The Differences of Faculty Voices: Views and Experiences with Online Learning

by

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Assessing the Impact of Course Delivery on Student Academic Success

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Abstract

The proportion of chief academic leaders who say online learning is critical to their long term strategy is now at 69.1%, the highest it has been for the last 10 years (Allen & Seaman, 2013, p. 4). Likewise, the proportion of institutions reporting online education is not critical to their long-term strategy has dropped to a new low of 11.2% (Allen & Seaman, 2013, p. 4). In spite of the above described facts, often, faculty may have mixed feelings concerning the adoption of e-courses. In an effort to expand upon research, the current investigation examined the views and experience of faculty at several institutions in reference to online education. The focus of this investigation was responses from post-secondary faculty at Youngstown State University (YSU) and other institutions. The survey questions replicated the study conducted by the Babson Survey and Research group, in 2007, titled *Online Learning as Strategic Asset* (Seamen, 2009) which examined the experiences of college faculty with online education. Also, questions from another study by Lloyd, Byrne, and McCoy, 2012, titled *Faculty's Barriers to Online Education*. In addition to examining the views of the faculty, a comparison of results gathered from the study will be conducted, with the results of the survey collected by the Babson Survey Research Group and non-YSU faculty. Results of the study identified faculty's "perceptions" as well as "perceived barriers" to online education. Resistance to online education is directly related to factors that were developed based on results of the survey. Primary factors include, but not limited to: Perceived Learning, Motivation to Teach Online, Perceived Institutional Support, Online Effort and Experience/Expertise. Secondary factors include, but not limited to: Ambiguous Expectations, Increased Workload, Lack of Faculty/Student Expectations, Lack of University Support, Lack of Student Commitment and Lack of Faculty Input.

Chapter 1

This chapter will explain the foundation, and support the need of the current investigation, and explain the theoretical framework. The current investigation seeks to examine the perceptions and opinions of higher education teaching faculty regarding online/distance education. Investigation seeks to replicate and expand upon earlier research conducted by The Sloan National Commission on Online Learning and The Association of Public and Land Grant Universities, using the services of the Babson Survey and Research Group (e.g., Allen & Seaman, 2008; Lloyd, Byrne, & McCoy, 2012). Analysis will include, but not be limited to, correlational and regression analyses.

Statement of the Problem

The objective of this research project is to examine the perceived barriers and perceptions of teaching online courses by higher education faculty. There has been a steady increase of need, especially with non-traditional students, to attend college through online coursework. According to Seaman 2009, "the faculty consistently rates the additional effort to develop and teach online courses the greatest barrier to engaging in online learning" (p.7). Also, according to Seamans' survey, "faculty give the lowest ranking to their institution's incentives for developing and delivering online courses" (p.8).Many faculty do not express a willingness to developing online courses, as well as teaching them. With an increase in the call for online courses to be offered, the faculty must be willing to accept the challenges of course development, teaching, and assessment in order to meet the requirements of this growing student population. "Exclusively, distance education students are a growing segment of the overall student population". For

the last year's analysis of fall 2013 enrollments, they comprised 12.5% (one-in-eight) of all higher education students" (Allen and Seaman 2016, p.10).

Purpose and Structure

The current trend in higher education is to provide students with choices regarding their course completion. With more schools adopting and expanding online and distance education, there is concern from faculty that developing online courses are more work than preparing for a face-to-face class. According to Seaman 2009, "over 85 percent of the faculty with online course development experience said it takes "somewhat more" or "a lot more effort" to develop an online class versus a class taught face to face (p.6)". In order for schools to maintain successful acceptance of online courses, the faculty must be willing to deliver online instruction and provide the student with research-based, high quality courses. Understanding the faculty's views and perceptions of online education will help to decrease the barriers and address the challenges that are associated with online education.

Purpose of the Study

The purpose of this investigation is to focus on understanding the faculty's views and perceptions of online education of various universities. Additionally, it is important to examine what potential moderators are involved the perceptions reported. Specifically, these moderators included part time/full time, tenured, length of time teaching, and prior experience of teaching online courses.

Significance of the **Study**

Opportunities for education have increased over the last 20 years with the availability of computers, educational management programs, and the World Wide Web

(Allen & Seaman, 2013). Individuals that once were excluded from a college education, due to location, work schedules, family obligations, physical disabilities, or limitations are now able to pursue schooling with the availability of distance education or web-based education. DE is ideal for the nontraditional learner and is convenient, cost effective, and flexible for individuals enrolled. DE has been utilized in several different forms. Asynchronous, synchronous, completely web-based (DL), Interactive Distance Learning (IDL), and hybrid courses, where the course includes both traditional classroom and web-based education.

A study by The Sloan National Commission on Online Learning and The Association of Public and Land Grant Universities, using the services of the Babson Survey and Research Group, was conducted in 2007 and published in 2009 to examine the faculty's experiences, attitudes, and beliefs (e.g., Allen & Seaman, 2008; Lloyd, Byrne, & McCoy, 2012). The study was a successor to a survey by the same group that looked at universities leaders, Presidents and Chancellors, and surveyed their views on online education. The current investigation will be a continuation of the second survey, *Online Learning as a Strategic Asset*, that examines the faculty's views on online education courses. As such, this investigation will provide current views and insight as to whether faculty participation is uniform or divided in the area of distance education

Research Questions

The following research questions are guiding the current investigation:

1. What are faculty experiences with teaching online classes?
2. What are faculty perceptions about their abilities for online delivery?
3. What are faculty perceptions about online course delivery?

4. What are the perceived barriers to online teaching?
5. How does online education compare to face-to-face courses?
6. What are faculty perceptions regarding support for teaching online?
7. What are faculty perceptions of Perceived Learning in an online class relative to a face-to-face class?
8. What classes do faculty indicate are and are not appropriate for online delivery?
9. How do participant response patterns compare to responses of previous research?

Definition of Terms

Face-to-face delivery: Identifies course delivery in a traditional, also known as, native, setting. Students attend a classroom with an instructor physically present for teaching. Students are engaged in active learning exercises, in-class discussions, and practical's (Scanlon, 2014).

Hybrid or Blended Learning: Refers to instruction that uses both, online and classroom delivery. The class will gather physically a set number of times and the rest of instruction is delivered through online or distance education. Blended learning, also referred to as hybrid learning, combines online education with traditional education (Finn & Bucceri, 2004). This method of course delivery provides an environment where the learners can study, regardless of time and place restrictions, according to their learning speed. Learners who have difficulty in establishing communication in the classroom environment may find it easier to communicate through an electronic platform.

Non-traditional student: A learner who is not a typical, conventional student in regard to age, responsibilities, commitment, and economic obligation, normally, has a family, and is employed to contribute to the economic wellbeing of the family. According to The National Center for Education Statistics (2014), "a non-traditional student's age is most often over the age of 24 and has been the defining characteristic for this population" (Bean & Metzner, 1985). "Age acts as a surrogate variable that captures a large, heterogeneous population of adult students who often have family and work responsibilities, as well as other life circumstances, that can interfere with successful completion of educational objectives. Other variables typically used to characterize nontraditional students are associated with their background (race and gender), residence (i.e., off campus), level of employment (especially working full time)" (Jones & Watson, 1990).

Online or Distance Education: Education provided through use of the Internet. Students can complete lessons from various locations as long as an Internet connection is available and they have computer access. As the popularity of the Internet has grown, so has the potential to learn online. Online learning is a method of studying in which lectures are broadcast or classes are conducted by correspondence or over the Internet. Online learning combines various types of online technology such as multimedia, video streaming, virtual classroom, and e-mail (Thorne, 2003). For the purpose of this study, online education is defined as 100% online; no face to face meetings are used.

Limitations and Delimitations

There are limitations and delimitations to the proposed research. First, the data being collected was generated from an electronically administered survey. While this

form of research provides greater opportunity to gather data, the responses that will be provided will be self-reported. There is no way to verify the authenticity of the responses; however, the data will be analyzed for reliability. Additionally, no identifying information will be gathered from participants, so the information that is generated about the personal demographics will be accepted as reported. While the data appears to provide very consistent responses, the questions are about the phenomenon of "experiences" and "perceptions" of the respondents and there may be some differences in how faculty interpreted the different items.

A delimitation to the proposed research is that the current investigation uses data from faculty from various universities. While the primary focus of the survey administration will be the teaching faculty at YSU, the survey administration will be expanded to other institutions. This will provide for some insight on how the faculty perceptions and experiences at YSU compare to faculty teaching at other post-secondary institutions.

Chapter 2

Review of the Literature

Chapter two provides a review of the literature relevant to the proposed investigation. First, a historical overview of distance education (DL), and its evolution over the last 150 years, is explored. Next, the "why" of online education will be discussed; why online education has continued to grow and increase in popularity with the non-traditional student, as well as, the traditional college student. Subsequently, an examination of the "who" of distance education will be reviewed. Who is the student who is most likely to attend classes online, and why is online education effective for them?

The concepts and theories of pedagogy versus andragogy will be introduced as they apply to online education. The theory of Transactional Distance will be identified, and its relevance to the independent learner of distance education. Also, perceived barriers to online education by faculty will be addressed. Finally, course development, delivery, quality assurance, its relevance to student expectations, and course completion will be discussed.

Historical Overview of Distance Education

According to Moore and Kearsley (2012) "distance education is teaching and planned learning in which teaching normally occurs in a different place from learning requiring communication through technologies as well as special institutional organization" (p. 3). "The basic idea of distance education is simple enough: teachers and students are in different places for all or most of the time that they teach and learn" (Moore & Kearsley 2012, p. 1). "Because they are in different places, in order to interact with each other, they are dependent on some form of communications technology".

Although distance education seems to be a new trend in education, this form of instruction has been in existence for close to 200 years. According to Anderson (2008), "Distance education is a discipline that subsumes the knowledge and practice of pedagogy, of psychology and sociology, of economics and business, of production and technology" (p. xiv).

"Most researchers have proposed that the advent of distance education coincided with the invention of new technologies such as the printing press, postal service, radio, television and Internet (Holmberg, 1995)". "Schlosser and Anderson (1994) stated that

the roots of distance education were more than 150 years old", while Moore and Kearsley (1996) referred to the origin of distance education in the United States as the beginnings of the correspondence courses offered in the early twentieth century". "The history of distance education has been divided into three generations: 1) correspondence study; 2) multimedia distance education; and 3) computer-mediated distance education" (Sumner, 2000, pp. 276-279).

Since the development of distance education in post-secondary sites, much has been changed, updated, and developed to assist with the faculty, and the students' needs. There have been many changes based on the constant development of new and innovative ideas. Before the advent of the Internet, distance education relied on audiocassettes, television, radio, and printed materials (Bates, 2005). Distance education depends primarily on the Internet to recruit and attract students, as well as provide course management and interactive classrooms for successful learning. According to Palloff and Pratt (2007),

> our more recent thinking about the elements that must be present in order for online community to form have continued to evolve. We now organize them into three groupings—people, purpose, and process—and believe that the outcome of a well-constructed, community-oriented online course is reflective/transformative learning. (p. 17)

According to Allen and Seaman (2013), the prototypical course classifications are as follows:

> A Traditional Course is where no online technology is used — content is delivered in writing or orally. A Web Facilitated Course is one that uses web-based technology to facilitate what is essentially a face-to-face course, 1 to 29% proportion of content is delivered online. Many use a course management system (CMS) or web pages to post the syllabus and assignments. A Blended/Hybrid Course is one that blends online and face-to-face delivery, 30 to 79% of the course is delivered online. Substantial proportion of the content is delivered online (30 to 79%) typically uses online discussions, and typically has a reduced number of face-to-face meetings. An Online Course is where most, or all, of the content is delivered online (80+%.), [and students] typically have no face-to-face meetings. (p.7)

There are three generations within the history of distance education: (1) correspondence study, (2) multimedia distance education, and (3) computer-mediated distance education (Sumner, 2000).

First Generation: Correspondence Study

Correspondence Study dates as far back as 1870 (Moore & Kearsley, 1996). Although distance learning has always had a presence, with over 60 million people in America enrolled in correspondence courses through 1945, key turning points in post-secondary education and distance learning stemmed from government legislation, during and after WWII (Education Online, 2011). Correspondence courses were initially developed and designed by the U.S. government to allow students an opportunity to study and learn from home. Packets of information were sent through the U.S. postal service to recipients who were interested in acquiring knowledge in particular subject areas. Correspondence courses were geared toward females who were interested in shorthand, stenography, and home economics. In 1900, Martha Rensselaer, Cornell University, Ithaca New York, developed a home economics' extension program that was targeted toward rural women throughout the state of New York. Within five years, over 20,000 women were enrolled (Education Online, 2011). This was an early indication of the interest and curiosity that was generated by home-based education.

