

Faculty Experiences with Online Learning: A Mixed Methods Study

Michelle Giles, Rhonda Ritter, Ellen Zimmerman, Bob Kaiser

University of North Texas

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Distance education programs have been growing at a rapid pace over the past decade. The Sloan Consortium found that during Fall 2011, 6.7 million students took at least one online course (Allen & Seaman, 2013). This is an increase of 9.3% which is 570,000 students over the previous year. Differences between these programs and traditional face-to-face programs have sparked many debates in the education community, primarily concerning the perceived quality of online programs versus traditional face-to-face programs. Research indicates that most of the issues regarding online delivery methods and faculty satisfaction stem from factors such as lack of knowledge pertaining to course design, lack of online instructional and course environment training, lack of course support, and time constraints.

An issue facing college level faculty who currently teach online courses is the apprehension as regards continuing with teaching in that environment, due to perceived barriers and lack of motivational factors that may exist. With the increasing enrollment in online education programs, more faculty are being asked, or expected, to enter the online classroom; some for the first time. In spite of this increase research indicates faculty reluctance to move to the online environment (Mills, Yanes & Casebeer, 2009). While the number of online programs and online course offerings continue to grow, only 30.2 % of chief academic officers believe that their faculty accept the value and legitimacy of online education – a rate that is steadily declining (Allen & Seaman, 2013). In order to change faculty perceptions towards online learning, there exists a need for studies that will examine current faculty perceptions as regards online learning and look for legitimacy within online programs for universities in order to be viewed as credible.

According to Yick, Patrick and Cosin (2005) in spite of the growth of online course offerings, many faculty members are still ambivalent about online teaching. Furthermore, they

stated that faculty may have accepted the value and legitimacy of online learning, yet not all have embraced this new technological delivery system. Several studies have indicated that the lack of training and support in the area of online course design was considered a barrier to online teaching (Tallent-Runnels, et al., 2006; Bolliger & Wasilik, 2009). A mixed methods study conducted by Rockwell, Schauer, Fritz, and Marx (1999) suggested that training was one type of support that was requested by faculty members; however, the training that was offered was not convenient and many did not take advantage of it when it was made available, which resulted in faculty citing lack of training as a barrier to their actual participation in teaching online. In a study by McLawhon and Cutright (2012) instructors predicted future dissatisfaction with the online classroom based on perceptions of technical skills, lack of training, personality type, and unfamiliarity. Similarly, the findings of a study conducted by Roby, Ashe, Singh and Clark (2013) demonstrated that instructor perceptions of their experiences in an online environment can be affected and improved when adequate provisions are made available.

While research on faculty experiences with online learning is well documented within higher education, most research that is currently available has studied student experiences with online learning. Although many studies have been done to understand factors that faculty perceive as barriers to online learning (Lloyd, Byrne & McCoy, 2012; Shea, 2007; Yick et al., 2005), there is much less current research on the motivational factors and advantages for teaching online that contribute to faculty retention in the online environment. The current exploratory mixed methods study addresses faculty perceptions of perceived barriers or obstacles to teaching in an online environment, explores possible motivations to overcome these barriers and drafts faculty perceived advantages to teaching online courses over traditional settings. By

identifying these factors, the researchers hope to find solutions not already addressed in current research.

The findings from this study offer implications for university students, faculty and administration alike. The results provide insight to administration on the best candidates for online teaching positions as well as suggestions for online training and support. The findings also offer suggestions to faculty for improving the student experience in regards to quality of instruction.

The purpose of this mixed methods study is to examine the extent to which factors affect faculty perceptions of online learning as experienced by faculty in the Department of Learning Technologies at a public university in a small metropolitan area in Texas. This exploratory design has two phases. The first phase of the study was a quantitative survey given to university level faculty members. The second phase consisted of a qualitative assessment with individual interviews of those who took the survey to gain additional insights and perspectives of the faculty. From this initial exploration, the qualitative findings were used to develop measures that can be administered to a larger population. This exploratory approach brings greater insight into the factors that influence faculty perceptions of online learning. The specific research question addressed through this study was: What factors contribute to faculty experiences with online learning? The following sub-questions were used to establish a baseline understanding of the college faculty's perceptions based on personal experiences within the online learning environment. They represented the quantitative dimension of the study.

- What are the factors that faculty perceive as being barriers to teaching in an online environment?

- What are the advantages that faculty perceive as increasing their motivation to teach in an online environment?
- What are the factors that faculty perceive as being advantages to teaching in an online environment?

Literature Review

With the growth of online education faculty satisfaction for teaching in the online environment has become a key indicator for the success of distance education programs. Many research studies have been done to help figure out what factors contribute to higher levels of faculty satisfaction for teaching online. A majority of the literature indicates that faculty satisfaction is favorable for teaching online courses; however concerns are still prevalent (Yick et al., 2005; Wasilik & Bolliger (2009); Lloyd et al., 2012). The purpose of the literature review is to investigate what is currently known about factors that positively and negatively affect faculty satisfaction for teaching in an online environment and seek to uncover any factors that would have a direct impact on future decisions to teach online.

Barriers to online teaching are well documented as cited by faculty (Tallent-Runnels et al., 2006; Roby et al., 2012). Frequently cited barriers include technological difficulties, lack of presence, increased faculty workload, credibility of the medium, and time commitment (Rockwell et al., 1999). According to a study by Yick et al. (2005) negative reactions directed towards distance education still exist based on the notion that distance education is not credible or equivalent to traditional classroom education. Similarly, findings from a study conducted by Wilson (2001) revealed that faculty perceived online instruction as being inferior to traditional teaching. Past findings were consistent with the current research findings.

Wasilik and Bolliger (2009) conducted a study on faculty satisfaction in an online environment and results indicated a moderately positive level of faculty satisfaction with online teaching. Faculty cited technological difficulties, lack of face-to-face contact, and student involvement as being major frustrations for teaching in the online environment. Similarly, an exploratory factor analysis by Lloyd et al. (2012) on faculty perceived barriers of online education identified interpersonal, institutional, training and technology, and cost/benefit analysis as being barriers to online teaching. These are all consistent with the findings of the current study.

Faculty motivations for teaching online have also been well documented (McLawhon & Cutright, 2012; Meyer, 2012; Mills et al., 2009; Shea, 2007). Studies suggest that key motivational factors include providing innovative instruction and use of new teaching techniques, flexibility, and both personal and professional reasons as motivators. Fredericksen, Pickett, Shea, Pelz and Swan (2012) found that faculty members were motivated to teach online because they were interested in the Internet, and they rated the experience more satisfying than those whose primary motivation was fear of being left behind. Shea (2007) conducted a study with experienced online faculty in thirty-six colleges to determine factors that enable and constrain faculty participation in online teaching and learning environments. The study identified the top motivator as being a more flexible work schedule which was consistent with the current study's findings.

