PROFESSORS' PERCEPTION OF ASYNCHRONOUS ONLINE DELIVERY PRE AND POST THE ONSET OF THE COVID-19 PANDEMIC

by

John L. Neal

This dissertation is submitted in partial fulfillment of the requirements for the degree of

Doctor of Education

Ferris State University

September 2022

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Has been approved

September 2022

APPROVED:

Shawn Wilson, EdD
Committee Chair

LaMarcus Howard, PhD
Committee Member

Marcus Bennett, EdD
Committee Member

Dissertation Committee

ACCEPTED:

Sandra J Balkema, PhD, Dissertation Director
Community College Leadership Program

ABSTRACT

During the COVID-19 pandemic, many post-secondary institutions shifted to online teaching to continue student learning. Faculty unfamiliar with online teaching were expected to develop and teach asynchronous courses expeditiously which some believed would affect the integrity of the modality. A phenomenological approach was used to interview eight community college and university faculty who prior to the pandemic had not taught an asynchronous online course. The study examined faculty perceptions of asynchronous online teaching prior to the COVID-19 pandemic and their perceptions of the modality after their institutions required them to do so. Results showed that faculty perceptions of asynchronous course delivery before teaching the course were based largely on their prior assumptions and experiences; their perception of the student experience during asynchronous course delivery; their preference for teaching in a traditional classroom setting; and the perceived advantages and disadvantages of teaching asynchronously.

Faculty perceptions after teaching asynchronously varied. Positive perceptions were influenced by conclusions drawn from the faculty's collective online course development and delivery experience; the perceived advantages and benefits received by their online students; and the perceived professional and personal benefits associated with teaching asynchronously. Each participant's negative perceptions were influenced by challenges faculty encountered during their asynchronous course development and delivery experience such as students needing additional academic and technological support.

Key Words: asynchronous course delivery, Technology Acceptance Model, faculty perceptions, remote learning, online learning, distance learning

DEDICATION

This dissertation is dedicated to God the Father, God the Son, and God the Holy Spirit. Without Him nothing is possible. To my wife Tangie, my daughter Angel, and my sons John and James. They have been a constant source of support and encouragement throughout my academic career. I am thankful for having them in my life. This work is also dedicated to my parents, Addie and John Neal Sr., who because of their unconditional love for me, I've never wanted to make them ashamed. Finally, to my beloved relatives, living or deceased, who played a role in making me who I am today.

ACKNOWLEDGMENTS

I would like to thank the following people for helping with the completion of this doctoral degree. The faculty members who sacrificed their time to help me understand online learning from their perspectives. Friends and family at Ferris State University, Capital Missionary Baptist Church, Delta College, Louisiana State University, Hopevale Church, Jack and Jill of America Incorporated (Baton Rouge and Great Lakes Bay Chapters), Men of Delta, Alpha Kappa Alpha Sorority (Midland and Saginaw Michigan Chapters) and Bridging the Gap organization. Also, I would like to thank the residents of the great state of Michigan and Delta College students at the Saginaw Correctional Facility.

A special acknowledgement to my dissertation committee members: Shawn Wilson, LaMarcus Howard, and Marcus Bennett.

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CHAPTER ONE: INTRODUCTION TO THE STUDY

INTRODUCTION

Colleges and universities occupy each state in North America (Duffin, 2022). Public universities have accounted for 63% of bachelor's degrees and 53% of graduate degrees and certificates in various fields such as education, science, and agriculture (Snyder et al., 2016). However, few things have influenced the world of higher education to the extent of online learning. Its concept, design, and innovation have helped traditional and non-traditional college students alike attain a college level certificate or degree. And, as technology becomes more advanced, colleges continue to devise more innovative ways to educate outside the walls of the institution.

