A CASE STUDY IN COURSE REDESIGN: MULTIMODALITY & FLEXIBILITY FOR STUDENTS AND INSTRUCTORS

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Abstract

This paper presents an exploratory descriptive case study of a credit-bearing university course redesign that addressed two major issues: individual student learning preferences and abilities, and the unique teaching styles and personalities of instructors. The study demonstrates the how a flexible and multimodal approach to course design enabled an environment in which accommodated a diverse group of instructors and students.

Introduction

With the large number of students taking online courses and the enormous amount of information available online, online courses now have the ability to become much more than static web pages, offering students a choice in how they access course materials. In addition, with multi-section courses that are standardized, a multimodal approach offers instructors more choices in how they present the materials. This paper presents a case study on how a credit bearing online information literacy course at a university serving approximately 24,000 students was redesigned to offer several modes of delivery for students and more options for instructors.

This elective course, intended for primarily freshman and sophomore students, is titled *Information Navigator*, and is one of five course options available for students to meet the information literacy requirement at Weber State University (WSU). Because of the multidisciplinary nature of the course and its availability both online and in the classroom, it is the most popular option for students to fulfil the requirement. It is currently one of the largest online courses taught at WSU, with over 16,000 students enrolled in the course offered since 2000 (Stewart Library Annual Reports).

Background and Description of the Course

LIBS 1704 is constructed around the Association of College & Research Libraries (ACRL) Standards for Higher Education framework and its primary goal is to teach students skills to conduct academic research using libraries and the Internet. The course is taught every semester by library faculty and adjunct faculty at Weber State University. The first variation of this course was titled *Internet*

Navigator and was offered as a static web-based course in the late 1990s to all institutions in Utah. This course was freely available on the Web, with course communication delivered almost exclusively via email. In this version, students worked through several course modules. The modules included multiple choice quizzes and assignments, which were submitted to instructors via email, and a final research project, also submitted via email (Hansen, 2001). In 2005, WSU redesigned the course to emphasize WSU's resources and services and the title of the course was changed to *Information Navigator*. Loosely based on the Internet Navigator, the new course was also a static web-based course, but was only available via WSU's online course management system (CMS). Student assessments were housed in the CMS and included both quizzes and assignments; all course material was the same for each instructor.

In 2008, a major redesign project was instigated with the purpose of revising and updating content, and providing more flexibility for both students and instructors. The redesign process took place in several phases, starting with a discussion among faculty who taught the course about potential revisions and future directions of the course. A committee, made up of a subset of this faculty, was formed to carry out the redesign process. Much of the initial discussion focused on the uniformity of the course for each instructor and the particulars of various assignments. It was clear that there was no consensus with regard to what each instructor should or shouldn't cover, how various concepts should be covered, and how concepts should be assessed. This was not surprising since the course follows a multi-section standardized model. These discussions made it clear to the chair of the redesign committee that flexibility should be the overarching theme in the redesign process.

The committee also collected open-ended comments from student course evaluations from the previous five years to inform the redesign process. A surprising number of student comments pertained to the course presentation: some students wanted more interactivity, some wanted printable copies of the materials, and some wanted both. Students also commented on specific aspects of the course they felt were the most valuable and had specific recommendations for improvement. All of these were taken into account in the redesign process.

Some cite the biggest challenge of "design by committee" is that each member has his or her own vision of what the final product should be. Often, there is no unifying vision, and the result is a mish-mash of topics and an overabundance of features that were included to satisfy each individual. On the other hand, a group effort has the potential to bring more experience and creativity to a project, and there are more reviewers to catch errors and inconsistencies. It was with this perspective that the committee redesigned the course, and this perspective that allowed the new course to become flexible enough for all instructors to put their "mark" on it while still satisfying all of the established programmatic learning outcomes.

The first step in the revision process was modifying the existing course outcomes so that they were fewer in number and more broadly worded. This addressed the problem of outcomes being too narrowly defined and becoming outdated as technology changed. This also gave faculty more academic freedom to address the outcomes in the manner that they saw fit. Once the outcomes were defined, the existing course content was removed, updated, or revised as necessary. All faculty input was considered in the content revision process. The course was also revised from a static web-based course to a multimodal course that would address the diverse student population with regard to generation, culture, and learning preferences.

