rather than converting from the F2F environment, is that one can make decisions to use the environment most advantageously.

If George were to design a blended course, he would keep some of the research activities online because that is where the resources are available. He would definitely keep the discussions online and in fact, tried that in one course. The students were not very favorable to it though because the way he designed the discussions, they were in addition to coming to the campus every week for three and a half hours. They felt it was adding too much additional work. Now he

is thinking about having one-hour weekly meetings with the rest of the course online. He added though that it is hard to get the students to think of the course as a F2F enhanced Web course, rather than a Web enhanced F2F course, which is how he views it.

Students love the flexibility that the online courses give them. Some of the students at George's university take daytime classes, but many of them work fulltime and have families, so they take evening classes. The online option works well for them because they may be limited to coming to campus three days a week. Many of the students use a blended schedule to manage their work and family schedules. They will take three courses F2F and one course online.

Even though there is some resistance to online courses at the university from both students and faculty, the Philosophy and Humanities department has done a good job at increasing the number of online offerings and advising their students into these courses. Presently, about a third of the department courses are being offered online. This gives students much more flexibility in their options for the two department-level online courses they are required to take.

George does not feel that online courses are better than F2F courses. He does, however, believe that they are different, just as a small seminar class is much different than a large lecture class. Some content is better taught in small groups rather than in large lecture halls, and some content is better taught online, such as his discussion competency. He has also come to realize that some teachers are much better teachers online than they are in the classroom for a

number of reasons. Some instructors, whether it is temperament or set of communications skills, just perform better online. By comparison, some instructors could not teach a large lecture class without wilting or getting overwhelmed. Thus, it is not that online is better across the board, it may be a better choice for many people and for particular content.

If George had his choice, he would teach one evening course a semester, one in which he could gather around a table with a small group of students and engage in seminar style teaching. Regardless, he strongly supports the university in their online initiatives and has and continues to enjoy his experiences with teaching online. He also appreciates the benefits that online courses bring to his students so that they can be successful in their pursuit of higher education.

Case #6 – Laurie

Laurie teaches writing at a 2-year institution and has been teaching in the classroom for 10 years and online for five years. She was able to take advantage of assistance provided through her college for instructional design, web and media design. Before she designed her online course, she took a three-week seminar on how to use the course management system and basic instructional design concepts. Two of the most revealing aspects of the seminar that impacted her course design were going through audience identification and writing good learning objectives. She discovered that some of the activities that she had been using in her courses were not meeting any of the learning objectives. She was using them because she always had or because she thought that it would

enhance learning, but they were not adding anything to the student learning experience. The students would refer to these activities as 'busy work'. That was an eye-opener for her and she made changes in her F2F classes, as well as keeping this in mind as she designed her online course.

Laurie also learned how to set expectations for her students and to give clear directions for course participation. In the online discussions, this includes the content and frequency of postings. She feels that there is better and more interaction online if the course design is good and the instructor is very interactive.

There are a few activities that she feels are much more effective online than in the classroom. One activity she calls the Trio Debate. In the F2F classroom, she divides the class into groups of three students. They take turns speaking non-stop for three minutes at a time, the first in support of the issue, then second against it, and the third student compiles and synthesizes the debate. She uses this assignment as a springboard for the writing assignment. The summaries are not very substantive because it was hard to capture everything that is spoken in that short period of time. When she designed this activity for her online course, it was much better because everyone posted their comments and had time to synthesize and process the two sides. The student responses online were longer, more thoughtful, and displayed deeper levels of critical thinking. Additionally, their individual written assignments were much better and the students received higher marks.

This activity works much better online because students can read and think about the posts and have more time to absorb, synthesize, analyze and compile and it shows in their written assignments (Laurie, 1/30/06).

Laurie also likes how visible the students are in the online class. She acknowledges that those who do the work, do better work online. Students who are not doing their work are apparent in both online and F2F courses, but are identified through different indicators. On campus, they might be coming to class but not doing the work, or they may not be coming to class at all and yet be doing the work. Online, they must post, send email or complete activities, such as quizzes, to be visible. They must be active to 'show up in class'.

Laurie taught the writing class online in a blended format for about 18 months before going completely online. This gave her a chance to experiment with various activities to see which would work well online. One of the activities that she feels she must keep online is what she calls the *View From Here*. This is a weekly reflection that the students post after completing each assignment. In this post, they are given a chance to reflect on the assignment they just completed and how they feel about it. How did they do? What they thought of the assignment, etc? Even though they know that the instructor and their peers read all of the comments, she finds that they share more openly in the online discussions that they do in the F2F class. They post comments that they would never share in the classroom.

You get a level of honesty and openness that you would never be able to duplicate in a verbal discussion, a verbal conversation in the classroom (Laurie, 1/30/06).