Second Generation, Multimedia Distance Education

Multimedia distance education generally refers to several different forms of education presented at one time. This can include videos, hyperlinks with additional information, movies, and pre-recorded lectures by instructors. "It is important to fully understand the meaning of the terms *multimedia* and *distance learning*. Multimedia is a concept that emerged in the 1950s, and commonly referred to a method that combined at least two media formats, such as text and video or audio, at one time, to derive a more complete, not necessarily, educational, effect" (Genden, 2005). Another definition of

multimedia is: “Media providing multisensory experiences, such as sound, visuals, animation and interaction with the media” (Porter, 2004, p. 311). Porter maintained that multimedia use in online distance education may include any additional materials utilized within a course, such as linked text documents, simulations, linked video, games, and music. Multimedia interactivity usually refers to a particular kind of technology and not group behaviors, such as emails between students (Dempsey & Van Eck, 2002).

However, the greatest difference between old and new media is in their capacities to sustain two-way, communication aids’ learning (Lockwood, 2013, p. 8). A second substantial difference between old and new media is that, through the latter, students are able to explore massive knowledge stores, i.e., databases (Lockwood, 2013, p. 8). Through the use of computer-mediated distance education, the approach to distance education has drastically changed.

Computer-mediated Distance Education

Computer-mediated distance education is also known as *groupware*. According to Schummer and Lukosch (2013), a groupware application is a combination of software, hardware, and social processes that support groups in their interaction. The groupware is, thus, what mediates interaction in computer-mediated interaction (p. 1). Groupware is able to include participates from various geographical locations and provide collaboration of individuals working toward a common goal. Groupware is an important tool that assists team members, especially those in virtual teams, to work effectively together (Li, Guo, & Zheng, 2015).

Margaret Rouse provided a more precise explanation for groupware when she stated that

> Groupware services can include the sharing of calendars, collective writing, e-mail handling, shared database access, electronic meetings with each person able to see and display information to others, and other activities. Sometimes called collaborative software, groupware is an integral component of a field of study known as Computer-Supported Cooperative Work or CSCW. (Rouse, 2005, p.1)

Groupware is often used for student group projects in a traditional classroom setting as well as distance education. Groupware is often broken down into categories, describing whether or not work group members collaborate in real time (synchronous groupware and asynchronous groupware) (Rouse, 2005, p.1).

Massive Open Online Courses (MOOCs)

"A massive open online course (MOOC) is an online course aimed at unlimited participation and open access via the web. In addition to traditional course materials, such as filmed lectures, readings, and problem sets, many MOOCs provide interactive user forums to support community interactions among students, professors, and teaching assistants (TAs). MOOCs are a recent and widely researched development in distance education" (Bozkurt et al., 2015, p.335) "which were first introduced in 2008 and emerged as a popular mode of learning in 2012" (Pappano, 2012; Lewin, 2012). Traditional online courses charge tuition, carry credit, and limit enrollment to a few dozen to ensure interaction with instructors. The MOOC, on the other hand, is usually free, credit-less, and massive (Pappano, 2012). "Only a small portion of higher education institutions are engaged with MOOCs, and adoption levels seem to be plateauing" (Allen & Seaman, 2016, p. 38).

According to Allen and Seaman (2016), reports from the last three years noted that only a small number of institutions either had, or were planning, a MOOC (p. 6). They stated that "many institutions (27.8%) report they are still undecided about MOOCs, while the single largest groups (58.7%) say they have no plans for a MOOC" (p. 6).

The "Why" of Online Education

Introducing distance education to an institution takes a great deal of organization, knowledge, support, and preparation. A major question that must be answered, while trying to implement a distance education program, is "why?" Why is a distance education program necessary or desired for the particular establishment? According to Moore and Kearsly (2012, p. 8), reasons included

- Increasing *access* to learning and training as a matter of equity;
- Providing opportunities for *updating* skills;
- Improving the cost *effectiveness* of educational resources;
- Improving the *quality* of existing educational structures;
- Enhancing the *capability* of the educational system;
- *Balancing inequalities* between age groups;
- Delivering educational campaigns to specific *target audiences;*
- Providing emergency training for key *target groups;*
- Expanding the capacity for education in *new subject* areas;
- Offering combination of education with *work and family life; and*
- *Adding an international dimension* to the educational experience.

Another source of rationale used to support the adoption of online courses is improving student retention. “Some institutions are using online courses to improve retention rates by making courses available to students who would otherwise be “closed out” of traditional courses due to limitations on course size or conflicts with other required subjects” (Bacow, Bowen, Guthrie, Lack, & Long, 2012). This ensures that the student will be able to maintain courses relevant to their degree without wasting time and money on unnecessary courses simply to fill their schedule.

According to Bacow et al., “urban institutions face particularly intense demands on space. Baruch College in New York City has seen extraordinarily high usage of its facilities, and hopes to reduce the strain on facilities (and save students commuting time) by moving more classes online. George Washington University in Washington, D.C., is renting extra space for various university programs at great expense, and also faces government-imposed enrollment caps at its urban campuses. Online education is seen as an alternative both to new construction, off campus, and as a way to grow its enrollment within the enrollment caps at the Wichita, Kansas, Foggy Bottom campus. Suburban institutions face different challenges”. At Northern Virginia Community College (“NVCC), heavy traffic and long commutes to the various campuses make attending classes a challenge for students and faculty alike. In such a setting, online instruction is attractive for everyone” (p.12). The authors also stated “many suburban institutions are also struggling with rapid enrollment growth. For example, NVCC is experiencing 8 to 10 percent growth in enrollment”, “while, and at the same time, state funding is declining by 25%. The institution is under great pressure to serve its growing population more

efficiently and lacks the resources to expand its physical campuses fast enough to do so" (p.12).

According to Moore and Kearsley (2012), distance education has been categorized in five generations. The levels of education indicate the changes that have taken place throughout time with development and improvements in technology over the years. They identified the five generations:

> The *First Generation* was the introduction of instruction outside the traditional classroom setting. The introduction of correspondence, home schooling, and independent learning was the beginning of individualized instruction. The *Second Generation* was the creation of the radio broadcast age. Within this era there was minimal if any, interaction between the students and instructor. This era did however link the student and instructor through oral and visual level. The *Third Generation* emerged from an American experiment that connected audio/video correspondence with face to face learning. The *Fourth Generation* used audio, video, and computer teleconferencing. This was a form of education that was popular for business training. This linked instructors with the participant from a distance. The *Fifth Generation* created an online connection to the World Wide Web that allows for many types and forms of education to be accessed through the web. Within this form of distance education there are a variety of forms of communication that are used to provide information and knowledge to students. Video

> conferencing, audio and texts are a few of the ways that education is conducted. (p.24)

As the evolution of online education continued to change and develop, based on developing technology and growing course offerings, the type of student enrolling, in this form of course delivery, also evolved. Who are the students utilizing online education and why do the numbers continue to grow?

The "Who" of Distance Education

Beyond busy schedules, there are other visible reasons that online programs are beneficial. Often, the location of a college is an issue for many individuals. Many students live in rural areas with no access to a college or an educational facility (Open Education Database, 2012). Also, students who are handicapped, and may have a difficult time with transportation or accessibility, may take advantage of online education. A current investigation by Erickson and Larwin (2016) found that distance education had a significant impact on disabled students' ability to attend, and be more successful, in their academic preparation. Therefore, distance education can be a bridge to access for those with disabilities. Beyond the types of students who will opt to partake in a distance education class, is a greater concern about how to effectively reach and differentiate instruction for these individuals. Concerns regarding pedagogy and andragogy, and how to best serve the "virtual" student populations continue to exist.

Pedagogy versus Andragogy

Pedagogy is the concept of instruction with goals and objectives usually developed by the instructors. This term, often times, is associated with children or younger learners. The younger student is motivated by the educator, not by their own

desires. The original idea of pedagogy is if a person becomes educated, they will become an asset to society. Paulo Freire (2000), author of *Pedagogy of the Oppressed,* suggested that particular governments try to keep the individual oppressed so the society will not have too many educated or scholarly citizens, and this group will never be bright enough to be productive in society, hence, keeping a society of rich and poor.

A common way of approaching pedagogy is as the art and science (and, perhaps, craft) of teaching (Smith, 2012). More specifically, a good way of exploring pedagogy is as the process of accompanying learners, caring for and about them, and bringing learning into life. (Smith, 2012)

John Dewey was a pioneer of adult education. Dewey School, at the University of Chicago, emphasized a balance between philosophy and natural science, which Dewey defined as pragmatism. Dewey sought students to learn from hands-on experience. His famous essay, in which he identifies and unpacks his ideas of pragmatism, is titled *Reflex Arc Concept in Psychology 1896.* In this writing, he treated the stimulus as separate from response. Later, these ideas were coined as behaviorism (Hauser, 2016).

Dewey presented this notion of the reflex arc as a combination of sensory stimulus, central connection, and the motor response, working together. A person focuses on something, then decides what to do, and, then, acts on the decision (Warde & Novack, 2005).

"Dewey advocated for an educational structure that strikes a balance between delivering knowledge, while also taking into account the interests and experiences of the student. He notes that the child and the curriculum are simply two limits which define a single process. Just as two points define a straight line, so the present standpoint of the

child and the facts and truths of studies define instruction" (Dewey, 1902, p. 16). It is through this reasoning that Dewey became one of the most famous proponents of hands-on learning, or experiential education, which is related to, but not synonymous with, experiential learning.

Malcolm Knowles (1984) was one of the first theorists to recognize that adults learn differently than children; he called it "andragogy." Knowles (1984) defined andragogy "as the art and science of helping adults learn." Knowles model proposed that adults share a number of similar learning characteristics, and, that, those characteristics can be used in planning adult programs" (p. 31). He argued that "if knowledge comes from the impressions made upon us by natural objects, it is impossible to procure knowledge without the use of objects which impress the mind" (Dewey, 1916/2009, pp. 217–218).

Malcolm Knowles was influential in the field of adult education. His work was a significant factor in reorienting adult educators from "educating people" to "helping them learn" (Knowles, 1950, p. 6). Andragogy, according to Knowles, is associated with distance, or online education. As previously discussed, the typical distance education student is a non-traditional student with other responsibilities, other than school. The non-traditional student is best educated by self-motivation. Many adult learners have experienced life lessons and began higher education as a means to increase family income, or even a personal goal of earning a college degree. Online education provides this opportunity to the student. A matter of convenience, self-motivation, and individual goal-setting provides this benefit to the student.

Knowles' theory of andragogy is an attempt to develop a theory specifically for adult learning. Knowles emphasizes that adults are self-directed and expect to take responsibility for decisions. Adult learning programs must accommodate this fundamental aspect with instructional design (Knowles, 1984).

While the concept of andragogy had been in spasmodic usage since the 1830s, it was Malcolm Knowles (1984) who popularized its usage for English language readers. For Knowles, andragogy was premised on at least four crucial assumptions about the characteristics of adult learners, which are different from the assumptions about child learners, on which traditional pedagogy is premised. Knowles added a fifth concept in 1984 (Pappas, 2013). According to Knowles (1984) and Pappas (2013), these include

> 1. Self-concept: As a person matures his self-concept moves from one of being a dependent personality toward one of being a self-directed human being.
> 2. Experience: As a person matures, he accumulates a growing reservoir of experience that becomes an increasing resource for learning.
> 3. Readiness to learn. As a person matures, his readiness to learn becomes oriented increasingly to the developmental tasks of his social roles.
> 4. Orientation to learning. As a person matures his time perspective changes from one of postponed application of knowledge, to immediacy of application, and accordingly his orientation toward learning shifts from one of subject-centeredness to one of problem centeredness.
> 5. Motivation to learn: As a person matures, the motivation to learn is internal. (Knowles, 1984, p. 12, Pappas, 2013, p.1)

As Knowles' theory of adult education began to develop, and was recognized by other social theorists, he later identified four principles that are applied to adult learning:

1. "Adults need to be involved in the planning and evaluation of their instruction".
2. "Experience (including mistakes) provides the basis for the learning activities".
3. "Adults are most interested in learning subjects that have immediate relevance and impact to their job or personal life".
4. "Adult learning is problem-centered rather than content-oriented. (Knowles, 1984, p. 12; Pappas, 2013, p. 1)"

Dewey's (1902), and later, Knowles' (1950) premise of andragogy, were presented well ahead of the explosion of online courses in higher education. What was not addressed in Dewey's premise is how this exchange of teaching and learning is accomplished when transactional distance is added to the equation.

Transactional Distance

In the summer of 1972, Michael Moore made a presentation to the World Conference of International Counsel for Correspondence Education (ICCE) meeting in Warrenton, Virginia, on the topic of *Learner Autonomy: The Second Dimension of Independent Learning* (Moore, 1972, p.76). In 1971, Allen Tough, a professor in the Department of Adult Education at the Ontario Institute for Studies in Education (OISE), published a book titled *The Adult's Learning Projects*. The book was one of the first that addressed adult education, and how adults learn. Professor Tough believed that adult learners are self-directed and self-motivated learners. He maintained that once an adult learner reached their goal, they become motivated to accomplish higher goals, which, in

turn, allows for self-actualization and realization of immense potential. Tough was a proponent of learning projects as an effective tool with adult learners.

