Blended Learning Environments in Higher Education: A Case Study of How Professors Make it Happen

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Blended learning has become a prominent method of course content delivery in higher education. Researchers have found that motivation, communication, and course design are three factors that contribute to the overall success of blended learning courses and students' satisfaction with blended learning courses. This qualitative study also found that course preparation emerged through the participant interviews as a contributing factor. What remains unclear, however, is whether faculty take these factors into consideration when preparing to teach a blended learning course and, if so, how. In this study, a collective case study of five faculty of blended learning courses was conducted to investigate how they prepared to teach a blended learning course and how they considered course preparation, course design, communication, and motivation. The findings suggest that the faculty did consider these four factors to varying degrees.

Over the past decade, technology has been utilized more frequently in education. Computers, digital cameras, SmartBoards, and even iPods have made their way into classrooms. In addition, technology has allowed for higher education institutions to offer blended and fully online courses. Blended learning is becoming an increasingly popular method of content delivery in higher education, especially at the graduate level because of the scheduling flexibility and the ability to meet the needs of a greater number of students (Ho, Lu, & Thurmaier, 2006). For the purposes of this study, blended courses are defined as those that combine in-class and online instruction with 30% to 70% online content. This percentage may vary by universities. The blended model includes both face-to-face (physical) and asynchronous (virtual) instruction (Holenko & Hoić-Božić, 2008; Precel, Eshet-Alkalai, & Alberton, 2009; Slevin, 2008). Blended courses have the potential to incorporate the strengths of synchronous and asynchronous learning (Ho et al., 2006; Vaughan, 2007).

Advantages and Challenges to Blended Learning Courses

An examination of the literature on blended learning revealed advantages, challenges, and other considerations for students and faculty. First, there are four primary advantages of blended learning as these courses have the potential to incorporate the strengths of synchronous and asynchronous learning (Ho et al., 2006; Vaughan, 2007). These advantages are: greater flexibility of time, meeting different needs and learning styles, time for reflection, and lower dropout rates compared to fully online courses (Ho et al., 2006). For students who work full time and/or have family responsibilities, the flexible design accommodates their busy schedules. Without the flexibility, they may not otherwise be able to pursue their degrees. The blended

model also caters to students who prefer face-to-face interaction in addition to students who prefer online learning. A community of inquiry allows learners to connect and collaborate with their peers and to create "a learning environment that integrates social, cognitive, and teaching elements in a way that will precipitate and sustain critical reflection and discourse" (Garrison & Vaughan, 2008, p. 8). Because students in blended courses generally have two weeks of online work time in between face-to-face meetings, there is ample time for reflection on readings and online contributions by classmates. Additional modes of communication and participation can lead to an increase in student motivation (Ho et al., 2006). Due to these advantages, there are lower dropout rates for blended courses in comparison to fully online courses with no face-to-face meetings.

For faculty, the blended learning model provides a high quality teaching experience, higher quality interaction between faculty and students compared to traditional in-person courses, and a "community of inquiry" through flexible course design (Ho et al., 2006; Vaughan, 2007). The high quality teaching experience comes from the ability of blended courses to provide opportunities for increased interaction between the students and faculty. Some students are more comfortable communicating with their professors in a digital format via e-mail or online discussion posts.

Despite these advantages, potential challenges for students and faculty are also noted in the literature. First, struggles with technology usually occur in the opening weeks of a course. Students need to ensure they have the knowledge and accessibility to resources necessary to be successful with the online components. Second, students may experience a lack of motivation to complete coursework (Vaughan, 2007). The lack of motivation can come from trouble with time management during the weeks the class does not meet in person (Holenko & Hoić-Božić, 2008). Students with insufficient time management skills could quickly fall behind on coursework. Student motivation can be improved by using best practices in course preparation and design, which we will discuss in the results section of this paper. Lastly, students in blended courses may have an unreasonable expectation that meeting less means less work (Vaughan, 2007). Vaughan (2007) explains that "a number of these students do not perceive time spent in lectures as 'work,' but they definitely see time spent online as work, even if it is time they would have spent in-class in a traditional course" (pp. 85-86).

Faculty need to be prepared for the initial time commitment involved in preparing a blended course. Sometimes a complete course redesign is necessary which can require extensive time and resources on the professor's part (Ho et al., 2006). Some professors' teaching identities are linked to lecturing or face-to-face interaction with students, and they may fear losing control in an online environment or of losing their lecturing identity (Eynon, 2008). In the following section we will discuss the blended learning best practices found in the literature.