It is not like an informal blogging space because they acknowledge that fellow students are reading the comments. Normally, Laurie does not respond to the postings in this thread. The only time she steps in is when she sees a problem and then she usually replies by private email to address the situation.

Another activity that is more successful and effective online is her Questions thread. She actually divides this into two separate threads; one called Muddiest Point and the other Tech Woes. The students can post anonymously in either thread, which has increased the number of questions and postings. She notices that there are more questions asked in these two threads and that the questions asked are not asked in the classroom. Since they can post anonymously, their name is not attached to what the student might feel is a 'stupid question'. These are the only two threads that she allows anonymous postings, but by doing so, she feels that the students are much more likely to ask the questions and respond to others (something that she encourages) much more so than in the classroom. As a teaching technique, she will respond immediately to these postings at the beginning of the semester, but then around the 3rd or 4th week she holds off replying and encourages the students to help each other out, and they do. Laurie will readily admit that doing so is very difficult for her because the temptation to respond immediately is very strong. But she has seen the benefit of encouraging and allowing the peer-to-peer interaction in

her courses and so disciplines herself to not jump in so quickly. She uses sticky notes to keep track of the questions to make sure that she goes back to see that they were answered properly.

Not all activities work this well online, at least not the first time. One activity she tried in her blended course ended up being a disaster. This was a peer review activity that she has her students engage in. Initially, she thought that the discussion board would be the perfect medium in which to conduct the peer reviews. Her thinking was that they could post their assignments in the discussion board and combined with email, have others review their papers and make comments. They would have more time to read, consider and comment on each other's papers. She would hold one training session face-to-face in a computer lab and then send them on their way online. But she found that the students needed more training on how to do peer reviews. The one lab session was not enough and they floundered. Additionally, the workload for her was overwhelming. Most of the reviewing and interchange was happening in email. The sheer volume of email and the need to organize the emails by assignment was too much. So now she takes more F2F time to train the students on how to do peer reviews and has started using third party Web-based peer review software to help with this activity. All comments and the writing assignments are posted in the same place, making it much more efficient for her and the students to engage in this activity.

There came a turning point in her blended class when she felt really good about it and that was when she was able to put all of her content online in content modules. She knew this was a turning point because she started receiving better student evaluations. The students commented that they felt it was a better class because they could see the connections between the content, activities, assessments, and learning objectives. Class time could now be used more productively and purposefully for their learning activities. It also freed up class time to do more meaningful F2F activities. For instance, several times during a semester, she will set up centers in the classroom, much like the centers in a Kindergarten class, where the students can choose a center to go to and work with other students on a particular activity. Center activities might be Idea Mapping, Free Writing, or Brainstorming. This takes a lot of preparation on her part but the students have reported that they really like these activities and it helps them with their learning. This feedback helped her with her course design process and her ability to figure out which activities were just 'busy work' and which really were connected to the learning objectives.

Laurie shared some of the anonymous comments gathered from spring 2003 to fall 2005 that she received from a post-course survey of her online students. They were asked to compare their online learning experience with their classroom-based experience. Of the 114 responses, 83% of the comments indicated that the online experience was better than the classroom experience, 21% said it was the same and only 9% said they would prefer learning in the

classroom. Many of the comments credited Laurie's ability as an online instructor as being the reason they enjoyed learning online, but many of them also mentioned two other reasons they liked the online course; access and flexibility, and that fact that they feel much less inhibited online, more open and willing to share.

The amount of material I got from this course went way beyond a classroom English class. On the internet, I'm not so intimidated, so I am able to ask more questions without fear (Student Comment, Post-course Survey).

I actually enjoyed this online class very much. I took English 100 in a classroom and I can honestly say the online version is better. Everything was organized and you still have interaction with the teacher and your classmates. But you know when the deadlines are & you can work at your own pace (Student Comment, Post-course Survey).

I prefer going into a classroom to taking an online course, but online courses do offer a more relaxed environment, which makes test taking easier (Student Comment, Post-course Survey).

I learn a lot better in a classroom setting instead because I can take notes and stay more focused (Student Comment, Post-course Survey).

It's sort of the same. The effort you put in, is what you get. If you take the time to ask for help you will learn (Student Comment, Post-course Survey).

Although the teacher interaction with students is different, I still enjoy both DE and traditional classroom settings (Student Comment, Post-course Survey).

Laurie enjoys teaching both online and in the blended mode. She observed that one way in which teaching online has helped her as an instructor is that she is more expressive in her emails and postings to students than she is in the classroom. She lets more of her personality come through online than she

does F2F. Even so, she does not think she would like to teach solely online. Her college does not allow for any instructors to only teach online, and she likes being physically present on campus, not only for her students, but also for her own needs. She likes being around her colleagues on campus. It gives her a 'center' and helps her feel more grounded when she is on campus.