Multimodality and Student Learning

It is commonly accepted that people learn in different ways (Birchman & Sadowski, 2007; Gardner, 1993, 1999; Quay, Pastelis, McLaughlin, & Cain, 2006). Visual stimulation is important for some but not for others: some students thrive in a highly active classroom setting, while others learn just as well in less active situations. This is documented in the literature on learning styles, personality types, and cognitive science. For example, Carl Jung's work on personality types applies to both traditional and online learning environments. While extroverts prefer highly collaborative learning experiences, introverts prefer less interaction. Howard Garner's theory of multiple intelligences posits that multiple modalities be used to allow learners to engage with the material in the way which is most efficacious for them (Gardner, 1993, 1999).

The abundance of literature on information delivery and learning modalities is somewhat contradictory. For example, some support the notion that multimedia enhances learning and that students experience better performance with both images and text than with just text (e.g., Clark & Mayer, 2008; Kools, van de Wiel, Ruiter, & Kok, 2006; Mayer, 2001). Park and Lim (2007, 2004) found that learners who were given illustrations felt more interest than learners who viewed only text, even though there was no impact on achievement. Some, however, question the impact of graphical presentation on learning (Reimann, 1999; Rogers 1999). Some studies have revealed that people learn from multimedia learning objects better when words are spoken rather than printed as text (Clark & Mayer, 2008; Mayer, 2006; Moreno & Mayer, 1999). Some students have indicated that they prefer traditional face-to-face lectures, which can be more dynamic than those presented in a static Web format (Bruce et al., 2005) and offer the benefit of social interaction between students and instructors (Johnson, Dasgupta, Zhang, & Evans, 2009). The variance in these studies supports the idea of flexibility in course delivery for students.

Generational Differences

Multimodality also served to address generational differences in the student body, which was one of the variables considered in the course redesign process. It is commonly understood that adult students learn differently from traditional college aged students (Kenner & Weinerman, 2011; Milheim, 2005). Furthermore, "The

learning styles, attitudes, and approaches of high school students differ from those of eighteen- to twenty-two year old college students. The styles, attitudes, and approaches of adult learners differ yet again" (Oblinger, 2003, p. 37). Some generational differences focus on familiarity and comfort with technology. For many young students, taking an online course is not a novel experience. These students are usually comfortable with the technology as well as a student-centered learning environment. For older students, the technology and the teaching strategies are not as familiar; these students tend to resist technology more than their younger counterparts. While this is still the subject of some debate (Bennett, Maton, & Kervin, 2008; Beetham, McGill, & Littlejohn, 2009), it generally typifies our student population at WSU. Stapleton et al. (2007) found several significant differences in younger and older students with regard to their use of online systems. First, students from the millennial generation (born between 1983 and 1991, according to Oblinger and Oblinger (2005), were more comfortable interacting with others online through threaded discussions and other interactive course components; however, older students were more comfortable initiating communication with the instructor. In addition, they found that younger students had a harder time than older students with regard to planning an online schedule and sticking to it. Notwithstanding these differences, this study found that younger and older students are fairly homogeneous with regard to their overall perceptions about online learning. Despite common stereotypes to the contrary, they found "no significant difference between Millennials and other generations regarding perceived satisfaction, perceived learning, and motivation toward online learning systems. In other words, Millennials and other generations believe learning in online courses is not solely a matter of technological factors" (Oblinger & Oblinger, 2005, p. 107). Calvin and Freeburg (2010) found that though there was no relationship between adult learners' perceived levels of competency with technology, they struggled with time management in online courses, and requested technical training. The challenge in developing an online course that caters to a large population of all generations is to be aware of these differences, select course activities that address the needs and preferences of students of all generations, and provide flexibility and variety in how they access the course material and in how we assess student learning.