Best Practices in Blended Learning

Blended course instructors need to identify best practices to engage students and encourage them to be active participants in the course. Faculty have six considerations to take into account when preparing to implement a blended course. First, they should develop online learning environments that provide opportunities for interactive and collaborative learning (Holenko &

Hoić-Božić, 2008; Precel et al., 2009; Slevin, 2008). This environment can be created through online discussions and projects. Second, faculty need to have a strong command of their subject matter and also have the ability to design and present activities in an online format (Archambault, 2008). Third, a common course design recommendation is for faculty to provide both digital and print texts because some students have difficulty reading digital texts. Academic achievement has been proven to be lower when students are provided with only digital text readings (Precel et al., 2009). A fourth consideration is to post video lectures, which can help bridge the gap between faculty and students when not meeting face-to-face. Fifth, assessment needs to be adapted to fit e-learning expectations (Slevin, 2008). As Picciano (2009) states, "Essays and term projects pass back and forth between teacher and student without ever being printed on paper. Oral classroom presentations are giving way to YouTube videos and podcasts" (p. 16). Traditional assessments should be evaluated to see if they meet the needs of the online assignments for the course. If they do not, new assessments will need to be created. Ultimately, faculty should keep students and learning context in mind when developing blended courses.

An additional consideration is related to the idea of creating a community of inquiry (Garrison & Vaughan, 2008). Creating a community of inquiry allows learners to connect and collaborate with their peers and to create "a learning environment that integrates social, cognitive, and teaching elements in a way that will precipitate and sustain critical reflection and discourse" (Garrison & Vaughan, 2008, p. 8). Furthermore, Garrison and Vaughan (2008) believe that blended courses open "the possibility of creating and sustaining a community of inquiry beyond the classroom" (p. 8). A community of inquiry allows learners to confirm, construct, and analyze knowledge, which leads to "deep and meaningful educational experiences" (p. 9). Faculty of blended courses should take these factors into consideration when designing and redesigning courses. If they do not, it is likely the learning experience for the students will not be deep or meaningful.

As evidenced by the review of literature, course design, communication, and motivation are three important factors that affect the success of blended learning courses that are the focus of this study. Course design includes the actual layout of the course. Communication involves student-teacher and student-student interaction in and out of the classroom such as in class discussions, discussion board or blog posts, and email correspondence. Motivation includes extrinsic factors such as teacher encouragement and course organization in addition to intrinsic motivation. This study contributes to the field of online education by exploring how higher education faculty take into account all three factors when developing blended courses.

Purpose of Study and Research Questions

The development and increase in the use of technology has played a major role in the popularity of blended courses. Despite the increase in the number and type of blended learning courses offered, there is limited research on faculty use of best practices when teaching blended courses. Faculty in higher education are being asked to design and implement these types of courses, but they may not consider certain factors that could lead toward quality instruction and learning in a blended environment. We sought to gain an in-depth understanding of how faculty of higher education blended courses consider course design, communication, and motivation when planning and implementing courses. Using a collective case study approach, we sought to answer

the following research question: How do higher education blended learning faculty take into account the factors of course design, communication and motivation when designing their courses?

Methods

Research Design

We used a qualitative, collective case study design to explore how five professors who teach in a blended learning environment take into account course design, communication and motivation when designing their courses. Although the courses had the common characteristic of being taught using blended methods, each professor was considered a case or a unit of analysis (Yin, 2009). Participants were recruited from faculty in a college of education at a large, Midwestern research university. Institutional Review Board exemption was granted in April 2010. Data were collected between May and July 2010.

Case Selection

Because the type of courses taught by faculty in the college is not easily identifiable in any public record, all 91 college of education faculty members were sent a brief e-mail at the end of the spring 2010 semester stating the purpose of the study along with an invitation to participate. A reminder email was sent to all faculty two weeks after the initial invitation. Faculty members were informed that they must teach a blended learning course (between 30 and 70% online) to participate. To ensure that those responding to the survey met this inclusion criterion, the first survey question asked if the professor taught a traditional or web-enhanced (0% - 29% online), blended (30% - 70% online), or fully online (71% - 100% online) course. Respondents who did not teach blended courses were not included in the final sample.