Case #7 – Mary

Mary teaches in the English department at a 4-year institution as adjunct faculty. She also works in her institution's instructional technology center as an Instructional Media Specialist and helps faculty learn the course management system and develop their courses. Teaching is her first love so when she took the instructional specialist job, it was under the condition that she would keep teaching. She has been teaching F2F for 21 years and online for six years.

Mary uses a very flexible style in her teaching, both online and F2F. As she explains,

I might add that I lived in New Zealand for five years where the education format is continuous intake (you start on your fifth birthday in contrast to all starting in August) and year-round schooling (in contrast to our summer vacation plan), with advancement when warranted, even to the point of skipping forms (grade levels) (in contrast to our broad scheme of passing or not at the end of a term.) A student might be learning 2nd form English, 3rd form math, and 4th form science.

Whatever their learning level is, that's where they are. I saw (and loved) the efficacy of teaching across the curriculum to students at a particular level of learning (instead of in an age bracket). Teachers were far more flexible than in our system. And because it's the normal situation there, the teachers don't develop an attitude of 'gee, that's too hard to do.' I think I took that flexible attitude when I started teaching college-level students (Mary, 2/14/06).

Mary feels that she has more flexibility online in course design than F2F. She has designed her course to have a measure of self-paced instruction. Through the use of a Learning Agreement, the students are able to choose between a syllabus-based plan, with both self-paced or assigned dues dates, and a self-designed plan. The students who pick the self-designed plan are required to meet with her in the first week of the semester to plan the course. The students who desire to follow the syllabus can choose between self-pacing timing or due date timing to turn in course work. The self-paced timing allows them to work and turn in assignments on their own schedule as long as they do not exceed the final due dates posted in the syllabus, which are staggered throughout the semester. This prevents them from waiting until the last week of the semester to turn in all of their assignments, but allows them to schedule their course work around their busy lives.

I often have non-traditional students in my online class: pregnant women, 8-5 working people, and true distance education people who also have time constraints (military, an opera singer, etc.). For them to be constrained to one time slot for a class is really painful and hampers their learning. By letting them choose the self-paced plan, they can circumvent the stress of getting a paper in by, say, 8:00 a.m. because they could turn it in at midnight the night before, or 10:00 a.m. when they get off work, etc (Mary, 2/14/06).

Mary also allows the students to either following the learning objectives that are set out in the syllabus or create their own. A student might desire creating unique learning objectives if they are in specialized degree programs that require specialized writing skills. They must meet with her to set the objectives. She

admits that many of her students choose to follow the syllabus, but those that choose the self-paced plan have responded positively to the flexibility.

[They] avoid doing sloppy work, rushed work just to hit a time slot (Mary, 2/14/06).

The students that choose the more structured mode have expressed that they have been challenged to become more self-disciplined to meet the schedule, knowing it is up to them to be responsible and get the work turned in.

This method works very well for the online students. She used it in the past when she was teaching F2F full time.

When I was teaching f2f, I did much the same thing. And, when I had four sections of the same course, I allowed students to attend ANY of the four. Needless to say, my records showed close to 100% attendance, since students could pick a day or time that worked around any planned absences. Some would even attend the “same” lecture twice to pick up missed or misunderstood info (Mary, 2/14/06).

Participation is one of the aspects of the online environment that Mary feels is much more effective. She sees 100% participation in her online courses as opposed to about 50% in F2F. Mary gives lots of individualized feedback to her students through a highly interactive course. Feedback from students indicates that as a result, they feel that she expects and elicits better work from them. When she first started teaching online, she focused on community-building activities to help the online students not feel so isolated. An unexpected outcome has been the creation of a very active community of learners who are more involved in each other’s learning than she has ever experienced before.

The students appear to enjoy the community of learners more than before and to get actively involved in one another's learning. They certainly communicate more (around 2000 Mail messages for a class of 40 students last semester, plus more communication in Discussion and Chat) (Mary, 2/14/06).

Mary uses a combination of communication tools in her online class such as synchronous chat, asynchronous discussions, and email. She feels that these meet different learning styles in ways that are more manageable online than they are in the F2F class.

I've discovered that those "social learners" in an online class LOVE the chats where they can interact with one another and me in a synchronous frame. Also, the students who have a difficult time thinking of quick responses and who need time to reflect on answers, who agonize over the right word, are absolutely blooming in the online environment, especially in group work where they aren't overrun by the socially dominant personalities (Mary, 2/14/06).

Mary also appreciates the functionality of the course management system that allows her to track students' progress through the content so that she can monitor student activity and pro-actively handle problems before learning outcomes are negatively affected.

I either change a procedure I've been using, change a content page, or communicate with students affected. For instance, I post chat logs after each "lecture" chat; when I saw that students missing the chats were also NOT accessing the chat logs in a content module (which are tracked), I was able to email them and suggest they do so. Consequently, those absent students did so and got the information they had missed. Absent students in a f2f class have to get notes from other students, and I have no way to monitor that (Mary, 2/14/06).