Cultural Differences

Yet another variable considered in the design process was how to most effectively engage a diverse audience. Minjuan's (2007) research focuses on the cultural aspects of online learning; she posits that instructors should "position themselves as equals to the students, to respond positively to all contributions and to avoid censoring free speech" (p. 308). She notes that online courses should "provide both asynchronous and synchronous tools and allow students to choose the ones with which they are most comfortable to encourage more candid and open communication" (p. 308). Her study of students from the United States, South Korea, and China found that Americans felt the most comfortable asking instructors for help, while Koreans felt the least comfortable doing so. However, Chinese students were the most comfortable approaching their peers for help in

completing individual assignments and teamwork, while Korean students were the least comfortable. She suggests that instructors of Korean and Chinese students build teamwork into the curriculum and post guidelines for what constitutes successful teamwork. McAnany (2009) notes that "making [instruction] more culturally sensitive tends to create a better learning environment for all students" and that "giving students more choices (compatible with their cultural style) about how they will learn leads to educational equity and excellence" (p. 3). Designing instruction without taking cultural considerations into account may compromise learning, as "those of other cultures may have non-traditional and specific ways of responding to learning according to their own traditional and cultural understanding" (Bunt, 2006, p. 7). These examples illustrate the need to understand cultural differences in how students perceive content, technology, and communication, and to be responsive of these needs. Once again, multimodality is one means of presenting content and activities that learners can best utilize and benefit from.

Teaching to a culturally diverse audience is something that needs to be addressed in either online or face-to-face teaching. Morgan (2010, p. 117) notes that "requiring all students to follow one style of teaching can inadvertently favor the students who are most comfortable with the teacher's style of teaching" and advocates the use of "as many modes as possible" (p. 118) as an effective strategy for teaching a diverse audience.

The variance in the literature on information delivery and learning modalities, and the fact that learners possess different personalities and learning preferences and are very diverse both generationally and culturally, supports the idea of flexibility and multimodality in course delivery for students. The term multimodal in this paper refers to both auditory and visual information, and includes text, graphics, audio, and video.

Flexibility for Instructors

Faculty's perspective is also an important issue to consider in the redesign of a course, particularly a course such as this that is multi-sectional, yet standardized, and designed to be taught in multiple formats. Not all faculty are proponents of online instruction, though many have developed the technical expertise necessary to do it when required; this is also the case at WSU. Faculty have begun teaching online courses for a variety of reasons, such as convenience for their students, and because of the proliferation of online programs in higher education. Some researchers (Graham & Robinson, 2007; Vignare, 2007; Kaleta, Skibba, & Joosten, 2007) have noted that faculty use blended instruction, which combines online with face-to-face instruction, because they view it as helpful to their teaching. This provides them a way to transition more slowly to online teaching, allowing them to use the online environment to deliver course content while still having a personal connection with their students.

Windfield, Mealy, and Scheibel (1998) assert that teachers' personalities be built into the course, and that "[projecting a 'human face' personalizes] the technologically mediated course content" (p. 446). Interaction between students and teachers greatly influences learning success in an online environment; this interaction plays out in a variety of situations, including how instructors present course content, how they communicate with and mentor their students, and how they oversee and manage learning activities. Though teachers tend to have a preferred style that they are most comfortable with (Vaughan & Baker, 2008), they actually possess a number of styles in their repertoire that are used in different situations (Grasha & Yangarber-Hicks, 2000). Different teaching styles have specific advantages and disadvantages to particular learners and in particular situations, and ideally, instructors would be adaptable to a number of styles "where they can appeal to a greater variety of learners and their learning styles" (Vaughan & Baker, 2008, p. 240).

Redesigning for Flexibility for Students and Instructors

To provide maximum flexibility for students in how they accessed course materials and instructors in how they taught the course, course delivery, scheduling, modality, style, student locus of control, assessment, and content focus were addressed. Because of the diversity of the students taking the course and the diversity of instructors and adjuncts teaching the course, a course "template" was created in the course management system (CMS) and made available to each instructor. Instructors could pick and choose items that they wished to include in their own course, or could copy the template and use it in its entirety. Included in the template were the most up to date versions of the online textbook and video lectures, a large assortment of assignments and assessments, and supplementary readings and activities.

Course delivery.