Research revealed that the most common advantages of online teaching pertain to convenience, efficiency, and rewards (Esani, 2010). In Shea's (2007) study the advantages of online education cited by faculty included increased convenience and flexibility for their teaching and students' learning; better access to student populations, enhanced knowledge of

educational technology, and increased opportunities for professional development. Similarly, Patsalides (2011) cited an advantage to teaching online was the ability of faculty to teach to a wider audience of non-traditional students. Additionally, Hiltz, Shea, and Kim (2010) conducted a pilot study using four focus group interviews of faculty experienced in teaching online and results suggested that the leading advantage to teaching online was convenience and being able to reach more students. These findings were consistent with the current research study's findings.

Methods

Research Design

A mixed methods approach is a procedure for collecting, analyzing, and “mixing” or integrating both quantitative and qualitative data at some stage of the research process within a single study (Creswell, 2005). The rationale for mixing both types of data is to gain a better understanding of the research problem (Tashakkori & Teddlie, 2003). Additionally, utilizing mixed methods provides the researcher with multiple perspectives from which to analyze a topic, and represents an effective method for triangulating data (Creswell, 1994; Johnson & Onwuegbuzie, 2004; Tashakkori & Teddlie, 2003). The purpose of this study was to examine the extent to which certain factors affect faculty perceptions of online learning as experienced by faculty that teach online courses. This study used an exploratory mixed methods design, combining both qualitative and quantitative analysis. This study integrated qualitative and quantitative analyses in two phases. The first, quantitative phase consisted of a survey given to university level faculty members containing questions addressing both demographic data and experiences of faculty in the online learning environment. The second, qualitative phase consisted of individual semi-structured interviews. The participants of the semi-structured

interview were selected using maximal variation sampling from those participants in the first phase after they took the survey. The visual model of the procedures for the exploratory mixed methods design of this study is presented in Figure 1.

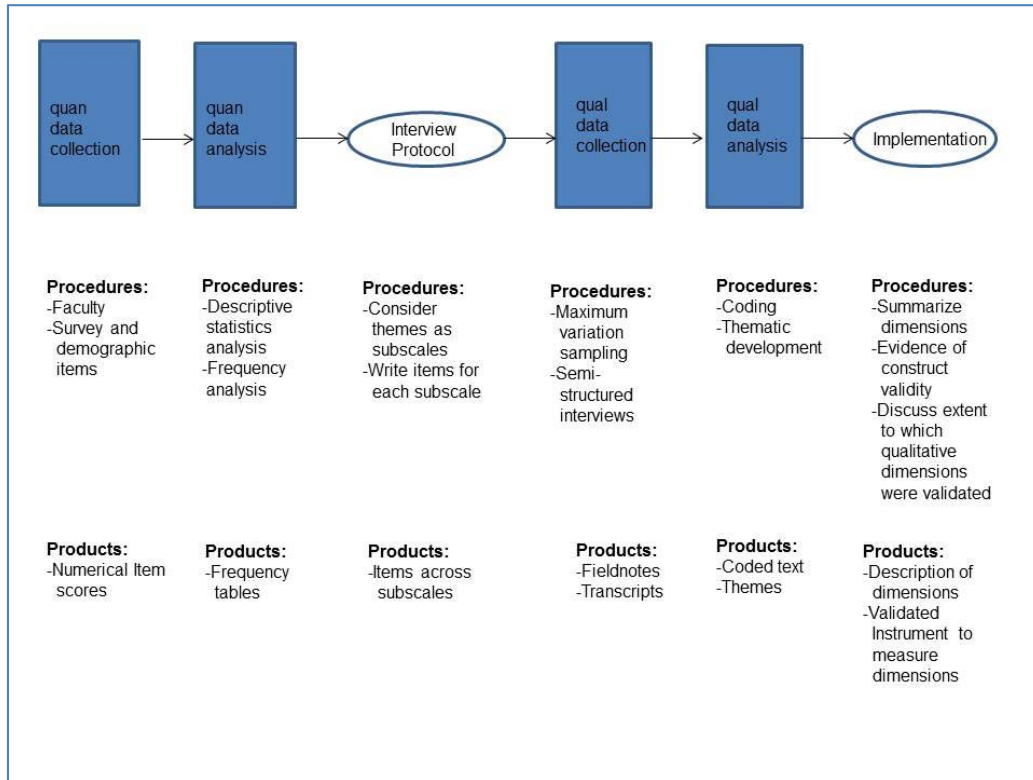


Figure 1. Visual Model for Mixed Methods Procedures (Exploratory Mixed Methods Design)

Participants

The sample for this study consisted of current faculty members teaching in the Department of Learning Technologies at a public university in a small metropolitan area in Texas. Potential participants were invited via an email request sent by the department’s program coordinator, and only faculty who have taught fully online courses were then recruited. This process was achieved by including a question in the survey that asked the participants if they had experience with online teaching. A subset of faculty was invited to participate in semi-structured individual interviews by means of maximal variation sampling. Maximal variation sampling

involves purposively selecting individuals who hold different perspectives on the central phenomenon (Creswell, 2005). This type of sampling allowed the researchers to present multiple perspectives of individuals.

Methods of Data Collection

Survey Instrument. A survey instrument was developed by the researchers and was pilot tested with randomly selected individuals within the same field. The survey consisted of twenty-one questions. Formatting for questions included six open-ended, 11 multiple choice, one drop down, and two Likert-type scales. A Likert-type scale consists of a series of declarative statements (Clason & Dormody, 1994). The Likert-type scales used in this study was formatted using both a 6-point and 7-point scale. The measures for the 6-point Likert-type scale included choices of “Very uncomfortable”, “Uncomfortable”, “Neutral”, “Comfortable”, “Very Comfortable” and “NA”. The measures for the 7-point Likert-type scale included choices of “No training”, “Self Taught”, “1-2 Hours of Training”, “3-5 Hours of Training”, “6-9 Hours of Training”, “10+ Hours of Training”, and “NA”. The first seven questions of the survey asked faculty for demographic information such as gender, race, marital status, and educational level. The fourteen remaining questions of the survey pertained to the type of learning management systems and synchronous tools that are utilized, technology and training comfort levels, teaching philosophy, amount of time spent each week on preparation, assessment, and delivery of content, and perceived barriers, motivators, and advantages to teaching online. At the end of the survey participants were asked to provide their contact information if they were willing to participate in the semi-structured interview.

Semi-Structured Interview Protocol. A semi-structured interview protocol was developed by the researchers for the second phase of the study in order to gain further insight

into participant's personal experiences with the online learning environment. According to Gall, Gall and Borg (2003), in the semi-structured interview, the researcher has a list of questions or fairly specific topics to be covered, often referred to as an interview guide or protocol, but the interviewee has a great deal of leeway in how to reply. Further, questions that are not included in the guide may be asked as they pick up on things said by the interviewers. This approach was used in order to allow participants to contribute as much detailed information as they wanted and allowed the researchers to ask probing questions for follow-up. In order to refine the process of the interview and interview protocol, a field test was conducted on a sample of three faculty members in the field of higher education prior to the beginning of the actual study's interview. A field test is to test in actual situations reflecting intended use (Grayson, 2010). The sample was selected from faculty who have taught fully-online courses and were available to the researchers. The participants involved in the field test were excluded from this study. The results of the field test helped to establish both reliability and validity. Reliability refers to the accuracy and precision of a measurement procedure (Thorndike, 1997). Gay, Mills and Airasian, (2006) defined validity as "The degree to which a test measures what it is supposed to measure and, consequently permits appropriate interpretation of scores" (p. 134). Based on the results of the field test, the interview protocol was revised as needed. The individual interview consisted of seven semi-structured questions and more probing questions arose as a result of the participants' answers. The first three questions addressed factors that faculty perceived as being barriers to and motivators for teaching in an online environment based on personal experiences. The final four questions addressed factors as to the faculty member's satisfaction, advantages of and personal opinion as to teaching in an online environment.