ONLINE LEARNING

Online learning can be considered as educational courses where part or all instruction uses some form of academic technology synchronously or asynchronously to deliver learning to students. Synchronous learning requires students to participate in contemporaneous instruction through media such as computer messaging or a videoconference at set times during the learning experience (Malik et al., 2017). Asynchronous learning can be implemented using a variety of media such as email, recorded videos, and discussion boards (Malik et al., 2017). This allows students to log into an online learning environment at any time without live participation. Professors' perception of asynchronous delivery is the focus of this research and is defined using the aforementioned description.

Online courses often use learning management systems in which faculty can upload content that students can then access (videos, PowerPoint presentations, textbook/written materials, interactive media, and third-party videos), facilitate group discussions (discussion boards), assign course work (written assignments, exams/quizzes, Q&A discussions), and report grades (Bastrikin, 2020). Examples of learning management systems include Blackboard, Canvas, Desire2Learn, and Moodle (Bastrikin, 2020).

According to Bastrikin (2020), the most common forms of online learning formats are:

- Blended or Hybrid: 25% – 50% of assignments, instruction, and discussion is online (asynchronous or synchronous).
- Emergency Remote Teaching: Moving from a hybrid or face-to-face format to fully online in response to situations in which students or faculty are not permitted to campus (asynchronous or synchronous).
- Face-to-Face Web Enabled: Faculty and students engage virtually using video chat platforms and teleconferencing (synchronous only).
- Fully Online or 100% Online: All interaction takes place online—testing, assignments, lectures, and discussions (asynchronous only).
- Simultaneous Teaching: Faculty teaches in-person and online at the same time; students can attend a livestream lecture virtually or face-to-face (synchronous).
- Massive Open Online Courses (MOOCs): Self-paced, live, or pre-recorded content available to students with 24-hour access. Courses are often free and open to the public (asynchronous or synchronous).

Whether synchronous or asynchronous, online delivery in higher education is often viewed differently among faculty and administration. Most faculty members welcome the opportunity to teach online courses when involved in the development and implementation phases (King & Alperstein, 2014). A survey involving higher education administrative leadership revealed that 70% of chief academic officers agreed that online education was "critical to their institution's long-term strategy" (King & Alperstein, 2014, p. 25).

Institutions of higher learning that choose to move forward in the area of online education have the challenging task of designing quality academic online programs. Scoppio and Luyt (2017) suggest the task is worth the challenge. They believe an online model developed upon a common framework of design, pedagogy, and consistency is very effective in providing quality online education to the masses. King and Alperstein (2014) agree, explaining that colleges and universities must investigate best practices for delivering online education. The researchers also believe institutions of higher learning should determine what part online education will play in its strategic plan and organizational mission.

THE COVID-19 PANDEMIC

In March of 2020, the World Health Organization declared coronavirus, the disease that causes COVID-19, a pandemic. In a short time, this virus left an unmistakable impact on the world we once knew, especially in the world of higher education. COVID-19 is primarily spread from an infected person to a non-infected person causing symptoms such as difficulty breathing, fever, and loss of taste and smell ("Coronavirus Disease 2019 (COVID-19)," 2020). In more serious cases, difficulty breathing can lead to respiratory issues causing death. The threat of infection and mortality led more than 1,300 colleges and universities to forgo all face-to-face classes or shift to online instruction by mid-March 2020 (Smalley, 2021).

COVID-19'S INITIAL IMPACT ON HIGHER EDUCATION

COVID-19's infiltration into the world of higher education led colleges and universities across the United States to focus on student safety as paramount to the collegiate experience. Although campus-based postsecondary institutions took necessary precautions, students who decided to return to campus risked their health and the health of others. As cases continued to

increase, university leaders were torn between the financial ramifications of having fewer students on campus and the potential risk of the virus being spread.

The Student Experience

To reduce the spread of the COVID-19 virus, many higher education institutions began implementing various strategies to keep students moving forward on their academic journey, but in many ways these strategies disrupted the traditional student experience. Some colleges canceled spring break and suspended study abroad programs, while others reduced admission testing and limited campus visits, resulting in over 300 higher education institutions prolonging admission deadlines and waiving ACT/SAT requirements (Smalley, 2021). For many higher education institutions, contact tracing and increased COVID-19 testing became part of their strategic plan to get students back on campus. In addition, the closing of dining halls and college housing combined with the cancellation of college sports and other campus events deprived students of the camaraderie associated with college life (Smalley, 2021).