Course content for all sections of LIBS1704 is housed in two places. It is available on the open Internet and also within the university's CMS. This allows students who may not wish to take the course but wish to review the concepts to test out of the course via examination to do so. It also allows faculty outside the library to use the course modules as learning objects in their own courses, if they choose to do so. Finally, it allows students who are currently enrolled in the course to access the course material in several places; if the CMS is down for any reason, students and instructors can still retrieve the material from the course website, and communication can be conducted outside the CMS. One student who used both the online textbook and the video lectures commented that he "appreciated the fact that [he] was able to utilize a resource like that without having to pay extra money for it" and that he "used the text as a reference guide" [after viewing the lecture]. Both the text and the video lectures are accessible from any computer with Internet access; neither is operating system specific.

Scheduling.

To better accommodate student schedules and faculty teaching preferences, the course is offered both online and in a hybrid format. In addition, it is offered in both intensive 8-week sessions or over the full 15-week semester. Faculty have repeatedly expressed their appreciation for the flexibility this allows, both for their students and themselves. Several strongly prefer the 8-week block, indicating that "it helps with burnout" or that they "have a hard time dragging this class out for a whole semester… it's easier to teach in 8-week blocks because you're meeting more than a single hour each week. That gives students more exposure in that shorter amount of time, and allows me to teach two sections in the time I normally teach only one." Some still prefer to teach larger numbers in one section and stretch the course out over 15 weeks.

Multimodality.

Learning theorists have promoted the use of multiple modes of instruction to appeal to the varied learning styles and preferences of students. However, many online courses are mostly text-based (Hughes, 2009; Zapalska & Brozik, 2006), and students' learning needs must be met through some combination of email or other instructor notes, web pages or other online readings, and textbook (Hughes, 2009). For this reason, the revised course utilizes a variety of methods to deliver content and to facilitate different learning preferences and abilities. The online version of the course readings is available in PDF and is freely available on the course website and in the course CMS. Most instructors provide links to the text version broken down into specific modules for quicker download time and easier division within their course setup, and some also provide a link to the text in its entirety for those who wish to print the entire textbook in one sitting. A print copy of the readings is available to students through the library's reserve bookroom, and a series of multimedia lectures is available on the course website and in the CMS.

After beta testing both multimedia lecture and text formats of the course, we surveyed 210 students in seven sections of the course about their preferences for accessing the material. Because it is labor-intensive to have multiple modes of delivery, we wanted to be sure that it was worth the time and effort to maintain both text and video. If students overwhelmingly preferred one or the other, then we could justify only maintaining one means of delivery. Students were invited to submit an anonymous survey in Google Docs about which methods they used to access the course, why they chose to use those methods, and to solicit any comments or suggestions for improving the course. These surveys took place from Spring semester of 2010 to Fall semester of 2012, and the themes that arose from qualitative analysis of these comments were used as a basis for changes to be made to the course. These are discussed below.

Out of the 210 students surveyed, 159 responded for a response rate of 76%. The results indicated that only nine students (6%) chose to exclusively watch and listen to the video lectures, 46 students (29%) chose a combination of the video lectures and the reading material, and 104 students (65%) chose to exclusively

read the course materials. Looking at those who chose to watch the video lectures, at least in part, illustrates what the students preferred in total. In this case, 55 students (35%) chose either the video lectures exclusively, or some combination of video lectures and reading materials, compared to the 65% choosing only to read the course materials. These results may have been skewed slightly, as the first section of the course that was surveyed was a hybrid section, and the instructor did not tell students that there was a video option; so all students noted that they had chosen to exclusively read the course materials. A few of the comments indicated that they would have viewed the video lectures if they had known they were available. In removing these students from the survey, the results were slightly different. With a total of 141 students, 86 (61%) only read the text, 46 (33%) chose some combination of reading and watching the videos, and 9 (6%) chose only to watch the videos. In this case, 39% of students chose to watch the video portion at some point. We felt that this warranted us to maintain both modalities.