She also has been able to put more self-paced content in the course and the students take advantage of it.

They take the 14 quizzes even though the grades don't count in their average, then they go back and retake them (up to three times) in an effort to "beat their own score", and in the process learn the content (Mary, 2/14/06).

Mary has received positive feedback from her students about their learning experience in her course:

Your comments help me greatly. I'm having to learn to take myself outside the normal way I have been writing. My business writing should improve greatly from this course and your input. Thank you for giving it (Mary, 2/14/06).

Your comments are very helpful and make writing look so easy. I hope I'm learning to change my thinking process while learning to write clearly. Thank you! (Mary, 2/14/06).

Thank you for all your help. Actually I did realize that I learn better with some type of interaction, that is why I was nervous about taking this class (Mary, 2/14/06).

Mary feels that she grades harder, with much more detailed feedback, than she used to in the F2F class, but she has more 'A's.

I think part of that is because in f2f classes I could just put a grade on the papers with a few marks and expect students to ask for clarification when needed. But in the online classes, I have to put ALL the comments in writing, enabling the students to peruse, review, and think about the rewriting process. It also forces me to be careful about the effect my comments have as models—they can re-read my words, so I have to make sure I'm writing in a style worth emulating. My own skills have been sharpened through the process (Mary, 2/14/06).

The only activity she keeps in the physical classroom is the orientation meeting at the beginning of each semester. She likes to be able to put a face and voice with a name, so she enjoys meeting them the first day. Meeting her the first

day also helps students realize that she is a real person online, one that is concerned about their welfare.

If I couldn't have that orientation, I'd just have to beef up my online class with audio and video to do the same thing. As technology advances and mini-cams grow more prevalent, I expect that to be the norm (Mary, 2/14/06).

Mary feels that there are a number of activities that she must keep in the online environment, even if she went back to teaching F2F.

I would keep the discussion board, online grade book, and content-availability (so they can refer to the syllabus, handouts, and lecture notes at any time) (Mary, 2/14/06).

These are aspects of the online environment that she feels she cannot duplicate as effectively or successfully in the F2F classroom.

Mary enjoys teaching online. She loves using the course management system and figuring out ways to use the technology effectively for student learning. She shares her knowledge and joy of the online environment with fellow faculty members, helping them learn how to design and instruct in effective online learning environments.

Case #8 – Nicole

Nicole is an associate professor of Linguistics at a 4-year institution. She has been teaching for 24 years, with 2 ½ years of teaching online. She became involved with teaching online through a grant program that was being administered through the university's Center for Distributed Learning. Nicole and another faculty member in Linguistics developed the introductory course for their

program as an online course in 2002. It took them about a year to complete it, but they had assistance from the staff at the Center. They wrote the content and came up with the ideas for the interactions and graphics. They would meet weekly with the project manager and media technicians to present their ideas and to see if they could be done, and how, online. Nicole and her partner did not know the technology, did not know what was possible, so the staff helped them determine how to build the course online.

We would not have been able to design and develop the course without the assistance of the team at CDL. I didn't even know what [the course management system] looked like, hadn't even logged on. I had heard that you could create your own course, but I had no idea of how to do that. Even the PowerPoints needed to be reprogrammed so that they would work the way we wanted them to. They [the staff in the Center] helped with compliance issues, such as scripts for audio and video files and ALT tags for interactions; we wouldn't have thought to do that (Nicole, 2/24/06).

Nicole provided the scripts of the video and audio to the media technician, who then used it to produce the media for the course. Without this support, she does not feel they would have done this course, because no one else in the department was interested in teaching online or developing online courses.

One aspect of the linguistics courses that Nicole feels is much more effective than F2F is being able to use multimedia in the content. Students who take the introductory course have not had any prior experience with linguistics, so it is very difficult for them to grasp the concepts. They need to learn the International Phonetic Alphabet to understand how the sounds of language can be represented by phonetic symbols. They used a lot of audio, video and Flash

animations for their content. This content is available to the students all of the time, whenever they need it. This gives them many opportunities to work with the content. The students can click on a word or a symbol and hear how each is pronounced, as many times as they need to in order to get it.

We have a lot of examples, so when we explain a process in the class, it's not enough [just] to say that these two sounds are the same except for one quality of it; if they don't hear it, they aren't going to get it. Even F2F they can hear it out loud, they'll hear it in the classroom, but as soon as they walk out the door it's up to them to remember it (Nicole, 2/24/06).

Nicole says there are web sites that the students can go to that provide the same reinforcement, but who knows if they will use them or not. Having the media in the course makes it easier for the students, making the sounds available to them any time, where they can get to them easily.