"A learning project is defined by Tough as a "sustained, highly deliberate effort to learn" and his work focused on episodes, where more than half of the person's intention was to gain and retain certain, definite knowledge and skill. He refers to this as a "very deliberate learning episode" (Schugurensky, 2006, p.1; Tough, 1971). The theory of Transactional Distance emphasizes the cognitive distance between learner and educator. The further the student and educator are apart, physically, the more the learner's autonomy must increase. It is important that alternative methods of education and course delivery are used to ensure the distance education student obtains the necessary knowledge and education, set with course goal and objectives.

Transactional Distance Theory has been directly associated to distance education. Students enrolled in distance education courses maintain a great deal of learner autonomy. Using the Transactional Distance Theory, students are located in different geographic areas, which allows for levels of detachment between student and instructor. Accordingly, students must maintain a great deal of independence to be successful with distance education. Structural coursework provided by the instructor is important, as well surety that course goals are met by all students.

According to Moore and Kearsley (2012),

> The concept of learner autonomy is that learners have different capacities for making decisions regarding their own learning. The ability of a learner to develop a personal learning plan—the ability to find resources for study in one's own work or community environment, and the ability to decide

> for oneself when progress was satisfactory—need not be convinced as extraneous and regrettable noise, in a smooth running, instructor controlled system. (p.213)

Recognizing this, the distance education student must maintain their own goals in association to the course structure and expectations, in order to successfully complete the course work. The students who are not prepared to self-regulate are the students who will not likely do well in the online classroom (Simon & Yatrakis, 2002). Simon's and Yatrakis' (2002) research examined the impact of self-selection into online classes, through a study, randomly assigning half of the participants to online, or face-to-face general psychology sections, and allowing half of the participants to self-select into the same general psychology section they wanted to take. Results indicated that students who were able to self-select out-performed their peers. They conclude that, students who understand the work requirements and responsibilities associated with each type of course, will be better prepared to make the best decision about their coursework.

The Why of Adults in Distance Education Courses

Adults who enroll in college courses usually have specific goals and learning plans, in order to make the decision to attend school with other obligations, such as family, work, children activities etc. These individuals tend to be highly motivated, task-oriented students (Moore & Kearsley, 2012, p. 151). For example, according to Moore and Kearsley (2012),

> some adults enroll in distance education courses to compensate for a neglected high school education; others are seeking college credit courses; many take non-credit in a plethora of subjects just to improve their general

> knowledge or to satisfying pastimes. In America today, education is presented primarily as a personal investment, with the return being improvements in employability or income. (p.151)

These suppositions, regarding employability or increased income, are based on the assumption that the additional coursework, certification, and/or degrees provide quality instruction.

Quality of Online Course Development

Quality Assessment: As with any type of education, quality assurance is an important and necessary aspect of continued improvement. There are several factors that need to be continually evaluated to ensure quality education to the participating student. According to Moore and Kearsley (2012),

> there are a number of other factors that might be monitored, including: (a) number and quality of applications and enrollments; (b) student achievement; (c) student satisfaction; (d) faculty satisfaction; (e) program or institution reputation; and (f) the quality of course material. Each of these factors reflects different aspects of the quality of an institution's products and services. (p.185)

Quality Matters™

Quality Matters™ is a nationally recognized program to certify online courses and mechanisms. It is a course-improvement system, highlighted by a guided rubric. Quality Matters™ is a peer-reviewed course, which is a best practice standard, to enable faculty-focused collaboration toward continuous improvement of online designs (Shattuck [as cited in Moore & Kearsley, 2012]). Quality Matters™ has a notable "rubric" of standards

that the course designer should follow to ensure success and continued improvement in an Internet-based class. The Quality Matters™ rubric for the standards expected in distance education was first developed in 2005. Every two to three years, a team of distance educators conduct a peer reviewed analysis of the existing rubric and suggest changes, based on the changing needs of the students, their learning capabilities, and current technology.

According to Quality Matters™, there are eight general standards that Quality Matters™ relies on for calibration and essential conformity. The eight standards are

1. Course Overview and Introduction;
2. Learning Objectives (Competencies);
3. Assessment and Measurement;
4. Instructional Materials;
5. Course Activities and Learner Interaction;
6. Course Technology;
7. Learner Support; and
8. Accessibility and Usability.

Within those eight standards are 40 specific principles, heavily annotated, and pre-weighted as either essential or very important (Quality Matters Rubric, 2014). The reviewer will assess where each standard has been met at an established threshold (Shattuck, [as cited in Moore & Kearsley, 2012, p. 191]).

The review process is completed by peer reviewers from the institution, and follows the Quality Matters™ rubric for assessment. The reviewers do not review the teaching within the course, but the organization and delivery components. It is ideal for

online courses to go through the Quality Matter™ review process, in order to ensure that the course will provide the necessary organization for the student.

Demographics of the Average Distance Education

The Online Learning Center (formally known as The Sloan Consortium), a non-profit organization, is an institutional and professional leadership organization dedicated to integrating online education into the mainstream of higher education (Allen & Seaman, 2011). The 2011 Sloan Consortium report stated online education has grown to 6.1 million students enrolled in at least one online course to degree-granting, post-secondary institutions as of fall of 2010. The increase in online enrollments from 1.6 million, in the fall of 2002, to 6.1 million, in the fall of 2010, equates to a compound, annual, growth rate of 18.3%; The overall, higher education, student body annual growth rate of just over 2%, in that same period, increased from 16.6 million, in the fall of 2002, to19.6 million, in the fall of 2010 (Allen & Seaman, 2011).

The National Center for Education Statistics (2014, NCES) recently released data showing, that roughly one in every ten students, in post-secondary education, are exclusively enrolled in online programs (NCES, 2014). Statistics, according to the NCES, in the years 2011-2012, revealed the average, distance education student, taking undergraduate, distance education classes included the following:

- The average percentage of students enrolled in online courses: 32%
- Percent of undergraduate students taking exclusive online classes by age:

  15-23: 4.5%

  24-29: 10.4%

30 or older: 15.6%

- Percent of undergraduate students taking any online classes by age:

  15-23: 26.5%

  24-29: 36.5 %

  30 or older: 40.9%

- Male students: 28.5%;
- Female Students: 34.5%; and
- Employed at the time of enrollment: 36.2%. (p.1)

The complete table of the NCES data on post-secondary students in online classes can be found in Appendix A.

Course Delivery and Learning

There are three primary means of course delivery through online education: synchronous, asynchronous, and blended learning, or hybrid courses. Synchronous instruction occurs when students and instructor are present at the same time, at different locations, and participate simultaneously in the conversation. Synchronous education and communication involves real time communication between teachers and students, most commonly in the form of text chat (Johnson, 2006). Schwier and Balbar (2002) suggested that synchronous education and communication allow for the learner to experience additional value, a sense of community. Also, it is beneficial if the student has a feeling of urgency, immediacy, and feels passionate about an issue expressed in the discussion.

Asynchronous instruction is one of the most prominent forms of online instruction. Most interaction between learners and instructors, and learners online, takes the form of asynchronous interaction, since that meets the needs of students for convenient (any place/any time) study (Moore & Kearsley, 2012). With this type of distance education, students and instructor do not "sync" their online time or interactions. Students complete assignments that are posted by the instructor; the instructor reacts/responds to the students' submitted work or discussion comments at varying time.

Blended Learning, or hybrid course delivery, is a course in which up to 30% to 80% of its content is delivered online (Allen & Seaman, 2013), and is typically referred to as the combining of face-to-face learning and computer-mediated delivery in planned learning (Moore & Kearsley, 2012). "According to Yamagata-Lynch, (2014), several authors pointed out that institutions of higher education may refer to blended learning as a combination of online and face-to-face learning, when it involves anywhere from 20% to 80% blending of online instruction with traditional face-to-face courses. In many cases, there is no agreed upon percentage of what constitutes a course as blended, and, in many institutions, there are idiosyncratic definitions of online, distance education, and blended instruction".

The Need for Distance Learning

A common question that is examined is how students feel about distance learning relative to a traditional classroom (Moore & Kearsley, 2012, p.163). In many cases, students will say that they like the environment of a traditional classroom, they learn better, and tend to be more prepared for class. The same students will say they enjoyed

their distance education class, but preferred the traditional setting. However, according to Moore and Kearsley, 2012, this has little to do with the presentation of the course work.

> Sometimes there are problems (e.g., equipment failure, inexperienced instructors) that produce negative attitudes towards distance learning. Very similar problems can happen in the traditional classroom, but absence of the "father figure" or "mother figure" to take care of them is disconcerting for some students. Most students are able to cope with the problems, and most students actually enjoy taking responsibility for solving their own problems. However, this is obviously harder work than letting a teacher do it, so, some negative attitude to distance learning comes from reluctance to take responsibility and make an effort. Fortunately, this only applies to a minority of students. In well implemented courses, students are very positive about their distance-learning experiences and many prefer such courses over traditional classes. (p.163)

An important aspect of continued use of distance education and success is student satisfaction. In 1991, St. Pierre and Olsen found that the following factors contributed to student satisfaction in independent study courses: (a) the opportunity to apply knowledge, (b) prompt return of assignments, (c) conversations with the instructor, (d) relevant course content, and, (e) a good study guide (Moore & Kearsley, 2012, p. 164; St. Pierre & Olsen, 1991). Conversely, given the above suggestions for student satisfaction, students will describe dissatisfaction in their online courses.

For the faculty, the preparation for instruction of an online class is more difficult than that of a traditional classroom. According to Allen and Seaman (2013), "The percent of academic leaders who believe it takes more faculty time and effort online has increased from 41.4 percent in 2006 to 44.6 percent in 2012" (p. 5). In addition to the preparation aspect of an online course, faculty report that the delivery of an online course is exponentially more time consuming than the traditional face-to-face delivery (Seaman, 2009). According to Seaman (2009), most professors who had not delivered an online course believed that quality and Perceived Learning for the online courses were inferior to traditional face-to-face instruction.

Barriers to Adoption of Online Learning in Higher Education

Although the need for online/distance learning continues to grow, there are still barriers that faculty, as well as supporting schools face. According to Bacow et al. (2012), some presidents, provosts, and deans have created special, online degree programs often targeted at non-traditional students. Schools will frequently employ instructors recruited specifically to teach in the online program. Segregating the online presence from traditional offerings allows an institution to price discriminate between programs. It may also reduce potential opposition to conversion of traditional modes of instruction to a form that many faculty have yet to embrace, and separate any risks associated with online offerings from the rest of the institution and the institution's brand (p. 14). The act of hiring outside instructors often creates tension with the full-time professors who typically teach face-to-face courses, instilling fear that online instruction will be used to diminish faculty ranks. A common theme heard on virtually all campuses was that online instruction should not be used to reduce faculty employment (Bacow et

al., 2012, p. 20). The presidents, provosts, and deans also are mindful that others (specifically those that rank institutions) closely watch student-faculty ratios, and that it will work to their disadvantage if online education drives these ratios up (Bacow et al., p. 20). When the overall, university budget is at stake, the higher the student/faculty ratio, the better, in turn reducing instructional costs. Maguire (2005) "identified additional barriers, which include: increased workload that deterred from research time, lack of recognition in both the area of tenure and promotion and equality in regards to face-to-face instruction, and a lack of monetary compensation for developing, or teaching, online courses. Faculty were also concerned about lack of standards in online education, the impact that the online atmosphere would have on job security, and the quality of instruction"

Many faculty are opposed to teaching online courses because they fear it will distance them from their students. Much of why professors pursue jobs in higher education is the interaction with the student.

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Existing Research

Research in the area of distance education has been completed by many private and public organizations. The Online Learning Consortium (OLC), formally known as the Sloan Consortium (Sloan-C), has been dedicated to continued research in the area of distance education. Starting out as Sloan-C "in 1992, they have been the leading professional online learning society devoted to advancing quality e-Education into the mainstream of education through its community" (OLC, 2016).

According to OLC (2016), since research started in 1992, the Foundation funded 346 projects totaling $72 million, most of which were made to non-profit colleges and universities. Major distance and adult learning providers, such as the University of Maryland University College and the Penn State World Campus, were early grantees" (OLC, 2016). The OLC (2016) is the leading professional organization devoted to advancing quality online learning by providing professional development, instruction, best practice publications, and guidance to educators, online learning professionals, and organizations around the world (OLC, 2016).The Consortium stated "we have evolved into an institutional and professional leadership organization dedicated to integrating online education into the mainstream of higher education, helping institutions and individual educators improve the quality, scale, and breadth of online education" (OLC, 2016).

The OLC (2016) and the Babson Survey Research Group (2016), in partnership with OLC (2016), Pearson, WCET, StudyPortals, and Tyton Partners, survey colleges and faculty for accurate information concerning online learning (Babson Survey Research Group, 2016).