Quantitative Data Collection and Analysis

Quantitative data was collected by means of a self-created survey instrument in order to gather information based on participants experiences with online learning. The online survey instrument was constructed by the researchers in Qualtrics, an online survey implementation tool. A subsequent contact was made by voice communication methods to pursue additional interview questions. Participation was voluntary and the responses were confidential. All surveys were concealed and no one other than the primary investigator and assistant researchers had access to them. The data collected was stored in the HIPPA-compliant, Qualtrics-secure database until deleted by the primary investigator. The survey was active for a total of two weeks due to limited time constraints for completion of the study. In the first week an e-mail message was sent to the faculty via the program coordinators inviting them to participate in the study. A link to the survey was provided in the email. The message outlined the purpose of the study, provided instructions for completing the survey, and informed the potential subjects of their rights regarding participation in the study. After reading the rights of participation, the subjects who agreed to participate completed the survey. Those who did not agree to participate closed their browser window. The subjects were provided with contact information in case they had questions regarding the study and were reminded of confidentiality and of their freedom to discontinue participation at any time. Participants were asked to provide their contact information if they were willing to participate in the semi-structured individual interview. At the end of a one week period, those who had not responded were sent a follow-up e-mail, including the same information as was offered in the initial email communication and reminding recipients that the survey was still active for those who had not yet completed it. At the conclusion of the

second week, the survey was closed to participants. Data was then downloaded from Qualtrics for the purposes of data analysis.

Survey data was manually entered into Statistical Package for Social Sciences (SPSS) and analyzed using descriptive statistics. Responses to open-ended questions were reviewed and coded to identify any common themes.

Qualitative Data Collection and Analysis

Semi-structured individual interviews allowed the researchers to collect qualitative data in order to provide further insight into participant's experiences with online learning. Using maximal variation sampling, a subset of faculty who completed the survey was invited to participate in semi-structured individual interviews within one week of survey completion. All interviews were completed within a two-week time frame. Participants were provided written informed consent to participate. The purpose of the interview was explained to the participants and they were informed that the interviews would be recorded and reminded that their participation was voluntary. Each participant was advised before the interview started that if there were any questions that they preferred not to answer they could decline to respond. The participants could request that the recording be stopped at any time during the interview. The interviews, designed to last between 15 and 30 minutes, took place via phone conference at a time determined by both the researcher and participant with the exception of one participant who was interviewed in person. A conference telephone number and code were provided for each interviewee to call on their agreed upon date and time. Audio of the call was recorded and saved as an .mp3 file. The researchers used an interview protocol consisting of seven initial questions pertaining to experiences encountered with the online learning environment. The researchers took notes of participant responses during the interview. Follow-up questions were not needed.

The recordings were transcribed, coded via note cards and excel spreadsheets, and then analyzed for common themes among participant responses (Creswell, 2007).

The qualitative data collected from the semi-structured individual interviews were analyzed using the constant comparative procedure. The data analysis involved identifying, coding, and categorizing patterns found in the data (Glaser & Strauss, 1967). The transcripts were reviewed by all members of the research team to ensure that the emergent themes were consistently agreed upon by all.

Results

The researchers utilized a mixed methods approach in this study. The purpose of this mixed methods study was to examine the extent to which factors affect faculty perceptions of online learning as experienced by faculty in the Department of Learning Technologies at a public university in a small metropolitan area in Texas. The study focused on the following research questions:

1. What are the factors that faculty perceive as being barriers to teaching in an online environment?
2. What are the advantages that faculty perceive as increasing their motivation to teach in an online environment?
3. What are the factors that faculty perceive as being advantages to teaching in an online environment?

Quantitative Results

Data received from faculty were entered into SPSS software for data analysis. A total of 16 faculty members (n=16) initially took the survey. Of the 16 that were returned, five were

incomplete not continuing beyond the informed consent and therefore deleted giving a total of eleven (n=11) participants in the study (See Appendix B for the survey).

The following demographic information was collected: gender, age, ethnic background, faculty rank, marital status, highest educational level completed, and whether they have ever been a student in an online course.

The participants were self-designated as consisting of five (45%) female and six (55%) male. Faculty ranged in age from 36 to 67 years of age, with three (27.3%) of the eleven faculty being 36, one 39 (9.1%), one 40 (9.1%), one 42 (9.1%), one 45 (9.1%), one 49 (9.1%), one 52 (9.1%), one 62 (9.1%), and one 67 (9.1%). In regards to ethnicity, the participants fell into three groups. Nine (81.8%) identified as white, one (9.1%) identified as Hispanic, and one (9.1%) identified as African American.

Eight (72.7%) faculty have completed a doctorate and three (27.3%) have completed a master's degree. The faculty self-identified ranks included: one (9.1%) full professor, two (18.2) associate professors, one (9.1%) assistant professor, one (9.1%) instructor/lecturer, and six (54.5%) others which identified as either adjunct or teaching fellow. All eleven faculty members responded to the question of the level of students they teach. Nine (82%) responded that they teach bachelor's level courses, eight (73%) responded that they teach master's level courses, and five (45%) responded that they teach doctoral level courses.

Participants were asked to answer the question "Have you ever been a student in an online course?" Ten (90.9%) responded that they had been a student in an online class and one (9.1%) responded no. The general teaching philosophies varied among the faculty. Six (55%) of the faculty identified with a cognitivism/pragmatism teaching philosophy, four (36%) identified with a constructivism/interpretivism teaching philosophy, and one (9%) identified with other

stating that all three (behaviorism/objectivism, cognitivism/pragmatism, and constructivism/interpretivism) were used “alternatively or concurrently” depending on what was being taught.

The levels of experience with teaching online varied among the faculty. Of the eleven faculty respondents, two (18.2%) of the faculty had taught less than one year, one (9.1%) had taught from 1-3 years, three (27.3%) had taught 4-6 years, and five (45.5%) had taught 6 or more years.

Nine (81.8%) faculty responded that they hold synchronous online class meetings in their current online courses while two (18.2%) responded that they do not hold synchronous online class meetings in their current online courses. All eleven faculty members identified which Learning Management System (LMS) they currently use. Of the eleven faculty, six (54.5%) use Moodle, seven (63.6%) use Blackboard, three (27.3%) use Schoology, none (0%) use Desire2Learn, and one (9.1%) uses Canvas. The synchronous tools used in online courses varied among faculty members. Eight (73%) of the faculty use Adobe Connect, two (18%) use Blackboard Collaborate, seven (64%) use Google Docs, seven (64%) use Skype, three (27%) use iChat, one (9%) uses Big Blue Button, none (0%) use Wimba Classroom, one (9%) uses WebEx, two (18%) use GoToMeeting, and two (18%) responded to other identifying that they use Google Hangout. Figure 2 illustrates the number of faculty using each LMS and synchronous tools.