Others types of content included in the course are PowerPoints that explain processes in writing, short interactions, and practice assignments.

There are many more opportunities for self-check and also for reviewing materials. If they don't really understand what's in the first two units of the course they are going to have trouble in the following units. But if they realize they didn't get it, it's always there and they can go back and work through it again (Nicole, 2/24/06).

Nicole also thinks that having the content online is more advantageous over the F2F classroom because the students tend to be more focused on the content.

Some students don't take good notes or they aren't paying attention in class, so they have to rely on the textbook, which just doesn't explain it to the level that they really need (Nicole, 2/24/06).

With the content online, they can go over it as many times as they need to and at their own pace.

The online environment also allows them to cover more content than they can in a F2F course. Because it is much more structured, they have been able to standardize the content. This is advantageous for two reasons; 1) the intro course is the prerequisite course for all students coming into the program and 2) they have adjuncts teaching some of the sections of the course now.

It's good because we can standardize the content especially since it's a prereq class. It's important to do that so we know what they know when they go into the next class. It also helps us know that all students going into the next class have gone through the same content, even if individual instructors teach it differently (Nicole, 2/24/06).

Nicole acknowledges that that online learning is not for everybody.

Fortunately those who realize that might drop, but others don't and then they end up having to repeat. They realize they need to be self-disciplined and no one is forcing them to do it. It's a really good option, for access and flexibility. I like the fact that we have an option. If they want to come to class, they can. If they need the flexibility of an online course because of logistics or family, or they prefer the online environment, we've got that also. And now we've got the blended, which we're hoping provides a happy medium, middle ground. In the blended version the content is online and F2F will be complimentary where students meet with the professor. Some students prefer to take the class online, because this is one less class that they have to come to campus to take. They might live in the next city, or they are coming to campus for some of their other courses, but this is one less that they need to come to campus for (Nicole, 2/24/06).

They have not marketed the program much out of the state, but they have some students from other institutions who have taken the online course to complete their own program. One student lived hundreds of miles away, but

could not take the course on her own campus and needed it to complete her degree. This was a viable option for her. Nicole realizes that students nowadays are different than they used to be, and have more options in how they pursue their education. She thinks this is a good thing. Having the online option also is part of their larger plan to offer their TESOL Certificate online. This will particularly be good for international students, which is where Nicole feels their next market is going to be.

Nicole was surprised at some of the outcomes for the students.

What is NOT happening is students flunking because even though the content is online, they can't get to an instructor. If someone isn't successful, it's not because of this course. It's probably because they aren't cut out for learning online (Nicole, 2/24/06).

In her course, she feels that the students have more opportunities to work with the content and think about the topics because they log into the class all the time, not just twice a week, as they do when they come to class. Nicole explained that the course uses the discussion threads for practice and review.

With the discussion topics, the instructors can tell if the students are getting it or not. If they aren't getting it when they post something, you can catch it and make recommendations on what to review (Nicole, 2/24/06).

Not all students like to post, but they seem more willing to post questions and the discussions give more opportunities for student involvement.

Nicole has changed the design of some of the activities. She converted some of the individual discussion postings to small group activities. The result has been longer and much more thoughtful posts because the students have

fewer posts to read and respond to. She sees much more discussion going on. She does not know if she could have the same level of interaction in the F2F classes and cover all of the content for the semester. The students like having the content online because they do not have to buy a textbook.

The small group discussions are working very well. They have cut down on the huge time commitment for the instructor. Nicole observed that one instructor just could not keep up with all of the posts before they made the switch to smaller groups.

The smaller groups makes [the students] more responsible to each other and everyone needs to make sure that what the leader posts is what the group wanted his/her to post. They are posting much longer posts that are really thoughtful. So it became meaningful instead of just another thing that they needed to do to check off their list (Nicole, 2/24/06).

Additionally, having the students work in small groups has freed up her time as the instructor. She does not need to closely monitor the small group discussion threads but instead allows them to interact with each other.

Nicole's partner has recently taught some of the courses that follow the online courses in the program sequence. She made the observation that she felt the students were better prepared for the next class. Nicole wonders if it is because they have to take responsibility for their learning in the online courses much more than F2F, and because they cover more material.

There are no aspects or activities that Nicole feels she must keep in her classroom. The online course is fully functional and stands on its own because they designed it for the online environment first. Everything in the online course

works. When they were asked to make the online course a blended course, it was very challenging.

Because we don't need the F2F component it was a challenge to decide what to do blended. Initially we gave the students additional problems to solve in class, but many felt they didn't need the extra practice, so they weren't coming. So we changed it the next semester so that they have to come into class to present some discussion topics or to complete an assignment and they get a grade for these. We didn't want to take any of the content out of the online course and bring it into the classroom. So they aren't getting anything new, but instead are getting additional information. Some professors on campus who are doing the blended classes aren't putting all of the content online so that the students must come to class to get all of it. Others are doing case-study type of activities that students have to do in class. That didn't lend itself to our class and our content. So we are still working on how to best use classroom time (Nicole, 2/24/06).