Summary

The review of the literature provides an overview of distance/online, face-to-face, and hybrid instruction. This review of the literature also examines the ideas of pedagogy and andragogy as important considerations in any delivery of instruction in the higher education arena. The growth and expansion of online and distance education is explored, including the how it changes the expectations and experiences for both the students and the teaching professional. Lastly, the question of quality education is posited in an effort

to juxtapose the focus of the current investigation. Based on the need for online education, the current investigation will seek to examine the barriers of the adoption of distance/online education on the faculty at YSU and other universities, and, subsequently, encourage and stimulate faculty involvement in online education and identify potential motivation for participation.

Chapter 3

Method

The current investigation seeks to examine the perceptions and opinions of higher education teaching faculty regarding online/distance learning. This investigation seeks to replicate and expand upon earlier research cited previously (e.g., Allen & Seaman, 2008; Lloyd, Byrne, & McCoy, 2012). Chapter three provides the description and details of the research design, the participants, instrumentation, procedures, and proposed data analysis.

Research Questions

The following research questions guided the current investigation:

1. What are faculty experiences with teaching online classes?
2. What are faculty perceptions about their abilities for online delivery?
3. What are faculty perceptions about online course delivery?
4. What are the perceived barriers to online teaching?
5. How do online experiences compare to face-to-face courses?
6. What are faculty perceptions regarding supports for teaching online?
7. What are faculty perceptions about Perceived Learning in an online class relative to a face-to-face class?
8. What classes do participants indicate are and are not appropriate for online delivery?
9. How do participant response patterns compare to responses of previous research?

Participants

Participants will include teaching faculty at institutions of higher learning in NE Ohio. The primary institution of data collection was YSU, however, permission was sought to distribute the survey through mass emailing at other universities. No identifying information was collected from participants.

Instrumentation

The primary instrument for the current investigation was the survey questions provided at https://www.surveymonkey.com/r/OnlineEducationStudy. This survey included 26 items that parallel the information collected by Allen and Seaman (2008), Lloyd, Byrne, and McCoy (2012), and the SLOAN (2012) research studies on faculty perceptions about online education. The items included in the survey were drawn from the results sections of the two stated studies. The former studies did not provide reliability estimates, however, reliability estimates are provided in the Results section of this manuscript. The full survey is provided in Appendix B.

Demographic items included gender, age, employment status, tenure status, number of years teaching, academic rank, and college affiliation. A group of questions regarding experience with technology and online teaching included these items:

1. How confident are you with technology?
2. Have you ever taught an online course?
3. Are you currently teaching an online course?
4. Are you required to teach online courses?
5. Have you ever developed an online course?
6. Are you currently developing an online course?

7. Does your institution contract with outside agencies to develop online courses?
8. Does your institution contract online course delivery from outside agencies?

The next section asked participants to describe their level of expertise with (a) online education, (b) teaching an online course, (c) taking an online class, (d) designing an online class, and (e) modifying an online class. Response choices included "no experience", "some experience", "a lot of experience" and "expert."

Based on the results of the Lloyd, Byrne, and McCoy (2012) study, participants were asked to indicate how much of a barrier they felt the following were to online teaching:

a. Increased workload;
b. Time commitment;
c. Lack of personal relationship with students;
d. Frequent technology failures;
e. Inadequate compensation for instruction;
f. Inadequate technology support;
g. Inadequate time for grading and feedback;
h. Lack of social interaction within the class;
i. Inadequate instructor training;
j. Impersonal;
k. Lack of control over student cheating/plagiarism;
l. Online work not valued for promotion or tenure;
m. Rapidly changing software of delivery systems;
n. Lack of visual cues from students;

o. Lack of enrollment limits;

p. Lack of policies of standards for online courses;

q. Lack of DSL/fast access for students;

r. Inadequate pedagogical skills for online teaching;

s. Lack of faculty involvement in course decision making;

t. Lack of control over property rights;

u. Lack of quality of courses;

v. Personal anxiety/fears with technology/online learn;

w. Students need of more discipline; and

x. Lower retention rates.

Responses to these items ranged from "not a barrier", "somewhat a barrier", "a barrier" and "a significant barrier." Participants were asked to indicate on "a lot less" to " a lot more" scale on how online education compared to face-to-face course delivery on the following activities: (a) effort to develop, (b) effort to teach, (c) time spent grading, (d) time helping students, (e) time advising students, (f) time responding to students, (g) the enrollment cap, (h) speed in responding to student questions, and (i) speed in responding to student emails.

Participants were asked to respond to the following question: what is your opinion about the Perceived Learning in online classes by indicating one of the following responses:

a. Inferior to face-to-face;

b. Somewhat inferior to face-to-face;

c. The same as face-to-face;

d. Somewhat superior to face-to-face; and

e. Superior to face-to-face

Additionally, participants were asked to indicate if they had recommended an online course to a student or advisee (yes or no response). The next section asked participants to indicate whether items were "not important", "important", or "very important" regarding Why would you teach an online class?

a. Meet student needs for flexible access;

b. Best way to reach particular students;

c. For personal or professional growth;

d. It is what students want;

e. For pedagogical advantages;

f. To earn additional income;

g. To help increase enrollment; and

h. Faculty are required to teach online.

Participants were also asked to indicate the level of support at their institution for (a) technology infrastructure, (b) support for online development, (c) support for online delivery, (d) support for online students, (e) policy on intellectual property, (f) incentives for developing online courses, and (h) incentives for online delivery.

Open-ended questions include the following:

a. What types of courses do you think are most appropriate for online delivery?

b. What types of courses do you think are not appropriate for online delivery?

c. What would help you to be more motivated to teach online classes?

d. Additional comments about online course delivery.

Procedures

An Internal Review Board (IRB) protocol was submitted to the YSU IRB for approval of the proposed project. Upon approval, the survey was distributed to the faculty at YSU and other universities that have agreed to distribute the link to the survey which was administered through Survey Monkey inventory. Data will be kept in a secure, password-protected cloud space for analysis.

Data Analysis

The data were analyzed on two levels. First, the data was used to address the research questions listed above. Secondly, the participant responses were compared to the response of the SLOAN (2012) study to see if faculty perceptions had changed since that data collection. Analysis included, but was not limited to, correlational and regression analyses.

Summary

The current investigation is an analysis that included, but was not limited to, correlational and general linear model analyses and an investigation of quantitative data, in an effort to assess the faculty perceptions of online course delivery and their experiences in the online delivery arena. Also, an examination of the perceptions and opinions of higher education and teaching faculty regarding online/distance education were examined. An IRB protocol was submitted to the YSU IRB for approval of the proposed project. Upon approval, the YSU Institutional Research Office was asked to fulfill a data query with the above stated variables.

Chapter 4

Results

This chapter will present the descriptive statistics for the participant responses. Next, preliminary analyses discuss the creation of factors, both manually and with Principal Axis Factoring**.** Zero-order correlations and statistical assumption tests are presented. Finally, results of inferential analyses are provided.

The purpose of the current investigation was to examine faculty experiences and perceptions of online education at Youngstown State University, non-YSU institutions, and in comparison to data from a 2009 study (Babson, 2009). Additionally, this investigation aimed to examine what potential moderators are involved in those reported perceptions. Specifically, this investigation sought to answer the following research questions:

1. What are faculty experiences with teaching online classes?
2. What are faculty perceptions about their abilities for online delivery?
3. What are faculty perceptions about online course delivery?
4. What are the perceived barriers to online teaching?
5. How does online education compare to face-to-face courses?
6. What are faculty perceptions regarding support for teaching online?
7. What are faculty perceptions of Perceived Learning in an online class relative to a face-to-face class?
8. What classes does faculty indicate are and are not appropriate for online delivery?

9. How do participant response patterns compare to responses of previous research?

The total number of participants completing the survey was $n = 237$. This sample was based on $n = 185$ responses provided by faculty at Youngstown State University (YSU) and faculty ($n = 52$) from other colleges and universities. The survey was administered through Survey Monkey and distributed to all full time and part time faculty at Youngstown State University through university e-mail. The Online Learning Survey Asset (OLSA) (Seaman, 2009) which was used as a point of comparison, included $n = 10,720$ participants from 2009.

Descriptive Analysis

Table 1 provides a breakdown of the gender distribution for participants from YSU, Non-YSU and the OLSA report. These values are presented as percentages.

Table 1. *Distribution by Gender across Groups*

	Female	Male
YSU	56.8	43.2
NON	63.5	36.5
OLSA	45.5	46.9

As indicated above there were more female respondents than male respondents, across the three samples. Notably, the Non-YSU sample had the greatest female representation. Table 2 provides the distribution of responses on self-reported Teaching Status. These values are presented as percentages.

Table 2. *Distribution by Teaching Status across Groups*

	Full-Time	Part-Time
YSU	64.3	35.7
NON	71.2	28.8
OLSA	69.1	30.8

As indicated above, the Non-YSU respondents are represented by the most full-time faculty participating in the survey. Similarly, Table 3 provides the distribution of respondents self-reported tenure status. These values are presented as percentages.

Table 3. *Distribution by Tenure Status across Groups*

	Tenure Track	Tenure	Not Tenure Track	Other
YSU	12.4	30.8	45.4	11.4
NON	9.6	26.9	51.9	11.5
OLSA	19.8	40.7	31.2	<1

The "Other" category in Table 3 indicates responses of faculty that did not provide a response that fit into to the other categories. A complete list of their responses to the "Other" category is provided in Appendix B. Table 4 provides a breakdown of the number of reported years of teaching. These values are presented as percentages.

Table Four. *Number of Years Teaching*

	5 or Less	6 to 9	10 to 19	20 plus
YSU	21.1	20.5	29.2	29.2
Non-YSU	21.1	17.3	30.8	30.8
OLSA	21.9	13.2	28.6	26.8

As indicated above, the distribution of number of years teaching is relatively similar across the three samples of data.

Next, the college affiliations of the teaching areas were examined. This information was established from participant's self-reported areas of teaching, and that area of teaching was categorized according to the colleges at YSU. If the area of teaching is not represented at YSU (such as Radiology) the response was coded as "Other". These breakouts are provided in Table 5. These values are presented as percentages.

Table 5. *Colleges Represented in the responses*

College Affiliation		HHS	CLASS	STEM	BUS	CAC	BCOE	Other
	YSU	26.5	25.9	14.6	10.8	4.3	11.4	6.5
	NON	51.9	13.5	9.6	1.9	1.9	13.5	7.7

As indicated above, the highest representation is found for teaching areas in the HHS, as defined by the college structures at YSU. A complete list of the responses to this item is provided in Appendix B. Table 6. provides a breakout of the rank of the participants. These values are presented as percentages.

Table 6. *Academic Rank of respondents*

Rank	Asst Professor	Assoc. Professor	Full Professor	Other
YSU	17.3	15.1	14.6	53.8
NON	15.4	15.4	15.4	53.8

As indicated above, the distribution of reported ranks were similar across the YSU and Non-YSU participants. The "other" category was used for responses that did not fit into

the traditional academic ranks. As indicated above, the responses are provided in Appendix B.

Participants were asked to indicate their level of confidence using technology. These results are provided in Table 7. These values are presented as percentages.

Table 7. *Reported Level of Confidence with Technology*

		Not At All	Somewhat	Confident	Very Confident
How Confident w/Technology	YSU	0.5	24.9	32.4	40.5
	NON	0	13.5	46.2	40.4

As indicated above, most faculty participants report being confident with technology. Of these respondents, 13% of YSU faculty indicated that they were required to teach online, while 30.8% of Non-YSU faculty indicated that they were required to teach online. These participants also indicated their level of online teaching experience. These responses are provided in Table 8. These values are presented as percentages.

Table 8. *Online Teaching Experience*

	YSU	NON	OLSA
Ever Taught Online	49.7	82.7	36.7
Currently Teaching Online	30.3	61.5	-
Currently Developing Online Class	26.5	28.8	-
Ever Developed Online Class	45.9	76.9	36.7

As indicated above, Non-YSU respondents overwhelmingly report having experience teaching an online class, and developing an online class. After this question, participants

were asked to indicate their level of expertise with different aspects of online delivery. These results are provided in Table 9. These values are presented as percentages.

Table 9. *Participants Reported Level of Expertise*

		None	Somewhat	A Lot	Expert
Online education.	YSU	21.1	35.1	28.6	8.1
	NON	3.8	19.2	59.6	15.4
Teaching an online class.	YSU	38.9	22.7	22.2	8.6
	NON	11.5	25	46.2	15.4
Taking an online class.	YSU	30.8	33	18.4	10.8
	NON	13.5	38.5	25	21.2
Designing an online class.	YSU	39.5	30.3	16.2	6.5
	NON	9.6	36.5	46.2	5.8
Modifying an online class.	YSU	42.2	25.9	16.8	8.1
	NON	13.5	23.1	51.9	9.6

As indicated in Table 9, the Non-YSU faculty report higher levels of expertise across the different aspects of online course delivery. The level of experience/expertise will be used in to create a factor score below.