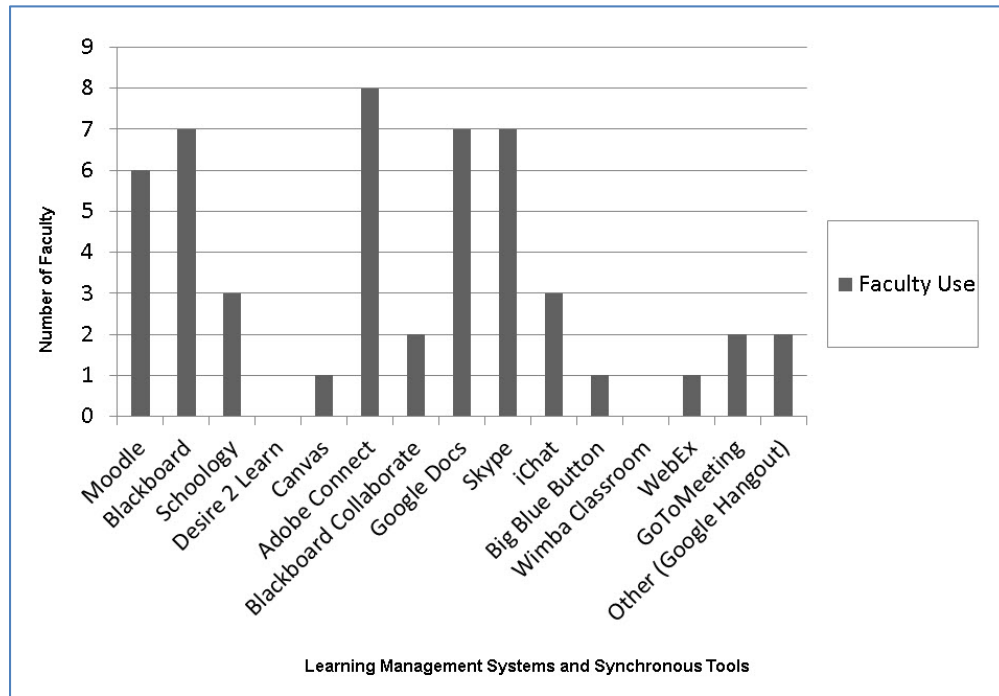


Figure.2 Number of faculty using each LMS and synchronous tools

The comfort level with each tool used varied among the faculty. Three (27%) of the faculty responded “comfortable” and six (55%) responded “very comfortable” with Moodle. One (9%) of the faculty responded “neutral”, six (55%) responded “comfortable” and three (27%) responded “very comfortable” with Blackboard. One (9%) of the faculty responded “neutral”, one (9%) responded “comfortable” and three (27%) responded “very comfortable” with Schoology. One (9%) of the faculty responded “comfortable” with Desire2Learn. One (9%) of the faculty responded “neutral” and one (9%) responded “very comfortable” with Canvas. One (9%) of the faculty responded “neutral”, four (36%) responded “comfortable” and four (36%) responded “very comfortable” with Adobe Connect. One (9%) of the faculty responded “neutral”, two (18%) responded “comfortable” and five (45%) responded “very comfortable” with GoogleDocs. Two (18%) of the faculty responded “neutral”, two (18%) responded “comfortable” and six (55%) responded “very comfortable” with Skype. Three (27%)

of the faculty responded “very comfortable” with iChat. One (9%) of the faculty responded “very comfortable” with Big Blue Button. Two (2%) of the faculty responded “comfortable”, and one (9%) responded “very comfortable” with Wimba Classroom. Four (36%) of the faculty responded “comfortable” with WebEx. Two (18%) of the faculty responded “comfortable” with GoToMeeting. The top three tools that participants mentioned feeling comfortable or very comfortable with were Moodle (55%), Blackboard (55%), and Skype (55%). Figure 3 illustrates the comfort level of faculty for each of the technology tools used.

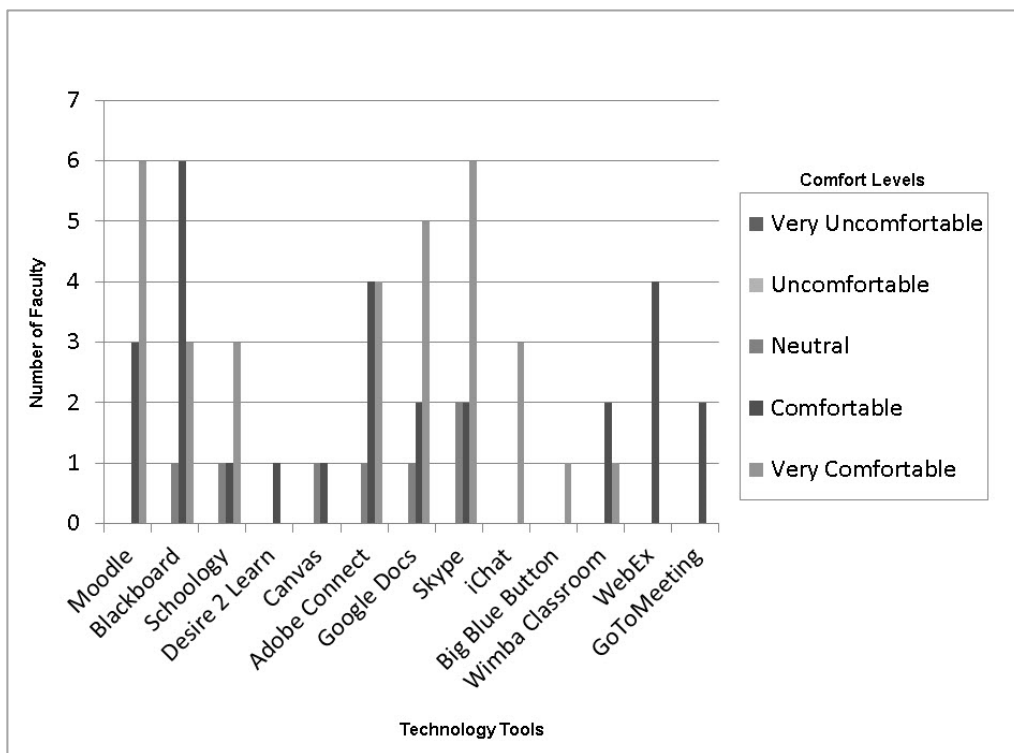


Figure 3. Faculty comfort levels with technology tools used

The level of training with each tool used varied among the faculty. Seven (64%) of the faculty responded that they were “self-taught”, one (9%) responded that they had 3-5 hours of training, and one (9%) responded that they had 10+ hours of training on Moodle. Four (36%) of the faculty responded that they were “self-taught”, one (9%) responded that they had 1-2 hours of training, one (9%) responded that they had 3-5 hours of training, three (27%) responded that