The survey elicited a low response rate, which could be attributed to the timing of the request being at the end of the spring semester prior to the summer recess and the inability to identify blended learning faculty within the college. Seven professors responded to the survey. One respondent taught completely online and another respondent taught less that 30% online and were therefore not asked to participate in the follow-up interviews. The remaining five respondents noted that they taught blended courses.

The five blended learning faculty were asked an additional six close-ended questions to gather demographic information for the purpose of describing our cases and 14 open-ended questions to elicit in-depth responses about their consideration of motivation, communication, and course design (See Appendix A). Finally, they were asked to participate in a follow-up face-to-face interview. The 14 open-ended questions formed the basis for the protocol of the subsequent interviews (See Appendix B). Faculty members were asked questions specifically about the differences, or planned differences, between designing undergraduate and graduate level courses. However, no one identified teaching a blended undergraduate course so the question was excluded from the analysis.

Profiles of the Participants

A brief description of each participant is provided based on information collected from the survey demographic questions and follow-up interview questions. Pseudonyms were used to protect the confidentiality of the participants. Table 1 provides a summary of the participants, their teaching experience and the length of each interview. Professor Adams has been teaching counseling courses in higher education for 17 years. He has taught four different blended courses and usually teaches three per year. Adams taught a blended graduate level guidance course. To him, blended learning meant that "part of the course is completed on-line and part of the course is in-class as usual."

Professor Brand has been teaching education and literacy courses for 19 years. She has taught four different blended courses. The two blended courses are on children's literature and integrating technology into literacy. She defined blended learning as a mix of face-to-face and online meetings that usually alternate throughout the semester. Her goal was "for students to use technology as the tool for learning and communicating in and out of class."

Professor Collins had taught math courses for pre-service teachers for approximately 15 years in higher education. The blended course she taught is a workshop for math educators, which covered probability, statistics, discrete mathematics, and applications of linear algebra. She taught the course with two other professors. Her definition of blended learning differed from that of Professors Adams and Brand in that she stated that it is "a mix of the traditional classroom and distance learning" versus in-class. However, the workshop she taught did incorporate online asynchronous components.

Professor Driscoll has taught in higher education for ten years. She typically teaches one blended course a year. Brand and Driscoll worked together on the children's literature course and shared resources and ideas with each other. Driscoll believed that blended learning is when "part of the course content is taught in face-to-face sessions, and part of the content is taught through online activities."

Professor Evans has taught in higher education for eleven years. She typically teaches one blended course per year. At the graduate level, she has taught three blended courses. The course covered in this study was a graduate Special Education seminar. Evans stated that she was not comfortable with technology, but she recognized that the blended course format would be more beneficial for her students compared a traditional format.

Data Collection

We used a brief introductory survey along with follow-up interviews in order to enhance the depth and richness of the data. The semi-structured, audio-taped interviews were based on the interview protocol (Appendix B) developed from the three themes found in the literature review and the participant survey responses. The interviews provided an in-depth look at how the faculty took course design, communication and motivation into account when creating their blended courses. The length of each interview is noted in Table 1.

Table 1

Summary of the Participants

Professor	Discipline	Years teaching in Higher Education	Number of Blended Courses Taught	Length of Interview (min.)
Adams	Counseling	17	4	41
Brand	Literacy	19	4	40
Collins	Math Education	15	1	51
Driscoll	Literacy	10	1	34
Evans	Special Education	11	3	17

Data Analysis

We indexed the interviews prior to data analysis. We each coded the survey responses and interview transcripts using an *a priori* coding scheme based on the three factors (communication, motivation, and course design) found to be important in the literature on blended courses. Table 2 provides a detailed description of the coding scheme. Throughout the coding process, we both observed that course design was composed of two separate processes, which were re-coded into "Course Preparation" and "Course Design." Course preparation included the professors' intentions for creating a blended course, the planning involved for the course including workshops or other resources used to develop the course, and the revision process for future courses. Course Design discussed the actual layout of the course on the Learning Management System (LMS), which is a software program that can be used to administer course content via the Internet. Upon completion of the coding by each researcher, coding decisions were compared between researchers and all discrepancies were discussed and reconciled before further analyzing the data.

We grouped the codes into themes through a thematic analysis of the interview indices (Miles & Huberman, 1994). Particular attention was paid to the recoding of course preparation and design as well as the intended purpose of components based on the professors' chosen design. We also conducted a thematic analysis of the survey responses to identify common tactics used in designing and teaching blended courses. Data belonging to established themes were compiled in a word-processed document.