Student Enrollment

Since the COVID-19 pandemic, most colleges have seen declines in student enrollment numbers. According to research conducted by the National Student Clearinghouse Research Center, between fall 2019 and fall 2021 undergraduate enrollment at post-secondary institutions overall decreased by 7.8% ("COVID-19: Stay informed with the latest enrollment information," 2021). Enrollment decreases varied by institutional type. Between 2019–2021, public four-year and two-year institutions saw undergraduate enrollment declines of 4% and 14% respectively. During that same timeframe, undergraduate enrollment for four-year private non-profit institutions decreased by 3%, while four-year private for-profit institutions saw declines of nearly 11%. Freshman enrollment decreased by 13% across all higher institution sectors

("COVID-19: Stay informed with the latest enrollment information," 2021). By the fall of 2020, international student enrollment overall was down 16%, while new international student enrollment dropped 43% (Smalley, 2021).

Institutional Cost

The unexpected closure of college campuses brought about financial challenges for most institutions of higher education. Increased technology expenditures, student refunds for room and board, and augmented cleaning expenses were just some of the unforeseen costs associated with the impact of the COVID-19 pandemic. Campus closures also resulted in declining enrollments. Due to decreases in international student enrollment alone, it is estimated that institutions overall lost more than $3 billion in revenue during fall of 2020 (Smalley, 2021). For some colleges and universities, a lack of consistent revenue and a reduction in state funding led to employee pay cuts, hiring holds, and faculty layoffs. Lastly, due to the decision to cancel college sporting events, the NCAA cut funding for tournaments to Division I schools by up to $375 million (Smalley, 2021).

Alternative Forms of Instruction

With the introduction of the COVID-19 pandemic, colleges and universities were mandated to create a safe educational environment while providing an exceptional student experience. Over 1,000 institutions of higher learning did this in the form of online learning ("Higher Education Response to Coronavirus (COVID-19)," 2020). In fact, 44% of higher education institutions created fully online instruction, while another 21% implemented a hybrid model of instruction (Smalley, 2021)

Beloit College in Wisconsin implemented a module-based semester, reducing courses to seven-week terms (Wong, 2020). Students were allowed only two online courses per module.

The college believed this method allows greater flexibility to move from remote to on-campus with limited interruption to coursework. Michigan Technological University provided online learning in the form of lectures while courses involving labs continued to meet face-to-face (Wong, 2020). Alaska Pacific University organized studios, classrooms, and group areas to allow for social distancing while holding online courses for students who needed isolation ("Alaska Pacific University Releases Campus Reopening Plan – Alaska Pacific University," 2020). Some colleges, such as Colorado State University, combined virtual learning with Saturday courses to meet the six-foot social distance requirement (Wong, 2020). Also, Colorado State University continued person-to-person campus-based instruction focusing on first-year students and courses requiring labs, while classes with over 99 students were taught virtually using both synchronous and asynchronous communication ("COVID-19 Recovery Colorado State University," 2020). Also, to help students gain consistent access to an internet connection, some universities allowed limited visits to the campus library or dispersed mobile hotspots to keep students online (Smalley, 2021).

Emergency Remote Teaching

Although online education was one of the preferred methods of keeping students and faculty safe throughout the pandemic, the rate at which institutions had to offer online courses could impact faculties' future perception of online education. For instance, in the spring of 2020 when the effects of COVID-19 prompted conversations of campus and technologically assisted learning, decisions had to be made as to how face-to-face courses could be offered online before the summer and fall semesters. To meet the increased demand for online courses in a short period of time, many institutions resorted to Emergency Remote Teaching (ERT) (Hodges et al., Bond, 2020).