they had 6-9 hours of training, and one (9%) responded that they had 10+ hours of training on Blackboard. Four (36%) of the faculty responded that they were “self-taught” and one (9%) responded that they had 1-2 hours of training on Schoology. Two (18%) of the faculty responded that they had “no training” and one (9%) responded that they were “self-taught” on Desire2Learn. Two (18%) of the faculty responded that they had “no-training”, one (9%) responded that they had 1-2 hours of training, and one (9%) responded that they had 6-9 hours of training on Canvas. Six (55%) of the faculty responded that they were “self-taught” and three (27%) responded that they had 1-2 hours of training on Adobe Connect. Eight (73%) of the faculty responded that they were “self-taught” on Google Docs. Ten (91%) of the faculty responded that they were “self-taught” on Skype. Three (27%) of the faculty responded that they were “self-taught” on iChat. Two (18%) of the faculty responded that they had “no-training” and one (9%) responded that they had 10+ hours of training on Big Blue Button. One (9%) of the faculty responded that they had “no-training”, two (18%) responded that they were “self-taught”, and one (9%) responded that they had 3-5 hours of training on Wimba Classroom. Two (18%) of the faculty responded that they had “no-training” and three (27%) responded that they were “self-taught” on WebEx. Three (27%) of the faculty responded that they had “no-training” and one (9%) responded that were “self-taught” on GoToMeeting. Data suggests that faculty who have been teaching with technology for six or more years are well trained in Moodle, Skype, and Google Docs. However the data also suggests that the majority of training for each of those tools was that of “self-taught”. Figure 4 illustrates the amount of training for Moodle, Google, and Skype by those faculty members with six or more years teaching experience.

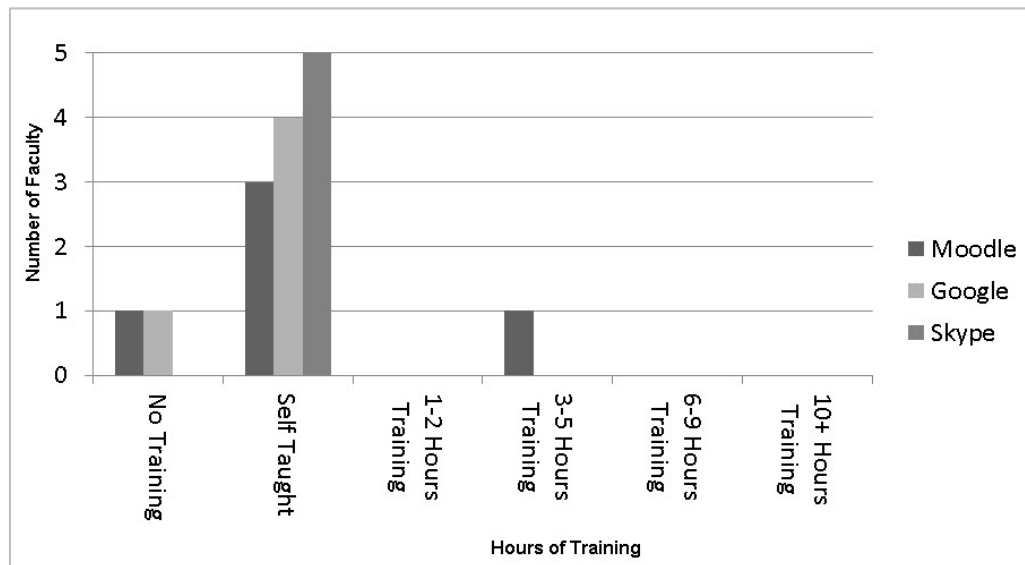


Figure 4. Faculty with 6+ years' experience teaching with technology and hours spent training on Moodle, Google Docs, and Skype

The amount of hours spent on preparation, delivery, and assessment for teaching one online class a week varied among the faculty. Eight (73%) participants spend 3-5 hours, two (18%) spend 1-2 hours, and one (9%) spends less than one hour a week preparing to teach one online class a week.

Five participants (45%) spend 3-5 hours, four (36%) spend 1-2 hours, and two (18%) spend less than one hour a week delivering one online class a week. One participant (9%) spends 6-9 hours, six (55%) spend 3-5 hours, three (27%) spend 1-2 hours, and one (9%) spends less than one hour a week assessing their students in one online class a week. The level of interaction with and among the students in the faculty's online classes varied. While seven (64%) said they have a moderate level of interaction with and among their students, one (9%) said they had a low level of interaction and only three (27%) said they had a high level of interaction.

Qualitative Data Results

The results of the qualitative research include themes related to interviewees' experiences with online teaching in regards to barriers, motivations, and advantages of teaching online courses. The semi-structured individual interviews focused on seven questions. Refer to Appendix A for interview questions that were used by the research analysts.

Member Checking

Our research team is comprised of four research analysts. To ensure credibility and trustworthiness, all three participants interviewed by the research team were given the opportunity to view their transcriptions for accuracy. Of the three participants, two did not respond to the request for review. However, one agreed to read the transcript. Feedback confirmed the interpretation of the respective view.

Interviews

Each research analyst was assigned a participant to interview for a total of four. However, one participant was not available for interview leaving only three participants for the research analysts to interview. Each of the research team members reviewed the three transcribed interviews and produced a listing of key points and similar topics and/or themes. Those summaries were reviewed and themes were identified across the participants. Only those themes that were identified by all of the research members independently were considered common themes in the interview. The following results summarize who the interview participants were and the common themes that were indicated from the review of interview data based on the faculty responses to online teaching questions, conducted by the four research analysts.

Barriers

Barriers to teaching online were generally the same among participants consisting of technological barriers, student resistance, and time consumption (See Table 1 for summary). It should be noted that these findings are consistent with earlier studies of faculty satisfaction with teaching online (Akdemir, 2008; Meyer, 2012; Huang & Hsiao, 2012).

Table 1

Summary of Barriers to Teaching Online

Technological	Student Resistance	Time Consuming
Lack of technology use Compatibility	Don't want to read Adapting to change	Students get lost Getting students comfortable with technology
Instructor bias Distorts communication Communication delays Tools inflexible	Posting assignments Self-motivation	Multitasking while online Answering same questions Mediating misinterpretations

Technological barriers. All of the participants identified aspects of teaching online that they considered as barriers. They felt issues regarding prerequisite knowledge for technology tools used in online courses were a barrier because not all students have the same level of exposure to particular tools. Most suggested that technology in general was perhaps the biggest barrier that they face in the online classroom. For example:

“Sometimes there are technological barriers, when you’re dealing with students or others who are at a distance. Sometimes there are problems with configuration issues that make it very difficult for both parties to be in sync and to work carefully and correctly together. So that’s one of the biggest barriers.”

“[...] technology is technology and there is always going to be challenges with it.”

While they agreed that technology is a barrier they also shared common thoughts on how to overcome those types of barriers. They felt having competent, readily available technical support, tutorials, and FAQ's would be a good way to combat the technical barriers that exist.