Results and Discussion

The factors of course preparation, course design, motivation, and communication are discussed as well as other areas of interest that arose during data analysis. All of the professors in this study used a Learning Management System (LMS) for the online components.

Table 2

Coding Scheme

Theme	Operationalization	Code Descriptions
Course Preparation	Any action taken by the professor to learn about blended models and best practices before creating and while teaching of a blended course.	● Reading books/articles on best practices or blended and online learning models ● Attending workshops/conferences on blended or online learning models ● Consulting with other colleagues who teach blended courses ● Consulting with technical experts on the use of technology
Course Design	Organization and included components of a blended course.	● Organization of the course (online and in-class) ● Descriptions of assignments and assessments ● Description of the use of LMS features such as discussion boards, the dropbox, content, and gradebook ● Specifications for discussion board posting ● Discussion of the other types of technology used in the course ● Manner in which students were grouped for assignments and discussions (online and in-class)
Communication	Student-teacher and student-student interaction in and out of the classroom.	● Use of email correspondence between teacher and students ● Discussion board comments and facilitation by professor ● In-class facilitation of group discussions ● Use of online office hours, tech resources, non-class-related discussion, etc. ● In person office hours ● Use of the news feed in the LMS. ● Use of additional communication modes such as Skype ● Feedback on graded assignments
Motivation	Extrinsic factors such as teacher encouragement and course organization in addition to intrinsic motivation	● Frequency and level of quality of discussion board posts ● Description of course requirements ● Workload ● Amount of in-class and online meeting time ● Level of comfort with technology (teacher and student) ● Quality and frequency of feedback

Preparing Blended Courses

The professors prepared their blended courses in various ways. Only two of the professors sought information on effective online teaching strategies. However, Collins, one of the professors who did not initially seek outside information, eventually gathered resources on best practices and contributed to the literature by publishing an article on her experiences with the math education workshop. The other two professors who did not seek resources made contacts with the tech support personnel in the department or other professors who previously taught blended courses. The professors who took time to investigate online and blended learning strategies prior to implementation of their courses obtained guidance from resources listing specifics on how to effectively integrate certain components such as discussion boards or online quizzing.

Three of the interviewed professors participated in some type of technology training and all of them sought technical support throughout the course design and implementation stages. All three professors raved about the quality of service they received. Once proficient with the technology, many of the blended learning professors became resources within their departments and frequently encouraged their colleagues to incorporate blended components into their own courses. Adams became an LMS "expert" in his department and was frequently approached by faculty in his department for advice on how to use LMS features or other classroom technology. Collins has since written two articles on her experiences with the blended model workshop. Professors Brand and Driscoll have collaborated on designing several blended courses.

The professors discussed how they started with one or two features when first adding technology before developing the fully blended courses. Professors Adams and Brand mentioned that this kept them from feeling overwhelmed and gave them a sense that they were better serving their students through proper gradual integration. All of the professors used technology in addition to the LMS. Adams incorporated Skype with the LMS features, and Brand and Driscoll used many of the embedded LMS features but also sought outside resources such as wikis, blogs and webquests. Collins used SMART Board technology and TI graphing calculators with accompanying software. Evans, despite being less comfortable with the technology, had thorough online modules and discussed adding voice threads to her class in the fall. Evans believed that the blended model was beneficial and noted that if it were not for the sake of improving the class for her students, then she would not have converted the class to a blended model due to her limited technical expertise.

Evans noted that preparing for a blended course requires more discipline and preparation time than a traditional course because one must resolve issues that do not arise in face-to-face classes such as communication issues, interaction with the technology, technophobia, the ability to remind students of assignments in person and the teacher's motivation to stay on top of grading assignments.

Revision of the blended courses was also an important part of preparation for each new semester. Bandura (2001) notes that self-reflection allows agents to check the outcomes with their predictions and to compare the outcomes with those of others in similar situations. This self-reflection is crucial to teaching blended courses that require careful refinement at each stage of

the development, teaching, and revision process. Adams reflected after each course to determine things that did or did not work and made substantive changes each semester. Driscoll noted that there is much more constant revision of course material with a blended or online course compared to a traditional face-to-face class. This can be for several reasons. First, many online courses link to other websites, and the links must be checked often to ensure that they are still operating properly. Additionally, methods of delivering online content are frequently changing as technology develops and therefore classes may be updated to keep up with the new technologies and modes of delivery.