Emergency Remote Teaching is in some ways antagonistic to effective online education. As a group of researchers explained, exceptional online education is more than the transmission of information using communication technology but involves the planning and customization of online content using a proven model or template for design and development (Hodges et al., 2020). They believe the design process—not just the method of delivery—affects course quality. Emergency remote teaching forgoes the implementation of a robust online teaching system. It is meant to provide quick and temporary access to instructional support that is reliable and easy to implement during an emergency or crisis (Hodges et al., 2020). The aggressive nature in which colleges and universities have implemented ERT and its possible negative impact on faculty attitudes toward online education should be discussed (Lederman, 2020).

FACULTY PERCEPTIONS OF ONLINE EDUCATION

Although most faculty support online education (Broussard & Wilson, 2018; Pundak & Dvir, 2014; Smidt et al., 2014), some do not (Allen et al., 2016). Prior research revealed that the faculty acceptance rate of online education is roughly 30% (Ruth, 2018), while other studies report faculty prejudice toward traditional face-to-face education (Ciabocchi et al., 2016; Dhilla, 2017; Karaduman & Mencet, 2013). When the development and implementation of online programs are ordered by the administration, faculty may not be as enthusiastic to add online classes to the extensive list of required duties such as continued research and committee responsibilities (Trammell & LaForge, 2017). Also, most online faculty prefer administrative, pedagogical, and technological support before agreeing to teach online (Martin et al., 2019). Consequently, post-secondary leadership would do well to promote practices and policies that create enthusiasm regarding online education, because faculty motivation and emotions play a significant role in predicting their attitudes toward the online education experience (Bunk et al.,

2015). Therefore, creating an atmosphere of excitement and positivity along with external incentives could decrease faculty reluctance to develop and teach online courses (Bunk et al., 2015).

Online education has in some ways changed faculty members' primary roles from lecturers to facilitators. This change can be difficult as most faculty have little to no formal pedagogical training, causing them to use their experiences as students and in-person faculty as the basis for online teaching (Markova, 2014; Martin et al., 2019; Martinho et al., 2021). It is during the initial stages of the transition to online delivery that the difficulties can become most evident (Pundak & Dvir, 2014).

In an online environment, faculty are expected to answer emails expeditiously, upload course content promptly, and find creative ways to engage students who are not physically in their presence. In addition, professors with no online teaching experience are also required to change their teaching process while navigating the institution's learning management system (Trammell & LaForge, 2017). Some professors have concerns regarding course conversion to an online format and questions regarding anonymity (Smidt et al., 2014) while others perceive online programs as being of lower quality and more costly (Mitchell et al., 2015) compared to a traditional college education. In many cases, these factors increase faculty workload and take away from the primary functions of teaching and research (Mitchell et al., 2015). Some professors view these additions as an intrusion into their private lives that could potentially lead to an avoidance of online teaching (Pundak & Dvir, 2014).

It is reported that many professors lack confidence in using advanced technology and are less proficient in that area as compared to the students they teach (Pundak & Dvir, 2014). In terms of learning management systems, to meet the basic responsibilities of teaching online,

faculty must ascertain the technological skills to navigate the systems while simultaneously learning its design capabilities (Markova, 2014). Because of higher education's response to COVID-19 through emergency remote teaching, faculty who otherwise defer teaching online were required to rely on instructional technology in which they may have been unfamiliar. In some cases, colleges and universities may not possess the resources and training necessary to support faculty as they attempt to build and teach online content, especially in underfunded institutions and in rural locations (Pundak & Dvir, 2014). The lack of instructor confidence, speed, and intensity in which courses were developed and a lack of institutional resources and support could become an issue for faculty new to online education during the COVID-19 pandemic (Lederman, 2020).

STATEMENT OF THE RESEARCH PROBLEM

Due to the COVID-19 pandemic, higher education has had to adapt by providing online courses to students who were no longer allowed on college campuses (Smalley, 2021). As a result, most institutions of higher learning implemented emergency remote teaching as a means to develop and deliver online course content expeditiously (Lederman, 2020). This creates a problem as researchers believe the mandated reaction (Trammell & LaForge, 2017) combined with the aggressiveness and speed in which the courses were created would have a negative impact on how professors view online teaching (Hodges et al., 2020; Lederman, 2020). Hodges et al., (2020) and Ciabocchi et al., (2016) believe the quality of the online course content may be affected as well.