Nicole feels that they have done a really good job with the interactivity and presentation of their content, and have created some pieces that can not be done as well in the classroom.

We've done a really good job using Flash technology to illustrate things that I can't illustrate on the board because things don't move on the board...they have to learn where, how, and the different ways that a sound is produced. They have a self-check with each symbol and then each time they go through this it randomizes the order of the self-check questions. We could go over this in class, but this is nice that they can do it on their own as many times as they need to. We also have animations that show the side-view of the face and the mouth and how everything moves when a sound is made, along with the sound. We can't do this in the class because they can't see inside my mouth. We used Flash animation to illustrate those processes that we just can't do in the classroom (Nicole, 2/24/06).

They also put in a lesson on acoustics, using Flash animations to illustrate how waveforms are shaped and how they behave, something that is invisible to the eye and thus impossible to illustrate in the classroom.

I could draw on the board, but I can't animate them to show how sound really works. The Flash animations made the invisible visible (Nicole, 2/24/06).

Without the assistance of the team in the Center, Nicole knows they would not have been able to come close to the quality of course materials that they have. They felt a little overwhelmed when they started because they did not know the technology or what it could do.

We were really discouraged by our colleagues because they kept saying that we couldn't do this online because of our content. But we did it and we think it's better than F2F! (Nicole, 2/24/06)

In fact, Nicole feels that she will teach this class very differently if she gets a chance to teach it in the F2F classroom again because of all the preparation and extensive reading that was necessary to create the online course to the level that they did. She will bring much more to the class now after teaching it online. Also, she uses the threaded discussion tool of the course management system to conduct online discussions in each of her F2F courses.

In fact, I can't teach a class anymore without having an online component, even if it is just discussions (Nicole, 2/24/06).

Nicole and her colleague have been recognized as exemplary online instructors because of their commitment to creating the best online learning environment possible for their students.

Case #9 – Pete

Pete is a professor of Psychology at a 2-year institution who has been teaching for 38 years. He has been teaching online for 9 years. Pete became

involved in online learning in 1997 when his county community college joined forces with the state system in a collaborative initiative to increase student access to higher education via development of online asynchronous courses. Pete was at the time the Director of Distance Learning, he was teaching, and providing faculty support for, synchronously via 2-way compressed video, and he easily transitioned into the online format.

Pete feels that there are three aspects of his courses that are more effective online; discussion, term projects, and written assignments. He likes asynchronous discussions because it allows for all students to be involved, not just a few. He structures his discussion assignments in a way that supports equal participation for all. He requires each student to submit a discussion question from each chapter. The student is charged with the responsibility of facilitating that discussion, and also actively participates in three other discussions facilitated by other students. In this way, the discussions are design to be nearly 100% student-centered. The students decide what questions to ask, which discussions to participate in, what websites to review and include in their responses and to use for further research. Students also decide what level of achievement they want to attain.

I rate each post on the quality of the subject and the quality of the comment using a published rubric. Students are able to participate in multiple discussions online, something that is impossible in the classroom (Pete, 2/12/06).

Pete has noticed that in these discussions, the responses are more considered and thoughtful than in a F2F class. Many of the students' submissions include references to the textbook and /or website sources, sometimes links are provided.

They can introduce comments with subjects that provide an advance organizer for the discussion. This helps the student rethink and reorganizer his or her thoughts and give the readers the salient information they need to mentally prepare to learn (Pete, 2/12/06).

He also provides a grading rubric so that students can see exactly what is expected of them in these discussions.

Conducting discussions online also allows personal factors such as self-concept to be less inhibiting.

Students who have a negative perception of their body type or facial features are often reluctant to speak out in a public forum (Pete, 2/12/06).

Online these concerns are minimized because they are not physically present in the classroom.

Pete is also able to provide ongoing feedback concerning the quality of responses. Even though he does not participate in the student-led discussions, he posts comments in a separate thread called *Talk With The Professor*.

Students can ask me for clarification, and I can introduce additional issues there. Each post, each comment adds teaching presence to the course (Pete, 2/12/06).

Even though he does not directly participate in the discussions, the students know he is there and reading all of the posts.

Pete also asks the students to research and discuss the issue of what critical thinking means. This helps them use and promote critical thinking when they design and facilitate their discussions.

A second aspect that Pete feels is more effective and successful online is term projects. The online environment allows the students to collaborate in the selection of the research topic, finding and choosing the needed sources, and organizing the paper. Drafts can be submitted for peer review, which helps them to learn from each other. Lastly, final versions can be submitted for class or group discussion. The instructor can monitor the online collaborations, something that is not possible in the classroom. Again, this activity is a great way to promote student-centered learning and the online environment facilitates the process.