Elements of Course Design

Carman (2005) suggests that blended learning should contain five key ingredients: live events, online content, collaboration, assessments, and reference materials. Each professor presented a slightly different design containing most or all of the key ingredients. Live events, or time spent in class, varied. Adams had a few classes replaced by online video modules but primarily kept weekly meetings with shortened classes to allow students time to complete online modules. Collins taught a workshop consisting of 12 days spread out over the course of the spring and summer sessions. The university was the main instructional site along with four satellite locations in the surrounding area. Professors Brand, Driscoll and Evans chose a course design that met biweekly with "off" week lessons held online. Brand saw the online activities to be an extension of content presented in class. She found that the biweekly meetings allowed students to attend two different classes on alternate weeks so cohort classes could share a time slot. Evans commented that the students responded positively to this model since many are working full time, have long commutes to campus or had other commitments that kept them from attending class each week. The bi-weekly schedule made the course more flexible for these students and gave them the opportunity to learn at their own pace during the online portions of the class while still keeping them on track with regular meetings.

With regard to the online content and reference material available on the LMS, all of the professors used the content feature to post course documents and assignments. Adams used videos provided by the textbook. Professors Brand and Driscoll had the students complete several online and in-class activities. Some of these included: scavenger hunts, webquests, inquiry searches of information, digital graphic organizers, podcasts, and videos. Examples of in-class activities included: mini-lectures, literature circles, whole class demonstrations, small group discussions, jigsaw activities, and student presentations. Evans' modules were usually composed of multiple chapters and included the reading assignments and a PowerPoint on each chapter to focus the students' attention on key points as well as provide supplemental information related to but not included in the chapter. Assignments were also listed in each module.

All of the professors except for Evans used the news, dropbox and grading features similarly but the discussion board was used in various ways. Adams gave each student a week to post an initial statement and then the second week between class meetings was used for responses to other students' posts. Adams also required the students to complete weekly journals that could only be viewed by the student and professor thus allowing for a more confidential dialogue than the discussion boards. Professors Brand and Driscoll followed a model of posting and responding

within the same week. Collins used the discussion board primarily for student-student correspondence on projects and as a place for students to anonymously provide feedback on the course. All of the professors who used the discussion board provided a space for students to ask questions on how to use the course technology.

The five professors grouped students for assignments and discussions. Adams discussed his first experiences of having the whole class discuss a topic online and how it was very overwhelming and difficult to manage. He revised this format several times to reach his current method of rotating student groups for discussion board posts so students received different perspectives and shared with all of their classmates at various times without feeling overwhelmed by having a large online discussion. Professors Brand and Driscoll also created discussion board and project groups but arranged them based the on the grade level that each student teaches. Collins' groups were simply the students at each distance learning location. Evans allowed students to choose their groups for in-class discussion. Pallof and Pratt (2005) note that group work, as discussed by each of the professors, can develop a sense of community in the classroom and can lead to positive learning outcomes and increased student satisfaction.

Adams, Brand, Collins and Driscoll used the news and content features to keep students up to date with course content. Driscoll also used the news feature to post updates, professional development and conference opportunities, and children's literature awards. Each professor did his or her best to keep the information organized but all complained of the linear format provided by the university's LMS. They saw this layout as bulky and preferred an icon and folder based design. Brand attempted to overcome the issue of posting too much content at once by setting items to be time released so there was a continual rotation of content based on the current assignments. Adams attempted to deal with the issue by providing an itemized syllabus detailing each assignment and whether it was due in class or online.

Assessment was another key component of course design. Professors Adams, Brand and Driscoll graded discussion board posts but Collins did not. Evans did not use the discussion board at all because discussions were held in class. Additionally, she did not grade the in-class discussion since the discussions were necessary to complete the other class assignments. All assignments in Adams' class were turned in online while Evans collected all assignments in class. Professors Brand, Collins, and Driscoll collected both online and in-class assignments. The fact that each professor used a different assessment plan shows that there is a wide range of possibilities for collecting assignments within the blended model.