Comments from students about why they chose to read or watch provided insight into how we could improve course delivery. Overall, students were definitive about their preferences for accessing the materials, as seen in the following comments:

- "I learn both ways; through reading and listening. It helps to cement the information for me to have both options."
- "I find it easier for me to read the lectures myself. I can understand it better when I do it myself rather then listening. My mind wanders when I listen to people talking rather then focusing on what I should be focusing on."
- "I am a better audio learner. I would use the text to go back and review the information covered in the audio."
- "I like to have the audio lecture, so I feel like I have 'gone to class'."
- "I feel like learning with pictures, audio and text work well, the combination helps me to understand, memorize and master."
- "its always good to read the textbook but for some people such as my self you get a easier aspect of learning from listening to another individual talk about the specific activity"
- "When completing online courses, it is nice to actually have a Teacher or Professor teach the material and explain it. I have found it hard sometimes to "self teach" the course. I understand this is the nature of online courses, but it is a welcome change."

Others chose to access course material in a manner that complimented their particular situations. Many of these comments related to students being able to access the course while doing other things, such as working:

- "I like that there is a voice telling us about the subject. It makes it easy to eat or do other things while listening."
- "I love being able to listen to the video lectures while I'm at work instead of having to read a textbook."
- "My computer is old and slow, it was easier to open up text than audio lectures."
- "I am able to print it out and refer to it and highlight it and use it where I work."
- "I put the online textbook on my e-reader and was then able to do my reading during down time at work."
- "I tend to do better reading then just watching the audio lectures. I get too distracted with my kids around and the other things that go on at home. But I can lock myself into reading something fairly well even if my kids are running wild."

These comments reinforced the idea that we need to maintain both text and video formats, and that we need to consider offering them in a format that can be easily viewed on devices other than just computers, such as e-readers and mobile devices.

Style.

Hughes (2009) advocates incorporating a few "personal touches" into online courses to battle the feelings of physical separation, alienation, and isolation felt by some in the online environment. In an informal survey of the initial beta version, we asked 20 students how they liked the course overall. Four students mentioned their dislike of the formal style we chose to present the material. Some comments were that the course was "not very personal," "too dry," and that "some of the experts were difficult to listen to."

Within the group of faculty responsible for course redesign as well as the faculty teaching the course, this issue was somewhat contentious. The group was equally divided about whether to keep the text written in a more formal academic style, or to use more informal and colloquial language. The group queried a few students and a technical writer, and all preferred informal over formal. Some research has shown that people learn from multimedia learning objects better when the material is presented in a casual/conversational style rather than a formal/academic style (Clark & Mayer, 2008; Mayer, 2006; Mayer et al., 2004; Moreno & Mayer, 2000). According to Mayer (2006), "When learners view the computer as a social partner, they are more likely to try to understand what the computer is saying to them, thereby engaging in the deeper cognitive processes of organizing and integrating" (pp. 382-383). After this feedback was evaluated, an effort was made to revise the text and video lectures to incorporate a more informal/conversational style. The use of third person was limited and the use of first person was preferred.

Student locus of control.
Other comments about the initial version of the video lectures dealt with students' ability to control the material. In this version, the lectures did not allow students to pause, fast forward, or rewind. They were forced to listen to each slide in full before given the option to more forward. While the intent was to not allow students to fast forward through the lectures and force them to listen to each slide, it was very frustrating for them, as seen in these comments:

- "Navigation is difficult. No cue's to forward or reverse. Need buttons to direct audience."
- "[Would like to see] replay button, fast forward…"
- "Slides go too fast and the only way you can go back to a slide is if you start the presentation over."
- "During the modules while it's playing you can't pause it or go back to something once it's done. You kind of just have to start all over again…"
- "I can't pause the play back on the lessons."
- "Have to listen/watch everything if trying to go review a specific topic or subject."
- "[The videos] need to be able to be fast forwarded or something. It takes all day to download and then forever to sit through"

Online courses offer various means of navigation, and even if courses are presented in sequential or hierarchical fashion, students should be able to move through the course topics in random order if they choose (Zapalska & Brozik, 2006). The video lectures were redesigned to allow students to pause, stop, fast forward, or rewind the material. In addition, lessons were broken up into shorter segments to lessen the download time, and provided in multiple formats to better accommodate multiple operating systems and different media players.