PURPOSE OF THE STUDY

The purpose of this study was to identify and understand barriers that prevent college faculty from engaging in asynchronous online delivery and their perception of this delivery method after mandatory participation was implemented due to the COVID-19 pandemic. Some studies suggest that professors' attitudes regarding online course delivery are determined by various factors. Many institutions lack the financial and human capital to support professors' development of online courses (Lederman, 2020), while many faculty members admit to not being as proficient with academic technology as their students (Pundak & Dvir, 2014). Also, many faculty members view online course delivery as extra work in addition to their traditional role (Pundak & Dvir, 2014), especially when their institutional leaders require them to add it to their workload (Trammell & LaForge, 2017). Markova (2014) believed "many of the organizational changes that are required to facilitate efficient content development for optimum instructional efficiency and effectiveness threaten the traditional territorial boundaries that separated faculty and administration" (p. 5). Further research concludes that faculty support and approval are key for the buy-in of academic initiatives, can promote institutional change, and are crucial for student learning and gratification (Baran & Correia, 2014; Esterhuizen et al., 2013; Ragan & Schroeder, 2014). Due to the enormous benefit advanced academic technology has for faculty and students in higher education, understanding professors' attitudes and hesitancies to adopt web-based teaching warrants discussion (Bunk et al., 2015).

THEORETICAL FRAMEWORK

In 1989, Davis created a predictive model he believed explained factors that influenced technological acceptance. Originally used to describe an individual's reasoning for using new technologies within organizations, the Technology Acceptance Model (TAM) revealed perceived

usefulness (PU) and perceived ease of use (PEU) as the foundational constructs of technological adoption (Davis, 1989). In his research, Davis defined PU as the point at which an individual is convinced that the technology being used will improve job performance. PEU is described as the degree of effort an individual must utilize to learn new technology.

To provide further detail regarding factors that influence the usage of new technology, Venkatesh and Davis (2000) developed a second version of the Technology Acceptance Model known as the TAM2. The TAM2 reveals seven additional factors (mentioned more in Chapter Two) that affect an individual's intention to use technology and how often it is used. Using this latest version of the Technology Acceptance Model as a theoretical framework, this researcher's inquiry expands upon previous studies that have investigated perceived factors that create barriers to teaching online in higher education (Bunk et al., 2015; Horvitz et al., 2015; Jaschik & Lederman, 2014; Mansbach & Austin, 2018; Walters et al., 2017). Upon further examination of the TAM2 model, Wingo et al. (2017) concluded the TAM2 could be used as insight into faculties' perceptions of online teaching. Therefore, factors uncovered in the TAM2 (Venkatesh & Davis, 2000) were compared to the findings of this research to determine if similar factors impact faculties' perception of online course delivery before and after the COVID-19 pandemic.

RESEARCH QUESTIONS

The current study explores the following research questions:

- What perceived factors/barriers prevent faculty members' engagement in an asynchronous online course delivery?
- How did the emergency move to online during the COVID-19 pandemic affect faculty members' perception of an asynchronous online course delivery?

DEFINITION OF TERMS

Asynchronous – online courses in which students can access information and demonstrate learning on their own time, unrestrained from a set meeting time (Bastrikin, 2020).

Distance Learning – option to enroll and complete college courses remotely ("What is a Distance Learning Course? | Study.com," n.d.)

E-learning – course or educational learning experience implemented electronically. These courses are often interactive between student and instructor and can be in real-time or pre-recorded ("What is eLearning?" 2020).

Faculty – adjunct or full-time personnel at an institution of higher education whose primary responsibilities include research, public service and/or instruction.