Communicating Creatively and Effectively

Communication was an important component of each of the blended courses reviewed in this study. Because of the manner in which the professors set up the courses, the students were able to build communities through both their online and in-class discussions and activities. Building communities is incredibly important in blended courses because students do not meet face-to-face every week like they do in traditional courses (Garrison & Vaughan, 2008). Most of the professors noted that they liked online discussions because the students had more time to think and process information. The students' responses were generally deeper and more substantive than they would normally produce during in-class discussions. Adams remarked that he felt

students were free to discuss and explore a topic for an extended period of time, which was just not possible in a traditional course. Even though Evans did not use online discussions, she still felt her students were able to participate in meaningful and in-depth conversations with their peers in class. Discussion was an important component of her course, and she felt the reading and preparation her students do outside of class "allows for more thought and sometimes more depth."

Several of the professors also used other various forms of communication with the students. Almost all of the professors used the "news" feature on the LMS to post important and timely information. Also, a trouble-shooting technology space was available for students in most of the courses in this study where either the students or the professor could respond. Adams even had a "coffee talk" section on his page where students could post information outside of the academic topics such as vacation plans or other personal discussions. All of the professors were available to answer questions and communicate with students through email. The importance of communicating in a timely manner with students is consistent with research findings in blended learning (Ho et al., 2006). In addition, a few of the professors spoke of the desire to include other forms of communication to their blended courses in the future. In particular, Brand said that she would like to use blogs, wikis, avatars, and Voki. Evans hoped to add short voice clips to her LMS site as an additional form of communication.

Consideration for Student Motivation

The professors revealed various levels of concern with regard to student motivation. Professors Adams and Brand noted that they included a point system for the online discussions, which ensured that students would participate fully throughout the semester. Posting grades on a daily basis and putting the students into teams helped with motivation in Collins' course. Alternatively, Driscoll responded on her survey that she made sure to choose interesting and high-quality literature for her students to read to ensure that they would be motivated. She also commented on the fact that she crafted prompts for discussions that would "promote deep thinking and analysis." Evans set up her course so students did all of their reading and prep work before coming to class so that they could participate in meaningful discussions when they came together. All of these strategies are consistent with findings in the literature that lead toward maintaining student motivation for learning and engaging in blended learning courses (Ho et al., 2006; Holenko & Hoić-Božić, 2008; Slevin, 2008).

There seemed to be an assumption among the professors in this study that graduate students would already be motivated to participate fully in the blended courses. Adams specifically noted that because the course was graduate level he expected the students to do the reading outside of class. In fact, Adams perceived that students were motivated to do more work in the blended format than they would have completed in a traditional format. Brand found that her students were "both motivated to address content and to participate in online learning given their busy lives and schedules." Rovai, Ponton, Wighting, and Baker (2007) found that graduate students were significantly more motivated in intrinsic motivation than undergraduate students in e-learning courses. Rovai et al. (2007) did not explore why graduate students were more intrinsically motivated in their study, but suggested it may be due to the fact that graduate school is viewed as more optional and that more intrinsically motivated students may choose online

courses over traditional. The results of this study found that motivation did not appear to be a major consideration when planning and implementing blended courses. In fact, Evans said she did not consider student motivation when planning her blended course. Motivation was more like a consequence that came from quality course design and communication.

Implications

Based on the results, it seems clear that in order for faculty to offer blended courses and for the courses to be successful, there needs to be ample opportunities for professional development. Most of the professors who participated in this study went out and searched for resources, attended trainings, and contacted services on campus on their own. In a survey of faculty who taught online, the participants noted how important technical support, technology knowledge, preparation, and clearly defined course design were to the success of their courses (Archambault, 2008). Also, faculty who are already knowledgeable about the technology needed for blended learning can work with their peers to teach them what they need to know. Adams already does this in his department. Once he learned and was successful, his colleagues became interested in learning as well.

Communication is a critical factor in the success of blended learning courses. There are two types of communication that worked for the courses in this study. The first is communication between the professor and the students through news postings, email, and troubleshooting help. The second is the discussion boards for the students. Because students only meet in class half of the time, it is imperative that a good system for communicating is set up in the LMS (Ho et al., 2006; Precel, Eshet-Alkalai, & Alberton, 2009; Smith & Mitry, 2008).

Lastly, it is imperative that faculty have a good plan for course design before they begin implementing the course. Successful strategies of the professors in the study included: searching for articles and books, attending workshops, and working with department and school IT departments. Reading resources about the Technological Pedagogical and Content Knowledge) TPACK model as well as online teaching may be helpful. The TPACK model "involves the understanding of the complexity of relationships among students, teachers, content, technologies, practices, and tools" (Archambault, 2008, p. 5190). Faculty should also be aware of any upcoming training sessions on their campuses or at professional conferences.