The third aspect Pete thinks is advantageously conducted online is written assignments. Feedback can be much more rapid online because the instructor can follow the discussions and submissions throughout the process, not just at the end when the assignment is turned in, or when a discussion is carried out. This is important in his course because the discussions are the exams.

I evaluate every discussion submission. In the classroom, the best I could do was a crude estimate of class participation (Pete, 2/12/06).

Additionally, assignments are shared and discussed online, which increases learner participation and reflection on their assignments.

Pete feels that some professors are able to create effective learning environments F2F, but in his opinion, it is pretty difficult to do.

However, it's pretty easy to attain in the asynchronous environment. Students enjoy dialoging with one another. All I have to do is provide the content, the discipline, and the pacing. Most students tell me they enjoy taking the responsibility for their own learning. And remember, most of my students are first or second year community college students (Pete , 2/12/06).

Pete employs a different strategy in his discussion assignment, making them more student-centered and active. He asks the students to create the discussion questions and facilitate the resulting discussion. He details the criteria for a good discussion question and handles issues such as duplicate questions and no responses.

Pete has been able to use his 38 years of teaching to create well-designed online courses. He has worked diligently in designing his courses using elements of effective online pedagogy and instructional design. He received a national award, being recognized as an exemplary online instructor, and continues to enjoy teaching online. In fact, he no longer teaches any F2F courses. If he were to return to the classroom, he would use the classroom for exams, multimedia events, and guest speakers and keep the discussions in the online environment. Pete solicits feedback from his students on the course design and continues to use that feedback to improve the course and instruction. As a result of his hard work and passion for student learning, Pete is a nationally recognized exemplary online instructor.

Case #10 – Stan

Stan teaches in the Business department at a 4-year university. He is currently an associate professor but began his teaching career over ten years ago as an adjunct faculty member. He has been teaching online for six years. He was nationally recognized as an award-winning online instructor in 2005. Stan began teaching online when he was an adjunct faculty member. His department needed someone to teach a couple of courses that had already been taught online. He was very curious to see how students learn quantitative content online, so he took on the challenge.

Like many online instructors, the design of Stan's courses has been improved over time. He uses the discussions, but also has incorporated Webcast sessions in his course for the students to be able to access as study aids. He is now adding practice problems into each module to help the student master the content before moving on to the next module.

Stan believes that the online discussions are more effective because every student is required to participate. There can be no lurker, no sitting in the back of the classroom allowing others to carry the conversation and everyone has the opportunity to be vocal and participate without a small group of students dominating the conversation, as they tend to do in the classroom. Stan uses the discussion forum to cover content, discuss issues, problems, and concepts, and questions. He also divides the students into two smaller groups to make the discussions more manageable. Students can view responses in either small

group forum and they get credit for responses in either forum. Stan has also started requiring more substantive posts, including using outside research in the students' responses. As a result, there is more depth and quality of information in the discussion postings.

Since students are required to participate they must exhibit their understanding of the material...they must be able to clearly express themselves in a concise fashion, showing that they have a grasp of the concepts (Stan , 2/12/06).

Stan has always experimented with different ways to engage the students in his online courses. In addition to the discussions, he also uses Webcasts and the electronic whiteboard with great success. As a result, he has started transferring what he is doing in the online course to his F2F course to enhance it. He wants to provide as many different methods as possible to help as many students as possible. Stan explains his teaching philosophy.

If the student benefits then I should find ways to provide that to all my students. Technology is enabling us to offer a variety of learning concepts to match the different learning styles (Stan, 2/12/06).

Stan has recorded multiple Webcast presentations. For the online students, it is a way to convey content. Some of these are nothing more than versions of his F2F presentations, but the students have indicated that they appreciate being able to review what was covered in the F2F class.

The students can use these to review what was essentially covered in class. One advantage for the F2F student is that they can concentrate on listening and learning during the class and not be concerned about

capturing the presentation in note form. As you realize in a F2F classroom, students often focus more on writing down everything and miss the context of the discussion and presentation (Stan, 2/12/06).

He started creating these Webcasts to provide synchronous help sessions, which were also captured for later viewing. He recognized that students learn in different ways and some of the material he used in his F2F course was more challenging to understand in the online course. Before he created the Webcasts, Stan would provide typed narratives of the materials; Excel solutions with typed explanations. He then added help sessions in the Chat room. As a result, moving this material to web-based multimedia presentation was a natural next step. Now both his F2F and online students benefit. Stan uses Webcasts to provide presentations on more complex material, but has also expanded these to include practice problems after each segment of the presentation, thus providing the student the opportunity to master the concept before moving to the next segment of the presentation. It also allows the student to review the concept as many times as necessary to achieve understanding.