Assessment.
The Educational Testing Service (2012) notes that "no single form of assessment works well in all situations and for all purposes" (p. 4) and provides a list of reasons for using a variety of assessments. These include that "each type of assessment has its own strengths and weaknesses" and that

> Some students will perform better on one type of assessment than another. For example, some students will excel in a performance situation. Others are strongest when responding to multiple-choice questions. Similarly, what teachers can learn from an oral presentation about how students communicate may be very different from what they can find out when asking students to write an essay. (p. 4)

Research has also shown that students have preferences with regard to type of assignments given. For example, Butler and Pinto-Zipp (2006) noted their students' "strong predisposition for individual work such as assignments and reading" (p. 213). In the previous version of the course, there was a multiple-choice quiz and an assignment for each module, and all instructors used the same individual assignments, modifying them slightly if desired. The new course template offers many different types and styles of assignments and exercises to assess the concepts taught in the modules. Both individual and group assignment options are offered, rather than just individual assignments. Student assessment is also varied, and includes online multiple choice and short answer or essay quizzes, short-answer or essay assignments, reflective assignments, and authentic task assignments. Instructors also have the option to incorporate outside readings on various topics, synchronous chat, asynchronous threaded discussions, textual tutorials, and online tutorials for hands-on practice.

Both students and instructors appreciate the variety of assessment options. Some have a preference for more reflective assignments and discussions, while others prefer quizzing and exams. Several instructors noted that they will use one version of an assignment one semester, and use another version the next semester, both to "prevent boredom" and "to address student cheating- if I give a final exam one semester and require a final project or annotated bibliography another semester, friends who take the course in subsequent semesters are less likely to share work." Multiple versions of all assignments are available within the CMS and are available in several file formats, so students can access them using various versions of software applications, such as Office 2003 or Office 2007. Instructors have also expressed their preferences for multiple versions of quizzes and exams specifically to address student cheating: if a final exam or quiz is assigned, multiple versions may be given or questions may be randomly generated from test banks that are included in the course template. That way, students enrolled in the same section of the course are getting different assessments. One instructor gives her students a choice of summative assignments; her students have indicated that they like this because some are uncomfortable taking "tests," some prefer more objective assessments over self reflection, and creative types enjoy demonstrating their knowledge through artistic expression.

Because students and instructors prefer and use different operating systems, many of the assignments have been created in a variety of file formats so they may be completed and submitted in both MacOS and PC. Even within the same operating system, some instructors strongly prefer the use of specific file types they are more comfortable and familiar with; one instructor only accepts MSWord documents with .rtf extensions. Another instructor gives her students the choice of using MSOffice or OpenOffice, iWork, or Adobe files, and provides assignments in all of these file formats.

Probably the most common positive comment made by instructors is their appreciation of the "sharing aspect" of housing all of the assessments in the CMS.

That way, all instructors can benefit from each other's well-designed assignments and share effective teaching strategies with one another.

Content focus.
As mentioned previously, the course covers a small but broadly defined list of core outcomes, and allows flexibility in the way each instructor assessed these outcomes. For instructors who wish to include concepts that fall outside the core outcomes list in their courses, a Supplementary Materials section is included with the online textbook that includes additional include teaching materials for this purpose. While the online text and video lectures undergo review with minor changes from semester to semester, the Supplementary Materials section changes dramatically and grows quite rapidly. For example, though the concept of controlled vocabulary is no longer included in the course outcomes list, there are two faculty who cover that concept in their courses and a supplementary guide was created for that purpose. The online text and lectures are divided into modules, and multiple lessons are included in those modules. Any instructor who wishes to exclude a specific concept may elect to skip that in their section of the course, and any instructor who wishes to discuss an additional concept may elect to create a section in the Supplementary portion of the course for that purpose.

The Instructors

This course is unique in that many instructors and adjuncts teach the same course each semester, and content has always been standardized. There are eight full time faculty and nine adjuncts that teach this course. Interviews were conducted during Fall of 2011 and Spring of 2012 with faculty and adjuncts to get a sense of how they were using the course. After comments were analyzed, instructors were grouped into three main categories, labeled here as the Newbies, the Veterans, and the Adaptive groups.