Table 10 provides participant responses to how online classes compare to traditionally delivered classes. These values are presented as percentages.

Table 10. *How online classes compare to face-to-face*

How do online classes compare to face-to-face:		A Lot Less	Somewhat Less	About the Same	Somewhat More	A lot More
Effort to teach	YSU	4.3	11.9	29.2	29.7	12.4
	NON	1.9	19.2	30.8	36.5	9.6
Time Spent Grading	YSU	3.2	8.6	45.9	15.1	14.1
	NON	1.9	7.7	38.5	34.6	11.5
Time Helping Students	YSU	4.9	20	27.6	25.9	9.7
	NON	3.8	21.2	26.9	30.8	13.5
Time Advising Students	YSU	10.8	21.6	30.3	17.3	8.1
	NON	7.7	21.2	42.3	21	3.8
Time Responding to Students	YSU	3.2	6.5	47.6	19.5	8.6
	NON		3.8	36.5	30.8	25
Speed In Responding to Online Student Questions	YSU	2.7	7.0	44.9	17.8	4.6
	NON	0	7.7	51.9	26.9	9.6
Speed In Responding to Online Student Emails.	YSU	2.7	7.0	44.9	17.8	14.6
	NON	0	5.8	48.1	28.8	13.5

Based on these responses, most participants are reporting that the online classes require about the same or more effort than face-to-face delivery of classes. The responses to these items are used to develop an Online Effort score for later analysis.

Next, participants were asked to indicate what they believed about the Perceived Learning from online classes. These results are presented in Table 11. These values are presented as percentages.

Table 11. *Learning Outcomes*

	Inferior	Somewhat Inferior	The Same	Somewhat Superior	Superior
YSU	25.4	27.0	28.1	6.5	1.6
NON	25.0	26.9	38.5	7.7	0.0
OLSA	32.3	37.7	23.0	5.8	1.2

Based on these responses, the largest number of responses indicate that the online delivery produces lower learning outcomes compared to face-to-face classes. Lastly, Table 12 provides participant feedback regarding support structures. These values are presented as percentages.

Table 12. *Support Structures*

		Below	Average	Above	N/A
Technology infrastructure	YSU	18.4	38.4	19.5	9.7
	NON	9.6	48.1	38.5	1.9
	OLSA	22	36	42	0
Support for online development	YSU	23.2	34.1	18.4	10.8
	NON	17.3	46.2	30.8	3.8
	OLSA	34	34	32	0
Support for online delivery	YSU	16.8	37.3	22.2	9.7
	NON	17.3	44.2	34.6	1.9
	OLSA	34	34	32	
Support for online students	YSU	18.9	41.6	13.5	12.4
	NON	21	48.1	23.1	3.8
	OLSA	30	44	24	0
Policy on intellectual property	YSU	18.4	39.5	8.6	20
	NON	15.4	59.6	13.5	9.6
	OLSA	40	40	20	0
Incentives for developing online courses	YSU	38.4	29.2	4.9	14.1
	NON	48.1	32.7	5.8	11.5
	OLSA	52	32	16	0
Incentives for online delivery	YSU	37.8	30.8	3.8	13.5
	NON	50	32.7	3.8	11.5
	OLSA	52	32	16	0

The strongest level of endorsement in Table 12 is in the "average" level response, with the exception of "Incentives for online delivery". For this item, all sample participants predominately endorsed that the supports were below average.

Preliminary Analysis

Factors were built to represent the following perspectives: (1) Online Effort, (2) Perceived Experience/Expertise Score, (3) Motivation to Teach Online, and (4) Perceived Institutional Support Scores. These factors were established by manually summing the

individual participant responses to the items in questions 20, 16, 23 and 24, respectively. The Online Effort factor was created from participant responses to the following items:

- Effort to develop
- Effort to teach
- Time spent grading
- Time helping students
- Time advising student
- Time responding to students
- Speed in responding to online student questions
- Speed in responding to online student emails

This factor has an estimated Cronbach's $\alpha = .843$. The Perceived Experience/Expertise Score factor was created from participant responses to the following items:

- Online education.
- Teaching an online class.
- Taking an online class.
- Designing an online class.
- Modifying an online class.

This factor has an estimated Cronbach's $\alpha = .902$. The Motivation To Teach Online factor was created from participant responses to the following items:

- Meet student needs for flexible access
- Best way to reach particular students
- For personal or professional growth
- It is what students want

- For pedagogical advantages
- To earn additional income
- To help increase enrollment

This factor has an estimated Cronbach's α = .702. The Perceived Institutional Support factor was created from participant responses to the following items:

- Technology infrastructure
- Support for online development
- Support for online delivery
- Support for online students
- Policy on intellectual property
- Incentives for developing online courses
- Incentives for online delivery.

This factor has an estimated Cronbach's α = .920. The descriptive data, by group (YSU or NON-YSU) are presented in Table 13.

Table 13. *Descriptive Analysis for Online Effort, Experience, Motivation and Support Scores*

	Online Effort	Perceived Experience/Expertise Score	Motivation To Teach	Perceived Institutional Support Score
Mean	30.04	10.83	16.27	11.38
SD	6.48	4.14	3.45	5.06
Skewness	-0.711	0.39	-0.30	-0.68
Kurtosis	2.72	-0.65	0.40	0.23

As seen in Table 13, the data for these factors are all within acceptable ranges of skewness and kurtosis (|2.0| and |5.0| respectively, Field, 2009).

Next, an exploratory factor analysis of the responses to questions about barriers to online learning was conducted in order to understand what underlying factors presented from the current sample data. This factor analysis was conducted using a Principle Axis Factor approach. This method is used to extract Principal Axis Factors with a direct oblimin rotation, explaining 19.6% of the variance with 20 of the 23 items. The results of the Principle Axis factor analysis was six factors that represented the barriers that participants responded to in the survey. The rotated factor matrix is provided in Table 14.

Table 14.

Items	1	2	3	4	5	6
Inadequate instructor training	0.722					
Inadequate pedagogical skills for online teaching	0.664					
Personal anxiety/fear with technology/online teaching	0.514					
Lack of policies or standards for online courses	0.434					
Increased workload		0.886				
Time commitment		0.845				
Impersonal			-0.973			
Lack of social interaction within the class			-0.84			
Lack of personal relationship with students			-0.721			
Lack of visual cues from students			-0.556			
Lack of control over student cheating/plagiarism			-0.393			
Inadequate technology support				0.858		
Inadequate time for grading and feedback				0.514		
Inadequate compensation for online instruction				0.514		
Frequent technology failure				0.429		
Students need more discipline					0.939	
Lower retention rates					0.662	
Online work not valued for promotion and/or tenure						0.640
Lack of faculty involvement in course decision making						0.531
Lack of enrollment limits						0.455

Extraction Method: Principal Axis Factoring.
Rotation Method: Oblimin with Kaiser Normalization.a
Note: Rotation converged in 11 iterations.

The Barrier factors resulting from the factor analysis were constructed by mean computation across the individual participant responses. The factors were named

accordingly: Factor 1: Ambiguous Expectations; Factor 2: Increased Workload; Factor 3: Lack of Student Faculty Interactions; Factor 4: Lack of University Support; Factor 5: Lack of Student Commitment; and Factor 6: Lack of Faculty Input. The mean response for these factors across the two groups is presented in Table 14b.

Table 14b. *Average Response Based on Barrier Factors.*

	Ambiguous Expectations	Increased Workload	Lack of Student/Faculty Interactions	Lack of University Support	Lack Of Student Commitment	Lack Of Faculty Input
Non	2.15	2.42	2.87	2.07	2.50	2.54
YSU	2.36	2.44	2.73	2.12	2.49	2.73

Zero-order correlations were conducted in an effort to see what associations exist between the Perceived Learning, the six Barrier Factors, and the Online Effort, Expertise, Motivation To Teach Online, and the Perceived Institutional Support Scores. The results of the analysis are presented in Table 15.

Table 15. *Zero Order Correlations for Factors*

	Perceived Learning	Motivation To Teach Online	Institutional Support Score	Online Effort	Perceived Experience/ Expertise Score
Perceived Learning	1	.430**	.309**	-0.016	.319**
MTO	.430**	1	.278**	0.032	.199**
Institutional Support Score	.309**	.278**	1	-0.084	.304**
Online Effort	-0.016	0.032	-0.084	1	0.074
Perceived Experience/Expertise Score	.319**	.199**	.304**	0.074	1
Ambiguous Expectations	-.152*	-0.057	-.304**	.157*	-.326**
Increased Workload	-0.087	-0.071	-0.071	.304**	-0.02
Lack of Student Faculty Interactions	-.562**	-.315**	-.335**	.137*	-.335**
Lack of University Support	-.251**	-0.102	-.205**	.208**	0.001
Lack Of Student Commitment	-.304**	-.192**	-.230**	0.052	-.238**
Lack Of Faculty Input	-0.089	-0.078	-.275**	0.05	-.139*

Note: ** Correlation is significant at the 0.01 level; * Correlation is significant at the .05 level (2-tailed).

Based on the results presented in Table 15, there are moderate positive significant correlations found between the Perceived Learning, Motivation to Teach Online, Perceived Experience/Expertise Score and Perceived Institutional Support Scores, while Online Effort was not correlated with these primary factors. The six Barrier factors revealed small to moderate significant correlations with most of the primary factors (Perceived Learning, Motivation to Teach Online, Expertise Score and Perceived Institutional Support Scores). Additionally the Ambiguous Expectations, Increased

Workload, Lack of Student/Faculty Interactions, and Lack of University support were all negatively correlated with Online Effort.

Inferential Analysis

Based on the findings of the above zero-order correlation, a Multivariate Analysis of Variance was conducted, with the Motivation to Teach Online, Perceived Experience/Expertise Score, and Perceived Institutional Support Score as the dependent measures, and the Perceived Learning measure as the predictor variable, and the six Barrier Factors as covariates. This was deemed the most appropriate analysis since (1) significant correlations exist between all primary factors, with the exception of Online Effort; (2) significant correlations exist between the six Barrier Factors and the primary factors, and (3) faculty beliefs regarding Perceived Learning from online learning are correlated with all factors. The Online Effort factor was not included in the multivariate analysis because it is not correlated with the other outcome variables.

A Levene's Test of Equality of Variances was conducted in an effort to assess if the distribution of each outcome variable was statistically different across the different levels of reported Perceived Learning. The Levene's Test of Equality of Error Variances was found to be tenable for all three outcome variables. These results are presented in Table 16.

Table 16. *Levene's Test of Equality of Error Variance*

	F	df1	df2	Sig.
Motivation To Teach Online	0.803	4	206	0.525
Perceived Experience/Expertise Score	0.516	4	206	0.724
Institutional Support Score	2.416	4	206	0.050

Additionally, a Box's M Test was conducted to assess if the variances for the three outcome variables were consistent for the multivariate variable. The Box's M Test results indicates that the Test of Equality of Covariance Matrices is tenable for the MANOVA, $F(18, 15211) = 27.56$, $p = .091$. The results of the Multivariate Analyses are presented in Table 17.

Table 17. *Multivariate Analysis based on Hotelling's Trace*

	Value	F	df	df	Sig.
Ambiguous Expectations	0.058	3.838	3	198	0.011
Increased Workload	0.004	0.287	3	198	0.835
Lack of Student/Faculty Interactions	0.021	1.419	3	198	0.239
Lack of University Support	0.023	1.544	3	198	0.204
Lack Of Student Commitment	0.005	0.302	3	198	0.824
Lack Of Faculty Input	0.021	1.395	3	198	0.246
Perceived Learning	0.178	2.915	12	590	0.001

As indicated in Table 17, the factors that are significantly correlated to the Multivariate variable (made up of Motivation to Teach, Perceived Experience/Expertise Score, and Perceived Institutional Support Score) are the "Ambiguous Expectations" and the "Perceived Learning" factors. Based on the zero-order correlations above, these Ambiguous Expectations was negatively correlated with the three outcomes variables, and Perceived Learning was positively correlated with the three outcome variables. The results of the Test of Between Subjects Effects are presented in Table 18.