Stan uses the electronic whiteboard in a couple of different ways. For the online student, he can conduct one-on-one tutoring sessions, working through complex problems and then allowing the student to work through a problem until they understand it.

For students needing help with a quantitative type problem, I can more easily demonstrate the technique. I can also share the whiteboard with the student who can then indicate understanding by working problems on the whiteboard and I can see the work (Stan, 2/12/06).

He also uses the electronic whiteboard to capture class notes and convert them in to a format that can be accessed online for later review. The students who take advantage of the electronic whiteboard consistently indicate that they understand the concept and express their appreciation. Stan likes it because it enables him to help the student at a distance the same way he helps the student who stops by his office. He even has synchronous help sessions in which both the online and F2F students participant.

The initial time was an experimentation to see if there would be benefits from doing this synchronously. The time was also conducive to experimenting with this, as it was only 2 hours 20 minutes in length. It was a class that focused primarily on statistics, which is more challenging. The benefit to the student is probably limited unless additional questions come from the online students. Another benefit for them is that the session was captured so that the students could view it later. The benefit for the online student was probably greater (Stan, 2/12/06).

There are many indicators of improved student learning in Stan's opinion. The higher quality of the discussions is one improvement, but he has also noticed that the test responses are much better and test performance is improving.

For example, I give a mid-term and a non-comprehensive final. Historically, the scores on the first test always seemed better than on the second test. Usually the analytical concepts are more challenging in the second half of the course. I started focusing my presentations on the concepts in the second half of the course. Now it seems like the students are performing better on the second half concepts. I know it is not because the problems are easier as I use the same basic problems on a rotating basis. As a result, I am even starting to raise the level of my tests (Stan, 2/12/06).

He also feels that the types of questions he receives reflect this increased understanding of the concepts.

Stan also changed the way he gives tests in his courses as a result of teaching online. He came to this method through experimentation.

I previously gave proctored tests. However, I am now giving take home exams. I think I can do a better job of testing, give the students a better chance to exhibit their understanding of the material and I have seen minimal instances of cheating (Stan, 2/12/06).

The students will complain about how long it takes to complete the take-home test, but after talking through various questions, such as 'Did you prepare?', and 'Did you write more on an essay question that you needed to?', or 'Did you use Excel or did you solve the problems by hand?', and 'How much time would you have spent traveling to class and back?', most students figure out that it can take about the same amount of time as the take-home tests.

Stan is also very responsive to his students and pays attention to their feedback about the various methods he uses in his courses.

Students were thanking me for providing these presentations; I received comments that it enabled them to review material again and at times when it would help with assignments; the students said the material really helped and they would continue to view them (Stan, 2/12/06).

Overall, he is receiving favorable feedback on the presentations and feels that student performance is improving as a result.

The only aspect of a course that he would keep in the F2F classroom would be anything that needed to be conducted synchronously. He finds that question and answer often works better F2F, but as he stated,

This does not prevent me from continuing to find ways to improve upon these in the online class. This is one reason why I started with the web cast help sessions, the expanded web cast presentations and the electronic whiteboard for student questions. In some ways, I think that some online students aren't ready for some of these features and sometimes are looking for a correspondence type course. However, as our technology continues to increase there is very little that cannot be moved to the online environment (Stan, 2/12/06).

Stan likes to teach both online and F2F, even though the online courses require about three times as much work as the F2F courses.

However, I think the online class can be more rewarding as the depth of learning is more often greater than in the face-to-face class. There is also more time flexibility in the online class (Stan, 2/12/06).

Additionally, he has changed his teaching approaches as a result of teaching online.

The online environment opened new avenues for me. I teach quant type courses which can be challenging online. So, yes I definitely would have looked for new and better ways to teach my subject matter in the online environment. Of course, I think this is one reason why I probably started teaching online; I was interested, perhaps fascinated, in seeing if quant type courses could be mastered in the online environment (Stan, 2/12/06).

Stan is the first to admit that teaching online has had a tremendous impact on his F2F teaching. He believes that he is a much better teacher and that his courses are much better as a result of teaching online. He is a very reflective teacher and his teaching philosophy pushes him to continually find better ways to teach his subject, whether it be online or in the classroom.

Conclusion

The overarching theme in these case stories is the success and effectiveness of online discussions. All participants expressed the benefit from

conducting online discussions for many reasons; the most important being the fact that the instructor can see evidence of deeper, more critical thinking. Another reason is what is commonly called the 'leveling of the playing field', meaning that all students get a chance to participate and be heard. Lastly, discussions allow for a level of student-to-student interaction that normally is not found in F2F classes.

Other themes include content presentation and the building of an interactive community of learners. These and other themes and issues will be discussed in more detail in the next chapter, which reports on the cross-case analysis of the data.