Student resistance. Two participants identified student resistance to change as a barrier that must be overcome in order to adapt to the differences in an online medium versus a traditional face-to-face classroom. They felt that students are willing to do what they are comfortable with but not comfortable to do things that they are not familiar with. Two participants stated:

“[...] it is the student's responsibility to read stuff. You know you may have answered all those questions in a document that you posted or in a blog, or in a discussion board that you posted but instead of them looking for it and going out and reading what you have posted their first instinct when they have a question, instead of looking for the answer is to send you an email asking you for the answer. That's a bit of a barrier.”

“Students aren't always open to doing things in different ways and the biggest challenge has been that we've established with distance learning tools the idea that it is anywhere anytime and I don't like that.”

Time consuming. Two participants identified time consumption as a barrier to teaching online. They felt that they answer the same questions over and over due to student's lack of attention to detail which takes up valuable time. The following comments illustrate this point.

“Asynchronous communication tends to be incredibly time consuming for many people.”

“Um, having to, you know to... emailing to ask a question. Me emailing back and the student taking a while to read it and then emailing it again, you know having follow up questions, and so sometimes that can be uh, a bit of a challenge with the delayed part of

communications and then also, um, the time consumption of answering the same question over and over and over and over again in an email. You know, it might be asked a little differently but you know there's still that you know, that having, instead of being able to address the whole class you know having to, um respond independently to, you know the same question in an email I think is a little bit of a barrier.”

Motivations

Motivations for teaching online were both personal and professional but often intertwined. These findings are consistent with earlier studies of faculty satisfaction with teaching online (Meyer, 2012; Bolliger & Wasilik, 2009).

Personal motivations. Personal reasons were given by two participants as motivations to teach online. For example, one faculty member wanted to be able to have the convenience of working from home at any time of day or night. Another faculty member stated:

“Well I’m trying right now to get a project off the ground because I want to have a large impact, I want to reach a large number of people and so the best way to go about trying to have that kind of impact, a large scale impact, is to continue online, so that would be a motivation for me.”

Professional motivations. Professional motivations were identified from several of the participants. Two faculty members were professionally motivated specifically for the reason that that is the direction education is going. Also, they felt that the university’s push towards online education also contributed to their professional motivations. Two participants stated:

“I’m motivated to try to improve online learning experiences simply because this is where we are at. I don’t have to like it but I can at least try to make it better and that’s where my motivation comes from in that instance.”

“Well uh, I’m working on my doctorate in learning technologies and I can see a trend going in the direction of online education, um mostly with post-secondary but while I was teaching in the secondary world I saw that high schools are starting to use online classes, online summer classes for students as well as online um classes, eh, to help students make up classes that they have failed, you know? And that sort of thing, so I see a trend going in that direction and I want to keep up with what’s going on in the educational world, I don’t want to stick my head in the sand and then not be part of you know, the teaching experience that I love so much. So my motivation is that I need to change with the time and keep up with what’s going on in the educational world because it’s going that direction.”

Satisfaction

From faculty’s perspectives, the aspects of teaching online that they found to be most satisfying were collaboration and the ability to share resources. They felt that in-depth dialogue among students and readily available resources contributed to the learning process within this medium. Two faculty member’s comments illustrated these perspectives:

“I like being able to post resources and materials online in a learning management system like Schoology so it becomes a sharing space rather than a delivery space.”

“I think I find it most satisfying when there is genuine collaboration between the students in the online classes and I can see they are sharing rich information and they are having deep discussions and dialogue regarding things that I have put out online, where they actually are questioning each other and they have a point, counterpoint exchange where they are challenging one another. To me, that kind of networking is where learning actually takes place.”

From faculty's perspectives, the aspect of teaching online that they found to be least satisfying was the lack of personal connections. They felt that not having any face-to-face component restricted their ability to teach and that they couldn't truly know if a student understood the concepts being taught. Two faculty members said that:

"[...] if a student like "Mark" who is a really good student, I've known him, I've had him in face to face classes, and he begins to talk online, in my head I can see his mannerisms, I can see his body language as he speaks, if I've never really spent any time with you, never really taught you, I can't picture that look of puzzlement on your face when you might not be understanding something, it really interferes with my ability to teach well."

"[...] you don't get to see their face. You don't get that personal connection to them, my online students. If they pass me in the grocery store, they have no idea they passed me in the grocery store. You know? You don't have any kind of connection outside the classroom."

Advantages to Teaching Online

All three participants identified flexibility of the medium as a main advantage to teaching online. They noted that it was easier to grade student work. They also noted that it was convenient to teach online as you could do this from anywhere at any time. The following comments were made:

"I think one of the advantages would be the flexibility that medium offers."

"All of my assignments are sent in electronically so I don't have all these papers to haul back and forth like you used to have."

“I think an advantage from a teacher’s point of view um, is also a little the same; geographical location. I could be an online teacher for N.Y.U. and still stay here in Texas.”

Preferences for Teaching Online vs. Face-to-Face

The most significant finding in our research indicated that not one of the participants prefer teaching online. Two of the faculty prefer face-to-face over any other mode of instruction and one preferred to teach hybrid courses in order to have some face-to-face component. The three participants stated:

“I absolutely prefer face-to-face.”

“Face-to-face, I would like to do face-to-face.”

“My option would be a hybrid class where you have some face-to-face and some online. That would be what I enjoy the most because then you get a little bit of everything.”

Discussion

The intention of this research was to examine which factors affect faculty perceptions of online learning as experienced by faculty in the Department of Learning Technologies at a public university in a small metropolitan area in Texas. A variety of factors influence faculty members’ motivation and satisfaction with teaching online and those factors play a critical role in faculty supporting the online medium. According to the Sloan Consortium (2002) faculty satisfaction is considered one of the five pillars of quality, so it is imperative that universities strive to ensure that faculty satisfaction with online learning is being met.

Results from both the surveys and interviews suggest that faculty’s perceptions of teaching online are similar. However some differences were evident. This study supports research that suggests that certain motivational factors and perceived advantages with online

instruction is important in developing a faculty's acceptance of the instructional delivery option (Fish & Gill, 2009).

Conclusion

Based on the findings of this study the following conclusions are offered. As indicated in this study, factors that were cited as barriers to teaching online included technological issues, student resistance, and time consumption with the most frequently cited barrier reported being time consumption. The majority of studies completed concerning online education, address the barrier of time consumption, regardless of the focus of the study (Haber & Mills, 2008; Johnson 2008; Meyer 2012). Based on these findings it is concluded that these factors negatively influenced faculty perceptions for online learning and it should be noted that these findings are consistent with earlier studies of faculty satisfaction with teaching online (Akdemir, 2008; Meyer, 2012; Huang & Hsiao, 2012). These results should be of concern to administration as the success of online programs relies on the commitment of the faculty and their willingness to continue the development and delivery of online courses (Betts, 1998).

As part of this study, participants were asked to identify factors that motivated them to teach online. The data analysis revealed that faculty motivations for teaching online were both personal and professional. However these were often times related. The most frequently cited personal motivational factor reported from this study was the convenience of working from home while the most frequently cited professional motivational factor reported was that online teaching was the direction that education is going. Based on these findings it is concluded that these factors positively influenced faculty participation in online learning and these findings are also consistent with prior research.