Table 18. *Test of Between Subjects Effects*

Tests of Between-Subjects Effects	Factor	F	Sig.
Ambiguous Expectations	Motivation To Teach Online	1.356	0.246
	Perceived Experience/Expertise Score	**7.796**	**0.006**
	Perceived Institutional Support Score	2.816	0.095
Increased Workload	Motivation To Teach Online	0.413	0.521
	Perceived Experience/Expertise Score	0.044	0.833
	Perceived Institutional Support Score	0.253	0.616
Lack of Student/Faculty Interactions	Motivation To Teach Online	1.901	0.170
	Perceived Experience/Expertise Score	2.439	0.120
	Perceived Institutional Support Score	0.93	0.336
Lack of University Support	Motivation To Teach Online	0.275	0.601
	Perceived Experience/Expertise Score	1.492	0.223
	Perceived Institutional Support Score	1.921	0.167
Lack Of Student Commitment	Motivation To Teach Online	0.899	0.344
	Perceived Experience/Expertise Score	0.037	0.847
	Perceived Institutional Support Score	0.041	0.839
Lack Of Faculty Input	Motivation To Teach Online	0.131	0.717
	Perceived Experience/Expertise Score	0.177	0.675
	Perceived Institutional Support Score	3.596	0.059
Perceived Learning	**Motivation To Teach Online**	**5.573**	**0.000**
	Perceived Experience/Expertise Score	**2.908**	**0.023**
	Perceived Institutional Support Score	1.803	0.130

As indicated above, the Perceived Experience/Expertise Score was found significant across the different levels of Ambiguous Expectations. Also, Motivation to Teach Online

and Perceived Experience/Expertise Score was found significant across the different levels of reported Perceived Learning.

Table 19 provides the means of responses on each of the outcome factors for the Online Perceived Learning question, by response level.

Table 19. *Online Learning Outcome Response Levels by Primary Factor*

What is your opinion about the learning outcomes in online classes?	Motivation To Teach Online	Perceived Experience /Expertise Score	Perceived Institutional Support Score
Inferior to face-to-face (n = 58)	14.138	9.517	9.121
Somewhat inferior to face-to-face (n = 63)	16.365	10.429	11.444
The same as face-to-face (n = 71)	17.394	12.338	12.493
Somewhat superior to face-to-face (n = 16)	18.188	13.688	13.125
Superior to face-to-face (n = 3)	21.333	11.667	18.000

Qualitative Responses

Two questions asked respondents to indicate:

1. **What types of courses do you think are most appropriate for online delivery?**
2. **What types of courses do you think are not appropriate for online delivery?**

The open-ended responses were reviewed for most frequently occurring themes. For the question about what types of course do you think are most appropriate for online delivery, the primary themes are presented in Table 20.

Table 20. *Appropriate Courses*

Appropriate Courses Response Theme	*Frequency*
Basic level or Gen Ed	41
All or any classes	16
All except clinical lab	13
Graduate	6
No classes	1

Similarly, faculty provided some responses regarding courses that they did not feel were appropriate for online delivery. The most frequently occurring themes are presented in Table 21.

Table 21. *Inappropriate Courses*

Not Appropriate Response Theme	*Frequency*
Advanced/Upper Level	10
Discussion Classes	10
All Classes	7
Lab Components	54
Seminar/Capstone	5
Remedial	3
Course requiring quick feedback	3
Building Relationships/Interpersonal Skills	2

As indicated above, the most frequently indicated inappropriate courses fell under the themes Advanced and/or Upper Level, and Discussion Classes. Seven of the respondents indicated that all classes were inappropriate for online instruction. All open-ended responses are provided in Appendix B.

Summary

This chapter presents the results of the current investigation examining faculty views and perceptions of online teaching and learning. The descriptive statistics for gender, teaching status, tenure status, years of teaching and academic rank of participants

were provided. Additionally, participants' level of confidence with technology, online teaching experience, and self reported levels of expertise was examined across the YSU, non –YSU and OLSA responses. Participant's reflections regarding the comparisons between online and face to face classes as well as Perceived Learning are examined. Lastly responses from YSU, non-YSU and OLSA participants regarding Perceived Institutional Support structures were evaluated.

Factors were constructed to indicate the reported Online Effort, Perceived Experience/Expertise, Motivation to Teach Online and a Perceived Institutional Support. Responses to identified barriers to online teaching and learning were factor analyzed through principle axis factor analysis. The results of this analysis were the creation of six factors explaining 19.6% of the variance of 20 of the 23 barrier items. Zero-order correlations between the reported Perceived Learning, the primary factors and the six barrier factors were conducted. Results indicate that Online Effort was not associated with Perceived Learning, expertise, Motivation to Teach Online or level of Perceived Institutional Support.

A MANOVA was deemed to be the most effective analysis for addressing the stated research questions. The results of the MANOVA indicate that Perceived Learning and barrier factor of ambiguous expectations were significantly related to the multivariate outcome variable. Specifically ambiguous expectations are negatively related and Perceived Learning are positively related to the three outcome variables (Motivation to Teach Online, Perceived Experience/Expertise, Perceived Institutional Support) based on the zero order correlations. The test of between subject's effects indicates that different levels of reported endorsement of the ambiguous expectations variable are significant on

the Perceived Experience/Expertise Score. Additionally, Motivation to Teach Online and reported expertise scores were found to be significant across the different levels of Perceived Learning indicated.

Open ended responses indicate that most participants believe that basic level or GEN. Ed. classes are most appropriate for teaching online. Respondents also indicated most frequently, classes with lab component and/or clinical instruction is not appropriate for online instruction.

CHAPTER FIVE

DISCUSSION & CONCLUSION

The current investigation examined reported faculty experiences and perceptions regarding teaching and learning in online course delivery. Faculty at YSU and other institutions were provided with the opportunity to respond to a 29 question survey that included both selected response and open ended questions. The data from $n = 237$ faculty responses is included in the results of the current investigation.

This chapter will review and discuss the findings relative to each of the research questions, as well as discuss the implications of those finding to the existing literature. Additionally, the chapter will discuss the factors that were developed as a part of this investigation. Next, the findings and implications of the inferential analysis are discussed. The limitations and directions for future research are presented, followed by a discussion of the conclusions.

Research Questions

Research Question #1: What are faculty experiences with teaching online classes?

As indicated in Table 8, fewer faculty at YSU have experience teaching online, relative to non-YSU respondents. Additionally, the number of faculty indicating they have online teaching experience at YSU is only 13% higher than the percentage of faculty reporting to have online experience in the 2009 Babson study. While the current investigation is represented by a sample of the YSU faculty who were willing to participate in the investigation, the $n = 187$ participants represents approximately 20% of full-time and adjunct teaching faculty.

Research Question #2: What are faculty perceptions about their abilities for online delivery?

Faculty responded to one item regarding their confidence with technology and five items about their level of expertise. As indicated in Table 7., non-YSU faculty endorsed higher levels of confidence with technology relative to YSU responders. Likewise, on faculty responses to reported level of expertise (Table 9), non-YSU faculty endorsed higher levels of expertise/experience across the five items, with non-YSU faculty Perceived Experience/Expertise Scores (M = 13.17) higher than the YSU faculty Perceived Experience/Expertise Scores (M = 10.16).

Based on the previously cited literature, although the need for online/distance learning continues to grow, there are still barriers that faculty, as well as supporting schools face (Lloyd, Byrne, & McCoy, 2012).As with any type of education, quality assurance is an important and necessary aspect of continued improvement. Many faculty do not have training in online course development. Or the school does not offer professional development in the specific area of technology, leaving many faculty with a void in knowledge of online education. According to more recent research, faculty members need hands-on experience as they enter the realm of teaching online for the first time. Learning to use technology tools in a proficient manner takes time. For faculty members who have not accomplished a level of comfort and/or proficiency with technology tools, it may have more to do with a lack of time and less to do with opposition (Thormann & Zimmerman, 2012; Chiasson, Terres & Smart 2015, p.232). As a result of teaching online, faculty have increased their confidence and believed they

became better instructors in their face to face courses (Chiasson, Terres & Smart 2015, p. 236).

Research Question #3: What are faculty perceptions about online course delivery?

The overall perceptions from faculty for teaching online appear to be mixed. Some faculty have communicated that: "the only good class for online instruction is a class on online instruction", "more compensation", "better institutional training" and "better technology". While conversely, many faculty have expressed a positive attitude to online education: "I like the freedom", I like the "flexibility" and "I wish I were offered more online teaching".

Research Question #4: What are the perceived barriers to teaching online?

Respondents were asked to respond to 23 questions about the perceived barriers to teaching online. Responses to the barrier items were evaluated through Principal Axis Factor Analysis. Based on the results of the factor analysis, six Barrier Factors were revealed. When examining the YSU faculty endorsement of these factors, relative to non-YSU faculty, the non-YSU faculty endorsed the barriers lower for "Ambiguous Expectations", "Lack of University Support", and "Lack of Faculty Input", while YSU endorsed barriers lower for the "Lack of Student/Faculty Interactions". The "Increased Workload" and "Lack of Student Commitment" was endorsed at the same level across the two samples of participants.

As indicated above, faculty struggle with several areas of disconnect in reference to "perceived barriers" (Lloyd, Byrne, & McCoy, 2012). For the faculty, the preparation for instruction of an online class is more difficult than that of a traditional classroom

These researchers suggest that in addition to the preparation aspect of an online course, faculty report that the delivery of an online course is exponentially more time consuming than the traditional face-to-face delivery. According to Seamon (2009), most professors who had not delivered an online course believed that quality and Perceived Learning for online courses were inferior to traditional face-to-face instruction.

Additionally, faculty are opposed to teaching online courses because they fear it would distance them from students (Samuel, 2015). Faculty were concerned about lack of standards in online education, the impact that the online atmosphere would have on job security, and the quality of instruction (Maguire, 2005). Those faculty who had the least experience with online education perceived the barriers as greater than those who had the most experience with online education (Lloyd, Byrne, & McCoy, 2012, p. 8). This is consistent with the findings of the current investigation.

Research Question #5: How do online experiences compare to face-to-face courses?

Respondents were asked to respond to seven questions comparing online classes to face to face classes. Specifically, these questions sought to understand the how faculty perceived the time and effort of the online delivery relative to the face to face delivery. As indicated in Table 10, responses indicate that non-YSU faculty indicate higher levels of effort in comparison to YSU faculty, however the average "Online Effort" score for non-YSU faculty (M = 30.43) small difference from the score for YSU faculty (M= 29.91).

In addition to the preparation aspect of an online course, faculty report that the delivery of an online course is exponentially more time consuming than the traditional face-to-face delivery (Mandernach, Hudson, Swinton; Wise, 2013).For the faculty, the

preparation for instruction of an online class is more difficult than that of a traditional class.

Research Question #6: What are faculty perceptions regarding supports for teaching online?

Participants were asked to indicate their perceptions regarding Perceived Institutional Supports for teaching online. While faculty from YSU endorsed "Below Average" at a higher rate for "technology infrastructure", "support for online development" and "policy on intellectual property", YSU faculty endorsed "Below Average" at a lower rate for "incentives for developing online courses" and "incentives for online delivery" relative to non-YSU faculty and OLSA respondents. However, the average Support Score for YSU faculty was lower (M = 10.93) than the average support score for non-YSU faculty (M = 12.76).

Based on existing research, faculty indicate that preparation for instruction of an online class is more difficult than that of a traditional classroom (Lloyd, Byrne, & McCoy, 2012; Mandernach, Hudson, Swinton; Wise, 2013). Additionally, the findings of Maguire (2005) identified additional barriers, which include: increased workload that deterred from research time, lack of recognition in both the area of tenure and promotion and equality in regards to face to face instruction, and a lack of monetary compensation for developing, or teaching, online courses.

Research Question #7: What are faculty perceptions about Perceived Learning in an online class relative to a face-to-face class?

Respondents were asked to indicate on an "Inferior" to "Superior" scale as to what they believed were the Perceived Learning in an online class relative to a face-to-

face class. Results indicate that YSU and non-YSU faculty responded similarly, while the results of the OLSA endorsed lower levels of learning relative to the current investigation's sample participants. However, there was 10 percent more non-YSU faculty indicating that the Perceived Learning were the same relative to the YSU respondents. Consistent with Seamon (2009), most professors who had not delivered an online course believed that quality and Perceived Learning for the online courses were inferior to traditional face-to-face instruction.

Research Question #8: What classes do participants indicate are and are not appropriate for online delivery?

Participants were asked to indicate in two open-ended questions what they believed to be appropriate and not appropriate classes for online delivery. These questions were responded to by $n = 167$ of the participants. Courses such as "basic" and "Gen Ed" were most frequently identified as appropriate, followed by "all classes" and "all except clinical labs". Laboratory classes were overwhelmingly identified as the type of class not appropriate for online delivery.

It seems appropriate that faculty would perceive General Education courses as appropriate for online delivery. General Education courses are considered low on the Bloom's taxonomy objectives of learning. In contrast the course that requires a clinical, lab or human interaction component would be difficult, if not impossible, to present online.

Factor Analysis

The study utilized participant's responses to explore potential factors beyond previous research. Initially, four factors were developed from participants' response to

items intended to measure the "Online Effort", the "Expertise", the "Motivation to Teach Online" and the "Perceived Institutional Supports". Each battery of items was deemed to be reliable measures of the factor it was intended to measure. These values were used in the MANOVA analyses.