File Transfer Protocol (FTP) – computer program allowing large amounts of data to be transferred and received from user to user (Taktak & Blockmon, 2021)

Learning Management System – software often used by organizations to administer training or educational subject matter ("Learning Management System," 2022)

Open Educational Resources – teaching and educational materials found in the public domain, free to use, and shared between users. OER's can include free online courses and online textbooks (Sparks, 2017)

Pedagogy – the concept, science, or profession of teaching or instructing (Merriam-Webster, n.d.)

Synchronous – online courses conducted in real-time through scheduled or non-scheduled interaction (Bastrikin, 2020).

SUMMARY AND ORGANIZATION OF THE STUDY

Chapter One introduces the reader to online learning, the several types of online learning, and learning management systems. The chapter also reveals the early impact the COVID-19 pandemic has had on colleges and universities and how higher education adapted in response to the crisis in terms of emergency remote teaching. Lastly, the chapter explores how the mandatory and immediate need to teach remotely could impact faculties' perception of online teaching.

Chapter Two presents a review of the literature relevant to this research study. The literature review discusses factors associated with faculty views of online learning using an extended version of the original Technology Acceptance Model (Davis, 1989; Venkatesh & Davis, 2000) as a theoretical framework. The chapter also describes the history of online education, how it has advanced over the years, and the benefits and challenges faced by faculty and students who teach and learn in an online environment.

Chapter Three provides details regarding the methodology used in conducting the research. Participants include one faculty member from a four-year public university and seven faculty members from two-year community colleges who, before the pandemic, had not taught a college-level course using an asynchronous mode of delivery.

The extended version of the Technology Acceptance Model (TAM2) was used as a research tool to determine whether the barriers that impact technology use introduced in that model, mirror barriers experienced by participants in this study. Also, a qualitative phenomenological interviewing approach is used to identify and understand barriers that prevent college faculty from engaging in asynchronous online delivery and their perception of this delivery method after mandatory participation was implemented due to the COVID-19 pandemic. Phenomenology is built upon the assumption that how we view the world is based

upon one's lived experiences. This methodology also believes there is an organization and meaning to a person's shared experience that can be narrated (Marshall & Rossman, 2015).

Chapter Four contains the results and data analysis from faculty interviews conducted within the study. The focus of these findings was centered around the following research questions: (1) What factors/barriers prevent faculty members from engaging in an asynchronous online delivery? (2) How did the emergency move to online after COVID-19 affect faculty members' perception about delivering an asynchronous online course. Additionally, a thematic analysis was conducted to determine repeated issues, concepts, and thought patterns.

Chapter Five provides a discussion of the outcome of the research, how it adds to knowledge in the field of education, and suggestions for future research. Lastly, this chapter ends with a general conclusion of the study.

CHAPTER TWO: LITERATURE REVIEW

INTRODUCTION

Before online learning, distance learning played a crucial role in educating students without the physical presence of an instructor. Before the internet, organizations and academic institutions provided distance education by way of television, radio, and mail correspondence. The creation of the internet and advanced technology offer learners' access to higher education institutions around the globe via the World Wide Web, known as online education. Due to the impact emergency remote teaching has had on faculty at institutions of higher learning after the COVID-19 pandemic, the following literature review explores the advantages and challenges associated with online learning and the factors that influence individual acceptance of newly introduced technology.

THE HISTORY OF ONLINE EDUCATION

CORRESPONDENCE COURSE DELIVERY

The concept of distance learning began in 1728, when a man by the name of Caleb Phillips offered to teach shorthand to interested students by sending weekly lessons to their residence through the mail (Ferrer, 2019), known as correspondence education. Following in Phillips' footsteps, Isaac Pitman began teaching shorthand via mail in 1840 by mailing postcards to students directing them to write Bible scriptures in shorthand on them and then mailing them back for correction (Kentnor, 2015).