Participants in this study were asked to identify what they perceived as being advantages to teaching online. The flexibility that the medium offers was the most common advantage cited. The literature revealed that most studies concerning distance education suggest flexibility as the most important advantage to teaching online (Akdemir, 2008; Betts, 1998; Fredericksen et al., 2000). This is consistent with the current study's findings.

As indicated in this study, participants prefer teaching face-to-face rather than online. This was confirmed and supported by the participant responses to the question "If you had the choice/option would you rather teach face-to-face or online courses and why?" All of the participants stated that they taught online because they were required to by the university and were required to use a particular LMS. The participants went on to state that they did not like the requirement of a particular LMS or the online medium due to the lack of face-to-face interaction with students. Based on these findings, it is concluded that faculty who have experience with teaching online are not necessarily proponents for the online medium but that could be due to the lack of face-to-face interaction that they prefer or the requirement to use a particular LMS by administration.

Limitations and Recommendations

There were several limitations that may have affected the study. One of the limitations to the study was a small sample size which may not be a good representation of the actual faculty member population. The current research study was also limited by a sample that represented only one department at the university; specifically, the Department of Learning Technologies. It would be useful to determine if similar experiences are shared by other faculty members throughout other departments and schools within the university. Another limiting factor to the current study was its limitation of the sample to solely those faculty members who were

currently teaching online courses. The study may have yielded different results had the study included all faculty members that have taught online courses, past or present.

Recommendations for future research include the need for additional studies that are comprised of both faculty members who teach solely online courses and those faculty who have taught online courses in the past but that predominately teach face-to-face courses as it could yield richer data comparing and contrasting their perceptions. As student populations continue to change and online course offerings become more credible, distance education programs will likely continue to rise. With that in mind, faculty support for online learning is critical to its success and why it is important for studies such as these to continue.

References

- Allen, I., & Seaman, J. (2013). Changing course: Ten years of tracking online education in the United States. The Sloan Consortium. Babson Survey Research Group. Retrieved February 9, 2013, from <http://www.onlinelearningsurvey.com/reports/changingcourse.pdf>
- Akdemir, O. (2008). Teaching in online courses: Experiences of instructional technology faculty members. *Turkish Online Journal of Distance Education*, 9(2), 97-108.
- Betts, K. S. (1998). An institutional overview: Factors influencing faculty participation in distance education in postsecondary education in the United States: An institutional study. *Online Journal of Distance Learning Administration*, 1(3). Retrieved May, 1, 2013, from <http://www.westga.edu/~distance/Betts13.html>
- Bolliger, D. U., & Wasilik, O. (2009). Factors influencing faculty satisfaction with online teaching and learning in higher education. *Distance Education*, 30(1), 103-116.
- Clason, D. L., & Dormody, T. J. (1994). Analyzing data measured by individual likert-type items. *Journal of Agricultural Education*, 35(4), 31- 35.
- Creswell, J. W. (1994). *Research design: Qualitative and quantitative approaches*. Thousand Oaks, CA: Sage.
- Creswell, J. W. (2005). *Educational research: Planning, conducting, and evaluating quantitative and qualitative approaches to research*, (2nd Ed.), Merrill/Pearson Education, Upper Saddle River, NJ.
- Creswell, J. W. (2007). *Qualitative inquiry & research design: Choosing among five approaches*, (2nd ed.). Thousand Oaks, CA: Sage.
- Esani, M. (2010). Moving from face-to-face to online teaching. *Clinical Laboratory Science*, 23(3), 187.

- Fredericksen, E., Pickett, A., Shea, P., Pelz, W., and Swan, K. (2000). Factors influencing faculty satisfaction with asynchronous teaching and learning in the SUNY learning network. *Journal of Asynchronous Learning Networks*, 4(3), 245-278.
- Fish, W. W., & Gill, P. B. (2009). Perceptions of online instruction. *The Turkish Online Journal of Educational Technology*, 8(1), 53-64.
- Gall, M. D., Gall, J. P., & Borg, W. R. (2003). *Educational research: An introduction* (7th ed.). Boston, MA: A & B Publications.
- Gay, L. R., Mills, G., & Airasian, P. (2006). *Educational research: Competencies for analysis and applications*. (8th ed.). Upper Saddle River, NJ: Pearson Prentice Hall.
- Glaser, B. G., & Strauss, AL. (1967). *The discovery of grounded theory: Strategies for qualitative research*. New York, NY: Aldine De Gruyter.
- Grayson, N. M. (2010). *How do African American young adult females (AAYAF) over 16 years of age make career decisions*. (Doctoral dissertation). Retrieved from Proquest Dissertation and Theses database. (UMI No. 3443392)
- Haber, J., & Mills, M. (2008). Perceptions of barriers concerning effective online teaching and policies: Florida community college faculty. *Community College Journal of Research and Practice*, 32(4-6), 266-283.
- Hiltz, S., Shea, P., & Kim, E. (2010). Using focus groups to study ALN faculty motivation. *Journal of Asynchronous Learning Networks*, 14(1), 21-38.
- Huang, X., & Hsiao, E. (2012). Synchronous and asynchronous communication in an online environment: Faculty experiences and perceptions. *Quarterly Review of Distance Education*, 13(1), 15-30.
- Johnson, A. E. (2008). A nursing faculty's transition to teaching online. *Nursing*

Education Perspectives, 29(1), 17-22.

Johnson R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational Researcher*, 33(3), 14-26.

Lloyd, S. A., Byrne, M. M., McCoy, T. S. (2012). Faculty-perceived barriers of online education. *Journal of Online Learning and Teaching*, 8(1), 1-7.

McLawhon, R., & Cutright, M. (2012). Instructor learning styles as indicators of online faculty satisfaction. *Journal of Educational Technology & Society*, 15(2), 341.

Meyer, K. A. (2012). The influence of online teaching on faculty productivity. *Innovations in Higher Education*, 37, 37-52.

Mills, S. J., Yanes, M. J., & Casebeer, C. M. (2009). Perceptions of distance learning among faculty of a college of education. *Journal of Online Teaching and Learning*, 5(1).

Retrieved from http://jolt.merlot.org/vol5no1/mills_0309.htm

Patsalides, L. (2011, December 8). The benefits of teaching online. Retrieved from <http://www.brighthub.com/education/online-learning/articles/32697.aspx>

Roby, T., Ashe, S., Singh, N., & Clark, D. (2012). Shaping the online experience: How administrators can influence student and instructor perceptions through policy and practice. *Internet and Higher Education*, 17, 29-37.

Rockwell, S. K., Schauer, J., Fritz, S. M., and Marx, D. B. (1999). Incentives and obstacles influencing higher education faculty and administrators to teach via distance. *Online Journal of Distance Learning Administration*, 2 (3).