Additionally, a Principal Axis factor analysis was conducted. The result of this factor analysis was the clean identification of six factors. These six factors describe different barriers identified with online teaching:

1. Ambiguous Expectations
2. Increased Workload
3. Lack of Student/Faculty Interactions
4. Lack of University Supports
5. Lack of Student Commitment
6. Lack of Faculty Input/Voice

These factors expand on earlier research that identified four factors as barriers: "(1) interpersonal barriers; (2) institutional barriers; (3) training and technology barriers; and (4) cost/benefit analysis barriers." (Lloyd, Byrne, & McCoy, 2012, p.1). The current investigation builds upon these findings.

The items associated with the Ambiguous Expectations in the online course delivery factor focus on responses to Barrier questions about (a) inadequate instructor training, (2) inadequate pedagogical skills for online teaching, c) personal anxiety/fear with technology and online teaching, and (d) lack of policies regarding course standards. Interestingly, this factor was significantly but negatively correlated with

"Perceived Learning", "Motivation to Teach Online", "Perceived Institutional Supports" and "experience/expertise" scores.

Consistent with previous research examining stated faculty needs and concerns, findings suggest that "specific instructional and/or pedagogical challenges for which faculty seek additional support...clarification or support to ensure instructional effectiveness...challenges with course…. curriculum or institutional understanding" (Elliott, Rhoades, Jackson, & Mandernach, 2015, p. 177) were the top concerns stated by faculty participants. These researchers suggest that more needs to be done to establish ongoing professional development that is flexible, online, and addresses the specific areas of weakness/needs. It is likely that until faculty feel confident in their ability to meet the expectations, their Motivation to Teach Online and their confidence in online delivery to produce good Perceived Learning will not be maximized.

Workload was also found to be a significant Barrier factor in the current investigation. As expected, the workload factor was significantly correlated with participant responses on the "Online Effort" factor. Previous research has investigated the impact of online course delivery on reported workload. Findings cite such activities as student communication, grading of assignments, professional development and understanding technology, and the components of instruction as time burdens (Mupinga & Maughan, 2008). Similarly, Mandernach, Hudson, & Wise (2013) report that faculty maintain that assessing student learning, communication with students, and course facilitation (p.9) are responsible for the greatest amount of time in on the online course delivery. The workload factor that came out of the current investigation had a significant positive moderate correlation with the "Online Effort" factor that was created from

participants' response to the questions about how the online delivery compared to face-to-face delivery.

Lack of Student/Faculty Interactions was also identified as a Barrier factor in the current investigation. This factor was negatively correlated with "Perceived Learning", "Motivation to Teach Online", Perceived Institutional Support" and "Expertise" score. The direction of these associations is as expected. Existing research suggests that isolation is a concern that faculty have identified as problematic with the online course delivery (Samuel, 2015). While this research suggests that you cannot duplicate the face-to-face experience in the online arena, faculty can be taught to develop more presence by creating opportunities for engagement and providing personalized responses.

Lack of University Supports was a factor identified from the response to Barriers in the online course delivery. These items included inadequate technology support, time for grading and feedback, inadequate compensation for online instruction, and frequent technology failures. This factor was positively correlated with "Online Effort" and this barrier factor was negatively correlated with "Perceived Learning" and Perceived Institutional Support" score. Surprisingly, it was not correlated with "Motivation to Teach Online".

Previous research has suggested that "time" and "compensation" support are concerns that faculty has identified as lacking and/or barriers to teaching online (Lloyd, Byrne, & McCoy, 2012). Because the additional time requirements of teaching and communicating online, faculty have indicated that more time or money is needed to make it worth their time. This is consistent with the findings of the current investigation.

Student Level of Commitment was the fifth factor identified in the Barriers to online teaching. This factor was built from responses of faculty indicating student's need for discipline and the lower retention rates which are barriers in the online course delivery. This factor was negatively correlated to "Perceived Learning", "Motivation to Teach Online" and the "expertise" score. This factor was built from the strongest loading items. According to Porter (2015), there is little empirical research available on student retention or level of engagement in online courses.

The last Barrier factor, Lack of Faculty Input, was supported by response to the following items: online work not valued, lack of faculty involvement in course decision making, and lack of enrollment limits. This factor was negatively correlated with the "Perceived Institutional Support" score and the 'expertise" score.

MANOVA Results

A Multivariate Analysis of Variance was used to test the associations between the "Perceived Learning" responses, the six barrier factors, and the outcomes variables of Motivation to Teach Online, the Perception of University Supports, and the Perceived Experience/Expertise Score. Results indicated that the Ambiguous Expectations and Perceived Learning were both significantly related to the multivariate dependent variable, Perceived Learning. The Test of Between Subject Effects revealed that Perceived Expertise was significantly different across the Ambiguous Expectations, and Perceived Expertise and Motivation to Teach Online was significantly different across different levels of Perceived Learning. The higher the perception about Ambiguous Expectations was associated with lower levels of reported Expertise. The Motivation to Teach Online

and the expertise were higher with a higher perception of Perceived Learning. As expected, these results are consistent with the zero-order correlations that were presented in chapter four; however, the significance testing provides indications as to where the effects are the greatest.

Future Research

The current research is the maiden investigation into this specific research arena for future research in the area of online education. The survey continues to collect responses, with more than 100 additional responses since the data was downloaded for this research. Additional research should examine the student side of the online learning equation. While the popularity of online coursework is driven by student demand, it would be instructive to understand student's perceptions and experiences with the online coursework. This information could be used to help faculty to understand what students find helpful, what student feel should change, and what types of faculty development would be deemed appropriate. Additionally, Porter (2015) maintains that there is a lack of research about student retention in the online arena. Since completion is the new focus of higher education in Ohio, understanding retention issues and rates would be an important area of investigation.

Conclusions

The current investigation research spun off the Babson (2007) study "Online Learning as a Strategic Asset". Initially, this researcher proposed to explore if different Perceived Learning result from online versus face-to-face delivered courses. As the Babson research findings imply, the explosion of online courses has been a "strategic asset" for the institutions that have successfully developed online programming. The

explosion of online delivery is not about Perceived Learning, it's about providing a service that students are willing to participate in. And, while the current study was able to get a measure of Perceived Learning, as perceived by its respondents, the Perceived Learning measure was significantly correlated with respondent's perceptions about their expertise with online course delivery, their Perceived Institutional Supports, and their Motivation to Teach Online. Is it possible that the more experience faculty have with online teaching (expertise), the more motivated faculty will be to teach online, and the more that they have positioned themselves to see the positive impact in Perceived Learning? The finding of the current investigation suggests that this in fact may be the trend.

Perceived Learning makes for an optimistic learning environment for students as well as faculty involved with course creation. Although, the study initially set out to measure the faculty's perceptions using constructs such as "barriers" of online learning, the feedback received represented the full spectrum of possible responses.

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APPENDIX A

Table 311.22. Number and percentage of undergraduate students taking distance education or online classes and degree programs, by selected characteristics: Selected years, 2003-04 through 2011-12

[Standard errors appear in parentheses]

Selected characteristic	Percent of undergraduate students taking distance education classes								2011-12							
	2003-04				2007-08				Number of undergraduate students (in thousands)		Percent of undergraduate students taking online classes					
	Total, any distance education classes		Entire degree program through distance education\1\		Total, any distance education classes		Entire degree program through distance education\1\		Total, all students	Number taking any online classes	Total, any online classes		Exclusively online classes		Entire degree program is online\1\	
1	2		3		4		5		6	7	8		9		10	
Total	**15.6**	**(0.29)**	**4.9**	**(0.17)**	**20.6**	**(0.23)**	**3.8**	**(0.16)**	**23,055**	**7,368**	**32.0**	**(0.33)**	**8.4**	**(0.20)**	**6.5**	**(0.18)**
Sex																
Male	13.6	(0.31)	4.3	(0.19)	18.8	(0.31)	3.4	(0.16)	9,921	2,831	28.5	(0.45)	6.5	(0.25)	4.9	(0.24)
Female	17.0	(0.40)	5.4	(0.23)	21.9	(0.28)	4.2	(0.22)	13,135	4,537	34.5	(0.39)	9.8	(0.24)	7.7	(0.21)
Race/ethnicity																
White	16.2	(0.33)	5.0	(0.19)	21.9	(0.29)	3.9	(0.19)	13,345	4,472	33.5	(0.41)	9.0	(0.24)	6.8	(0.21)
Black	14.9	(0.59)	4.9	(0.37)	19.9	(0.66)	5.1	(0.48)	3,709	1,214	32.7	(0.70)	10.7	(0.57)	9.1	(0.56)
Hispanic	13.4	(0.54)	4.1	(0.27)	16.5	(0.53)	2.7	(0.23)	3,696	1,032	27.9	(0.57)	5.5	(0.29)	4.3	(0.24)
Asian	14.0	(0.92)	5.2	(0.58)	18.1	(0.86)	2.9	(0.40)	1,292	336	26.0	(1.06)	4.2	(0.45)	2.9	(0.35)
Pacific Islander	19.1	(2.37)	6.9	(1.69)	17.0	(1.89)	1.2 !	(0.53)	119	35	29.9	(3.18)	3.5 !	(1.33)	3.1 !	(1.29)
American Indian/Alaska Native	15.5	(1.85)	6.2	(1.41)	21.9	(2.41)	1.8 !	(0.55)	209	68	32.6	(2.56)	9.1	(1.60)	7.0	(1.43)
Two or more races	16.5	(1.33)	5.1	(1.16)	20.4	(1.08)	3.6	(0.86)	686	210	30.6	(1.48)	8.3	(0.93)	5.5	(0.69)
Age																
15 through 23	11.7	(0.26)	3.1	(0.13)	15.2	(0.22)	1.4	(0.09)	12,956	3,429	26.5	(0.36)	4.5	(0.16)	3.2	(0.13)
24 through 29	18.4	(0.46)	6.7	(0.41)	25.7	(0.56)	5.6	(0.45)	4,253	1,551	36.5	(0.67)	10.4	(0.43)	8.0	(0.41)
30 or older	22.4	(0.65)	8.3	(0.42)	30.0	(0.55)	9.0	(0.40)	5,846	2,388	40.9	(0.64)	15.6	(0.51)	13.0	(0.50)
Attendance status																
Exclusively full-time	12.7	(0.32)	3.8	(0.20)	16.7	(0.33)	3.2	(0.29)	11,632	3,346	28.8	(0.41)	7.6	(0.22)	6.5	(0.20)
Exclusively part-time	18.7	(0.46)	6.9	(0.32)	24.8	(0.39)	5.2	(0.22)	7,308	2,583	35.3	(0.62)	10.7	(0.42)	7.4	(0.38)
Mixed full-time and part-time	17.4	(0.53)	4.7	(0.23)	22.5	(0.42)	2.9	(0.20)	4,116	1,440	35.0	(0.62)	6.4	(0.31)	5.0	(0.28)
Undergraduate field of study																
Business/management	18.7	(0.58)	7.0	(0.43)	24.2	(0.55)	6.4	(0.45)	3,487	1,371	39.3	(0.75)	13.1	(0.48)	11.4	(0.45)
Computer/information science	19.5	(0.96)	7.2	(0.71)	26.9	(1.53)	8.4	(1.17)	942	385	40.8	(1.37)	11.6	(0.90)	9.8	(0.81)
Education	17.1	(0.89)	4.6	(0.45)	22.8	(0.81)	3.2	(0.33)	1,175	397	33.8	(1.17)	8.4	(0.71)	6.4	(0.59)
Engineering	12.1	(0.83)	3.3	(0.40)	16.1	(0.77)	2.3	(0.36)	1,087	252	23.2	(0.93)	3.8	(0.54)	2.3	(0.48)
Health	17.4	(0.48)	5.6	(0.30)	21.9	(0.60)	4.2	(0.33)	4,271	1,420	33.3	(0.67)	8.5	(0.48)	6.7	(0.43)
Humanities	14.0	(0.53)	3.9	(0.26)	19.7	(0.53)	2.6	(0.22)	3,817	1,175	30.8	(0.65)	5.8	(0.41)	4.1	(0.33)
Life sciences	11.0	(0.81)	2.7	(0.39)	15.8	(0.68)	1.8	(0.21)	1,448	386	26.7	(0.92)	4.5	(0.44)	3.3	(0.37)
Mathematics	12.8	(2.48)	3.8 !	(1.42)	15.1	(2.51)	‡	(†)	111	23	20.4	(3.02)	4.1 !	(1.32)	2.2 !	(1.05)
Physical sciences	9.8	(2.02)	0.9 !	(0.41)	12.8	(1.56)	0.3 !	(0.16)	207	46	22.1	(1.93)	1.5 !	(0.51)	1.2 !	(0.46)
Social/behavioral sciences	12.5	(0.63)	3.4	(0.33)	17.1	(0.68)	2.3	(0.31)	1,568	499	31.8	(0.93)	8.9	(0.59)	7.0	(0.48)
Vocational/technical	13.1	(0.96)	4.2	(0.60)	18.5	(1.26)	3.3	(0.50)	718	160	22.3	(1.54)	4.1	(0.77)	2.8	(0.59)
Undeclared/no major	15.0	(0.61)	4.6	(0.34)	20.5	(0.56)	3.1	(0.45)	1,232	340	27.6	(1.16)	12.0	(0.96)	5.2	(0.81)
Other	14.4	(0.68)	4.3	(0.29)	19.0	(0.69)	3.9	(0.38)	2,992	913	30.5	(0.83)	8.6	(0.53)	6.9	(0.50)
Had job during academic year\2\																
Yes	16.8	(0.34)	5.5	(0.22)	22.2	(0.25)	4.2	(0.16)	14,363	5,204	36.2	(0.42)	9.8	(0.26)	7.6	(0.24)
No	11.9	(0.32)	3.3	(0.17)	15.8	(0.37)	2.8	(0.25)	8,693	2,163	24.9	(0.42)	6.1	(0.25)	4.8	(0.20)
Dependency status																
Dependent	11.1	(0.24)	2.9	(0.13)	14.4	(0.24)	1.0	(0.08)	11,231	2,865	25.5	(0.36)	3.9	(0.17)	2.7	(0.12)
Independent, no dependents, not married\3\	15.6	(0.50)	5.1	(0.37)	23.6	(0.56)	4.8	(0.30)	4,233	1,421	33.6	(0.64)	8.9	(0.38)	6.7	(0.33)
Independent, no dependents, married	19.6	(0.78)	6.9	(0.52)	28.6	(0.96)	7.2	(0.84)	1,250	468	37.4	(1.22)	11.7	(0.75)	10.1	(0.72)
Independent, with dependents, not married\3\	20.5	(0.70)	6.9	(0.49)	25.3	(0.61)	7.4	(0.52)	3,504	1,340	38.2	(0.67)	12.7	(0.48)	10.7	(0.45)
Independent, with dependents, married	25.1	(0.79)	9.7	(0.53)	32.9	(0.71)	9.4	(0.51)	2,837	1,273	44.9	(0.92)	18.8	(0.77)	14.7	(0.75)
Control and level of institution																
Public	16.2	(0.35)	4.7	(0.18)	21.5	(0.25)	2.7	(0.11)	16,926	5,627	33.2	(0.39)	6.3	(0.21)	4.0	(0.16)
4-year	13.5	(0.54)	3.8	(0.23)	18.4	(0.41)	2.2	(0.19)	7,214	2,356	32.7	(0.51)	5.7	(0.27)	4.3	(0.24)
2-year	18.2	(0.43)	5.4	(0.25)	23.9	(0.33)	3.1	(0.16)	9,624	3,262	33.9	(0.54)	6.8	(0.31)	3.8	(0.24)
Less-than-2-year	11.8	(1.19)	3.0	(0.66)	8.1	(1.66)	1.9 !	(0.73)	87	10	11.3	(2.24)	7.7 !	(2.32)	‡	(†)
Private nonprofit	12.3	(0.79)	4.1	(0.46)	14.3	(0.43)	2.9	(0.23)	3,010	633	21.0	(0.85)	5.8	(0.61)	4.5	(0.57)
4-year	12.3	(0.83)	4.1	(0.48)	14.2	(0.44)	2.8	(0.23)	2,923	622	21.3	(0.87)	5.9	(0.63)	4.6	(0.59)
2-year	11.2	(2.20)	3.1 !	(1.11)	19.4	(2.30)	5.9	(1.02)	79	10	12.7	(3.26)	‡	(†)	0.5 !	(0.22)
Less-than-2-year	17.2	(2.63)	8.1	(1.35)	15.6 !	(4.69)	2.7	(0.66)	7	1	13.6 !	(5.68)	‡	(†)	‡	(†)
Private for-profit	15.3	(1.08)	8.6	(1.06)	21.7	(1.18)	12.8	(1.24)	3,120	1,108	35.5	(0.83)	22.2	(0.79)	21.6	(0.82)
4-year	26.3	(2.25)	15.6	(2.26)	29.1	(1.95)	19.1	(1.92)	1,943	1,030	53.0	(1.26)	34.1	(1.25)	33.3	(1.30)
2-year	12.1	(1.64)	6.3	(1.25)	17.6	(1.49)	8.0	(1.34)	707	60	8.4	(1.28)	3.8	(1.09)	2.9 !	(1.01)
Less-than-2-year	5.4	(0.26)	1.9	(0.13)	6.2	(0.40)	1.8	(0.28)	470	18	3.9	(0.77)	1.0 !	(0.34)	‡	(†)