Suggestions for Future Research and Concluding Thoughts

This study examined five blended learning professors and their courses. It is unclear whether the experiences of the faculty in our study would differ from those at other institutions. This study could be expanded to other universities and colleges in order to develop a more encompassing view of blended learning in higher education.

The initial study sought to compare undergraduate and graduate level blended courses in addition to the present research. However, none of the professors who volunteered to participate in our study taught undergraduate blended courses. Because of the success of blended courses at the graduate level, Evans felt that undergraduate students should also have the opportunity to take blended courses. The university where this study was conducted has many commuter students

who would most likely enjoy and benefit from the increased use of blended courses, although it is important to note that not all undergraduate students may be mature or motivated enough to be successful with this format (Rovai et al., 2007). Regulations for state certification and required in-class time would also need to be consulted before transitioning undergraduate courses to the blended format.

The current literature does not discuss how the consideration of course preparation, course design, communication and motivation might differ in undergraduate versus graduate blended courses. Faculty might consider these four factors differently for graduate students who have been found to possess more intrinsic motivation for learning than undergraduate students (Bye, Pushkar & Conway, 2008; Roval, Ponton, Wighting & Baker, 2007). Additionally, course content at the undergraduate and graduate level differs, perhaps requiring professors to consider these factors differently for the two levels.

Blended learning is becoming more and more common on campuses across the country. We sought to explore how higher education faculty address course preparation, course design, communication and motivation when teaching blended courses. We found that the faculty interviewed sought resources on best practices and implementing technology. Several of them also worked collaboratively with others in their department to build off each other's expertise. Each faculty member described explicitly considering course preparation, course design and communication while motivation was felt to be the students' responsibility and not that of the professor.

Although technology is changing how we interact personally, professionally and educationally, it is not enough to simply "slap" technology onto what is already being done in traditional courses. Most courses will need to be redesigned to reflect best practices of teaching blended courses. Designing the course with quality activities and communication will positively affect the motivation of the students to engage and learn. Once a blended course is in place, it is important to reflect at the end of each semester on what worked well and what can be improved upon. Looking for new ideas and resources should be something that everyone who teaches blended courses should continue to do.

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Appendix A

Survey Questions

Before we begin, please provide us with some information to help us describe our sample.

1. What is your gender?
2. How many years have you been teaching in higher education?
3. In a typical year, how many blended learning courses do you teach?
4. How many different blended learning course have you taught?
5. The blended course(s) I currently teach is:
    ____Undergraduate
    ____Graduate
    ____Both Undergraduate and Graduate
6. What is the title of the blended course(s) you currently teach?
7. What percentage of the course is held online?

Thank you for completing the first part of the survey. The remaining 14 questions are open-ended and seek to explore how you design and teach your blended learning course(s). Please provide as much detail as possible when answering the following questions.

1. What does the term blended learning mean to you?
2. Describe what blended learning looks like in your course?
3. How do you prepare for a blended learning course? For instance, do you use any resources to inform the development of the course?
4. Do you prepare differently for an undergraduate verses a graduate level blended learning course? If so, how?
5. How do you integrate the online portion of the course with the in-class portion of the course?
6. How do you take student motivation into account when planning the course?
7. Describe how opportunities for discussion in blended courses differ from the traditional (on-site) courses you teach.
8. What types of activities are completed online?
9. What types of activities are completed in-class?
10. How do you communicate with your students in this blended learning course?
11. What is your response policy on student work (assignments and questions)?
12. What are the challenges you face with the blended course or have faced in the past?
13. What will you do differently the next time you offer this blended course?
14. What advice would you give to other faculty members who are thinking about implementing a blended learning course?

Appendix B

Interview Protocol

1. Why did you decide to teach this course as a blended format?
2. What type of support did you receive from your department to teach this course using a blended format?
3. How do you feel about the support, or lack of support, provided?
4. How do you prepare for teaching a blended model course?
5. How is this different from your preparation for a traditional lecture course?
6. How much time upfront do you feel you invest in teaching a blended course? Traditional course?
7. How much time each week during the semester do you feel you invest in teaching a blended course? Traditional course?