Available: <http://www.westga.edu/~distance/rockwell24.html>

- Shea, P. (2007). Bridges and barriers to teaching online college courses: A study of experienced online faculty in thirty-six colleges. *The Journal of Asynchronous Learning Networks*, 11(2), 73-128.
- Sloan Consortium. (2002). Quick guide: Pillar reference manual, Needham, MA: Author.
Retrieved from http://www.sloanconsortium.org/publications/books/dprm_sm.pdf
- Tallent-Runnels, M. K., Thomas, J. A., Lan, W. Y., Cooper, S., Adhern, T. C., Shaw, S. M. and Liu, X., (2006). Teaching courses online: A review of the research. *Review of Educational Research*, 76(1), 93-135.
- Tashakkori, A., & Teddlie, C., (Eds.) (2003). *Handbook of mixed methods in social and behavioral research*. Thousand Oaks, CA: Sage.
- Thorndike, R. M. (1997). *Measurement and evaluation in psychology and education* (6th ed.). Upper Saddle River, NJ: Prentice-Hall.
- Wasilik, O. & Bolliger, D. U. (2009). Faculty satisfaction in an online environment: An institutional study. *Internet and Higher Education*, 12(3), 173-178.
- Wilson, C. (2001). Faculty attitudes about distance learning. *Educause Quarterly*, 2, 70-71.
- Yick, A.G., Patrick, P., & Costin, A. (2005). Navigating distance and traditional higher education: Online faculty experiences. *International Review of Research in Open and Distance Learning*, 6(2), 1-18.

Appendix A: Questions Used for Semi-Structured Interview

1. Please describe what aspects of teaching online that you consider as barriers? Please describe up to 3 barriers while teaching in the online environment.
2. How do you overcome those barriers?
3. What have been the main motivations for you to continue to teach online? Please describe up to 3 key motivators for why you choose to continue to teach online.
4. Please describe what aspects of teaching online that you have been most satisfied with?
5. Please describe what aspects of teaching online that you have been least satisfied with?
6. What do you consider to be advantages to teaching online versus face-to-face?
7. If you had the choice/option would you rather teach face-to-face or online courses and why?

Appendix B: Informed Consent Form and Survey Questions

Informed Consent Form

Introduction

This study attempts to collect information about faculty experiences with online teaching.

Due to the increasing demand for online education, it is important to determine faculty experiences with teaching 100% online courses. In this mixed methods exploratory study, the aim is to learn more about faculty perspectives and experiences in their online courses.

The research questions are:

1. What factors contribute to faculty experiences with online learning?
2. How does technology adoption influence faculty teaching experiences in online learning?
3. How do faculty teaching techniques in synchronous online classes align with their pedagogical philosophies?

Study Procedures: You will be asked to complete an internet survey that will identify faculty experiences with teaching and student learning in 100% online courses. This survey will take about ten minutes or less of your time. You will be invited to participate in a follow up interview lasting 15 to 30 minutes.

Risks/Discomforts

One potential risk could be unintentionally misinforming the subjects to some or all aspects of the research topic. To minimize this risk we will conduct the study using methods that do not require deception.

Additionally, the survey will include questions requesting demographic information. The combined answers to these questions may make you identifiable. We will make every effort to protect your confidentiality. If any of the interview questions make you uncomfortable or upset, you are always free to decline to answer or to stop your participation at any time.

Benefits

This study is not expected to be of any direct benefit to you at this time, but we hope to learn more about distance education from your participation.

Confidentiality

All data obtained from participants will be kept confidential. All questionnaires will be concealed, and no one other than the primary investigator and assistant researchers will have access to them. The data collected will be stored in the HIPPA-compliant, Qualtrics-secure database until it has been deleted by the primary investigator.

Compensation None

Participation

Participation in this research study is completely voluntary. If you desire to withdraw, please close your internet browser.

Questions about the Research

If you have any questions about the study, you may contact Dr. _____

Questions about your Rights as Research Participants

Your participation in the survey confirms that you have read all of the above and that you agree to all of the following: Investigators have explained the study to you and you have had an opportunity to contact him/her with any questions about the study. You have been informed of the possible benefits and the potential risks of the study. You understand that you do not have to take part in this study, and your refusal to participate or your decision to withdraw will involve no penalty or loss of rights or benefits. The study personnel may choose to stop your participation at any time. You understand why the study is being conducted and how it will be performed. You understand your rights as a research participant and you voluntarily consent to participate in this study. You understand you may print a copy of this form for your records.

Please answer this question.

Do you wish to participate in the study? (If you do not want to continue with the study, please close your browser window now.)

Please provide your contact information below if you are willing to participate in a 15-30 minute interview over the telephone or video conferencing.

First Name

Last Name

E-mail Address

Telephone Number (include area code)

Preferred day and time

What is your gender?

Male

Female

What is your age?

With which ethnic background do you most identify?

White
African American
Asian
Hispanic
Native American
Other

What is the highest degree you have completed?

Associate
Bachelor
Master
Doctorate
Post-Doctorate

What is your faculty rank?

Full-professor
Associate professor
Assistant professor
Instructor/lecturer
Other

What level of students do you teach?

Associate
Bachelor
Master
Doctorate
Post-Doctorate

How many children age 18 and under live with you? (Write the total number of children in each age group.)

How many under age 6?

How many over age 6?

What is your marital status?

- Married
- Single
- Divorced
- Widowed

Have you ever been a student in an online course?

- Yes
- No

What is your general teaching philosophy?

- Behaviorism/objectivism
- Cognitivism/pragmatism
- Constructivism/interpretivism
- Other

How many years have you been teaching online courses? (Online courses are those delivered using web technologies with no face-to-face or on-campus class meetings.)

- Less than 1 year
- 1-3 years
- 4-6 years
- 6 years or more

Do you hold synchronous online class meetings in any of your current online courses?

- Yes
- No

What LMS do you currently use?

- Moodle
- Blackboard
- Schoology
- Desire2Learn
- Canvas
- Other

What synchronous tools do you currently use?

- Adobe Connect
- Blackboard Collaborate
- Google Docs
- Skype
- iChat
- Big Blue Buttons
- Wimba Classroom
- WebEx
- GoToMeeting
- Other

What is your comfort level with each tool you use?

	Very Uncomfortable	Uncomfortable	Neutral	Comfortable	Very Comfortable	N/A
Moodle						
Blackboard						
Schoology						
Desire2Learn						
Canvas						
Adobe Connect						
Google Docs						
Skype						
iChat						
Big Blue Buttons						
Wimba Classroom						
WebEx						
GoToMeeting						

What is your level of training with each tool you use?

	No Training	Self-Taught	1-2 Hours of Training	3-5 Hours of Training	6-9 Hours of Training	10+ Hours of Training	N/A
Moodle							
Blackboard							
Schoology							
Desire2Learn							
Canvas							
Adobe Connect							
Google Docs							
Skype							
iChat							
Big Blue Buttons							
Wimba Classroom							
WebEx							
GoToMeeting							

How many hours do you spend preparing for one of your online classes each week?

- Less than 1 hour
- 1-2 hours
- 3-5 hours
- 6-9 hours
- 10+ hours

How many hours do you spend delivering one of your online classes each week?

- Less than 1 hour
- 1-2 hours
- 3-5 hours
- 6-9 hours
- 10+ hours

How many hours do you spend assessing your students in one of your online classes each week?

Less than 1 hour

1-2 hours

3-5 hours

6-9 hours

10+ hours

In your opinion, what is the level of interaction with and among your students in your online courses?

Low

Moderate

High

This is the end of the survey. Thank you for your participation! Please press the ">>" button to submit your responses.