The Newbies.
The "Newbies" were brand new adjunct instructors who had never taught either online or in the classroom before. These individuals were all staff members, and three of them had recently received their Master's of Library Science degrees. Before teaching the course themselves, all of these individuals served as teaching assistants for faculty in the veteran and/or adaptive groups. Because they were new to teaching, all of these individuals initially chose to either use the template as is, or simply copy the course they had observed as a teaching assistant. All of these individuals were comfortable with technology, however, and after only one semester, one individual had chosen to make major modifications to the course, add new assignments to the template, and even changed the structure of the course. Others were comfortable in making minor modifications to the assignments, and had expressed an interest in making significant modifications in the future. All three that were interviewed were comfortable using a variety of file formats and applications, both in PC or Mac, though because they had PCs in their offices, preferred students use MSOffice, Adobe PDF, or Open Office to submit assignments.

The Veterans.
The "Veteran" group was comprised of senior faculty who had been teaching for many years, but were not as experienced or comfortable with technology. None of them were familiar with the Mac operating system, and all required student work to be completed and submitted in MSWord with either .rtf, .doc, or. docx file extensions. These individuals tended to gear their courses and assignments to the "tried and true." One faculty member admitted to being "very slow to change" and "not very tech savvy," and put much effort into continual revision of existing assignments in order to "continue to make things clearer for students." The difficulties this group had were not with the course itself, but with the CMS. One veteran faculty member who holds dynamic class discussions about various topics did not have the same success online because of the intricacies of using threaded discussions in the CMS. Another faculty member did not wish to learn how to use this tool, so does not include threaded discussions in his online section at all; rather, this teacher asks a discussion-type question and has students submit their responses in a Word document. After speaking with these individuals about their experiences over several semesters, it was clear that technology sometimes got in the way, rather than was a useful tool that is behind the scenes or in the background.

The Adaptive group.
The "Adaptive" group were younger faculty with at least five years of teaching experience who were fairly tech savvy and had a desire to experiment with their courses. These individuals used the full range of options included in the course template and many of the features available to them in the CMS, such as selective release, quizzing, threaded discussions, synchronous chat, and group spaces. As stated previously, several of these instructors noted that they vary the assignments from semester to semester, both to "prevent boredom" and "to address student cheating." Two of them tried both individual and group versions of assignments, incorporating peer review into the process. These instructors also varied student control over some of the coursework. For example, some semesters these instructors allowed students free reign to choose a topic to work with for the semester, while other semesters they provided a brief list of scenarios students could choose from or even a list of specific questions students had to pursue. One instructor offered students their choice of final assessment for two semesters.

Future Plans

While the course has already undergone several revisions noted above, the redesign process is still underway. Based on feedback from students and instructors, we will continue to maintain multiple modes of course delivery. In addition, we are working on offering course materials in a format that can be easily viewed on devices other than just computers, such as e-readers and mobile devices, and in a manner that will accommodate older and slower computers. In order for the course to be used to its maximum potential, instructors must first become more familiar with and more comfortable using the university's course management system. While the Newbies and the Adaptive groups have already

begun to modify course materials and add to the template, the Veterans are still struggling with the technology. While instructors that were interviewed were satisfied with the direction the course is going and with the options available, the technology is still a hindrance for some.

Students clearly appreciate having a choice in how they access the course materials. Based on their comments, we will continue to offer course materials in print, online, and via video lecture. The lectures will continue to be polished and the newer versions will be posted to YouTube via a channel established for this purpose. This method of distribution will eliminate the need for the university to host the project, allow cross-platform use, and permit users with slower Internet connections to view the lectures at lower video quality. One student requested that the lectures be available in an 'off-line format'; these may be burned to DVD and available for checkout with the print copy of the text for those who wish to view them without being connected to the Internet. Based on two student comments, we will also explore the ability for students to view the text and lectures through mobile devices. The next version of the online textbook will include more examples of concepts and an index, allowing students to more easily find specific information.

Additional assignment and assessment options will be added to the course template, and ideally, instructors will continue to share best practices and experiences with one another as we continue to improve the course.

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