†Not applicable.
‡Rounds to zero.
!Interpret data with caution. The coefficient of variation (CV) for this estimate is between 30 and 50 percent.
‡Reporting standards not met. Either there are too few cases for a reliable estimate or the coefficient of variation (CV) is 50 percent or greater.
\1\Excludes students not in a degree or certificate program.
\2\Excludes work-study/assistantships.
\3\Includes separated.
NOTE: In 2011-12, students were asked whether they took classes that were "taught only online" and, if so, whether their entire degree program was online. In 2003-04 and 2007-08, students were asked about distance education, which was defined in 2007-08 as "primarily delivered using live, interactive audio or videoconferencing, pre-recorded instructional videos, webcasts, CD-ROM, or DVD, or computer-based systems delivered over the Internet." The 2003-04 definition was very similar, with only minor differences in wording. In both years, distance education did not include correspondence courses. Data exclude Puerto Rico. Detail may not sum to totals because of rounding. Race categories exclude persons of Hispanic ethnicity.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2003-04, 2007-08, and 2011-12 National Postsecondary Student Aid Study (NPSAS:04, NPSAS:08, and NPSAS:12). (This table was prepared October 2014.)

APPENDIX B

Hello, my name is Sylvia Stefan. I am a doctoral student at Youngstown State University. I am interested in researching faculty experiences, perceptions, and opinions about teaching online classes. I hope you will consider taking a few minutes to share your experiences, perceptions and opinions about online education. This survey should take you no longer than 15 minutes to complete.

Participation is voluntary. Your identity will not be collected. Participants must be at least 18 years old. Submission of this survey implies your consent. If you have questions concerning this research, please feel free to contact me at sastefan@ysu.edu . You may also contact Dr. Karen H. Larwin at (330)941-2231 or khlarwin@ysu.edu. If you have any questions about your rights as a participant in this research project, you may contact the Office of Research at Youngstown State University at (330-941-2377) or YSUIRB@ysu.edu.

* 1. Gender

* 2. What is your age?

- ◯ 21-29
- ◯ 30-39
- ◯ 40-49
- ◯ 50-59
- ◯ 60 or older

* 3. Employment Status

* 4. Tenure Status

* 5. Number of years teaching.

* 6. Rank

- ◯ No rank
- ◯ Assistant Professor
- ◯ Associate Professor
- ◯ Full Professor
- ◯ Emeritus
- ◯ Visiting
- ◯ Other :

* 7. What discipline do you teach in?

* 8. How confident are you with computer technology?

- ◯ Not at all confident
- ◯ Somewhat confident.
- ◯ Confident.
- ◯ Very confident.

* 9. Have you ever taught an online course?

- ◯ No
- ◯ Yes

* 10. Are you currently teaching an online course?

- ◯ No
- ◯ Yes

* 11. Are you required to teach online courses?

- ◯ No
- ◯ Yes

* 12. Have you ever developed an online course?

- ◯ No
- ◯ Yes

* 13. Are you currently developing an online course?

- ◯ No
- ◯ Yes

* 14. Does your institution contract with outside agencies to develop online courses?

- ◯ No
- ◯ Yes
- ◯ I don't know

* 15. Does your institution contract online course delivery from outside agencies?

- ◯ No
- ◯ Yes
- ◯ I don't know.

* 16. Describe your level of expertise with each of the following:

	No experience	Some experience	A lot of experience	Expert
Online education.	◯	◯	◯	◯
Teaching an online class.	◯	◯	◯	◯
Taking an online class.	◯	◯	◯	◯
Designing an online class.	◯	◯	◯	◯
Modifying an online class.	◯	◯	◯	◯

* 17. Please indicate how much you feel the following are barriers to online teaching:

	Not a barrier	Somewhat a barrier	A barrier	A significant barrier	N/A
Increased workload	◯	◯	◯	◯	◯
Time commitment	◯	◯	◯	◯	◯
Lack of personal relationship with students	◯	◯	◯	◯	◯
Frequent technology failure	◯	◯	◯	◯	◯
Inadequate compensation for online instruction	◯	◯	◯	◯	◯
Inadequate technology support	◯	◯	◯	◯	◯
Inadequate time for grading and feedback	◯	◯	◯	◯	◯

* 18. Please indicate how much you feel the following are barriers to online teaching:

	Not a barrier	Somewhat a barrier	A barrier	A significant barrier	N/A
Lack of social interaction within the class	○	○	○	○	○
Inadequate instructor training	○	○	○	○	○
Impersonal	○	○	○	○	○
Lack of control over student cheating/plagiarism	○	○	○	○	○
Online work not valued for promotion and/or tenure	○	○	○	○	○
Rapidly changing software of delivery system	○	○	○	○	○
Lack of visual cues from students	○	○	○	○	○
Lack of enrollment limits	○	○	○	○	○

* 19. Please indicate how much you feel the following are barriers to online teaching:

	Not a barrier	Somewhat a barrier	A barrier	A significant barrier	N/A
Lack of policies or standards for online courses	○	○	○	○	○
Lack of DSL/fast access for students	○	○	○	○	○
Inadequate pedagogical skills for online teaching	○	○	○	○	○
Lack of faculty involvement in course decision making	○	○	○	○	○
Lack of quality of course	○	○	○	○	○
Personal anxiety/fear with technology/online teaching	○	○	○	○	○
Students need more discipline	○	○	○	○	○
Lower retention rates	○	○	○	○	○

Other barriers in online education:

* 20. How do online classes compare to face-to-face in the following activities:

	A lot less	Somewhat less	About the same	Somewhat more	A lot more
Effort to develop	○	○	○	○	○
Effort to teach	○	○	○	○	○
Time spent grading	○	○	○	○	○
Time helping students	○	○	○	○	○
Time advising student	○	○	○	○	○
Time responding to students	○	○	○	○	○
The enrollment cap	○	○	○	○	○
Speed in responding to online student questions	○	○	○	○	○
Speed in responding to online student emails	○	○	○	○	○

Other comparisons?

* 21. What is your opinion about the learning outcomes in online classes?

- ○ Inferior to face-to-face
- ○ Somewhat inferior to face-to-face
- ○ The same as face-to-face
- ○ Somewhat superior to face-to-face
- ○ Superior to face-to-face

* 22. Have you recommended an online course to a student or advisee?

- ○ No
- ○ Yes

* 23. Why would you teach an online class?

	Not important	Somewhat Important	Important
Meet student needs for flexible access	○	○	○
Best way to reach particular students	○	○	○
For personal or professional growth	○	○	○
It is what students want	○	○	○
For pedagogical advantages	○	○	○
To earn additional income	○	○	○
To help increase enrollment	○	○	○
Faculty are required to teach online	○	○	○

24. Please rate the level of institutional support available to you for online teaching.

	Below average	Average	Above average	N/A
Technology infrastructure	○	○	○	○
Support for online development	○	○	○	○
Support for online delivery	○	○	○	○
Support for online students	○	○	○	○
Policy on intellectual property	○	○	○	○
Incentives for developing online courses	○	○	○	○
Incentives for online delivery	○	○	○	○

25. What types of courses do you think are most appropriate for online delivery?

26. What types of courses do you think are not appropriate for online delivery?

27. What would help you to be more motivated to teach online courses?

28. Additional comments about online course delivery:

Many items included in this survey were constructed from the research of Allen, I.E. & Seaman, J. (2008). Staying The Courses: Online Education in the United States,2008, Needham, MA: Sloan Consortium and Lloyd, S.A, Byrne, M.M., & McCoy, T.S. (2012). Faculty Perceived Barriers of Online Education, Journal of Online Learning and Teaching, 8(1).

APPENDIX C

April 15, 2016

Dr. Karen Larwin, Principal Investigator
Ms. Silvia Stefan, Co-investigator
Department of Educational Foundations, Research, Technology and Leadership
UNIVERSITY

RE: HSRC Protocol Number: 167-2016
Title: The Differences of Faculty Voices: Views and Experiences with Online Learning

Dear Dr. Larwin and Ms. Stefan:

The Institutional Review Board has reviewed the abovementioned protocol and determined that it is exempt from full committee review based on a DHHS Category 3 exemption.

Any changes in your research activity should be promptly reported to the Institutional Review Board and may not be initiated without IRB approval except where necessary to eliminate hazard to human subjects. Any unanticipated problems involving risks to subjects should also be promptly reported to the IRB.

The IRB would like to extend its best wishes to you in the conduct of this study.

Sincerely,

Mr. Michael A. Hripko
Associate Vice President for Research
Authorized Institutional Official

MAH:cc

c: Dr. Charles Vergon, Chair
Department of Educational Foundations, Research, Technology and Leadership