Correspondence course delivery became more organized some 30 years later. Founded by Anna Eliot Tickor, the Society to Encourage Studies at Home became the first correspondence school in the United States in 1873. That same year, Illinois Wesleyan College became the first academic institution to offer degrees using this method (Kentnor, 2015). In 1906, the International Correspondence Schools became a pioneer within the industry enrolling as many as 900,000 students (Craig, 2015). Initially, these types of distance learning programs were seen by traditional universities as nonessential, unprofitable and often and often sidelined as extension or continuing education programs.

Distance Learning: Radio

As devices became more advanced, colleges began to use more innovative ways to educate the community outside the walls of the institution. In 1919, professors at the University of Wisconsin founded the first radio station used for educational broadcasting (Kentnor, 2015). By 1922, Pennsylvania State University became one of 73 institutions to offer classes by way of radio, prompting more than 200 institutions of higher learning to follow PSU's example by 1925 (King & Alperstein, 2014).

After the Great Depression of 1929, the number of educational institutions using radio began to dwindle. As a result, the National Broadcasting Company started the Radio Corporation of America Educational Hour to introduce classical music to children (Kentnor, 2015). Two years later, the Rockefeller Foundation and the Carnegie Foundation founded the National Advisory Council for Radio in Education. Later that same year, the Institute for Education by Radio began to use broadcasting exclusively for education purposes throughout classrooms in the state of Ohio (Kentnor, 2015).

Distance Learning: Television

Although the idea of using visual media for education started before the use of the radio, the concept of using television broadcasting for educational purposes did manifest until the 1930s when the University of Iowa became the first educational institution to do so (Kentnor, 2015). However, it was not until 1950 that educational institutions began to view television as a legitimate method to promote instruction and learning. As a result, in 1952, the Federal Communications Commission reserved more than 242 channels for educational institutions to instruct the public. By 1966, that number had more than doubled, with one-third of the channels licensed to colleges and universities (Kentnor, 2015). Consequently, Stanford University initiated the Stanford Instruction Television Network in an effort to educate part-time engineering students via television (Dumbauld, 2014). However, although the use of television for the purpose of education had become more commonplace, televised courses for distance learning were usually of low quality and unengaging (Kentnor, 2015).

Distance Learning: Computers

Distance learning using computers made its debut in 1960 when the PLATO (Programmed Logic for Automatic Teaching Operations) learning system was created to provide computer-assisted instruction. Although it did not fully integrate into higher education as some had hoped, it was the perfect springboard for more advanced computer-based educational programs (King & Alperstein, 2014). In 1976, Coastline Community College became the first operating institution of higher learning without a physical land-based facility (Miller, 2014). Considered a virtual college, it used a combination of television, telephone, cassette tapes, records, and radio to offer degree programs via what was known then as telecourses. During the

1980s, corporate America began to use computer-based programs to educate and train employees (Kentnor, 2015).

After the introduction of the internet, distance learning began to flourish. The internet (online) concept was able to provide tools previous distance programs could not: student interaction with faculty, content, and other learners (Craig, 2015). During the 1980s, using basic internet services such as FTPs (file transfer protocol) and Telnet, Nova Southeastern University implemented online degree programs in the areas of Computer Information Systems and Computer Science (King & Alperstein, 2014). Educational online programs became more prevalent in the early 1990s. As a result, in 1992 the Sloan Foundation founded the Asynchronous Learning Networks to develop alternative educational solutions for those unable to participate in a traditional college learning environment (Kentnor, 2015). That same year, the EUN (Electronic University Network) was formed to assist colleges and universities in locating students and delivering services via the internet and with backing from its investors, collaborated with America Online to offer one of the first PhD online programs (Dumbauld, 2014). During that same time, for-profit universities realized that online learning could allow higher education to become more accessible to a growing population of Americans that had obtained some college credit but had no degree or certificate (Fain, 2019). As a result, the University of Phoenix, using CompuServe, an online service provider, became one of the first for-profit institutions to offer courses over the internet (Kentnor, 2015). By 2001, the University of Phoenix student enrollment totaled 29,000. Other for-profit institutions such as Western Governors University was founded in 1998 in an effort to make online courses more accessible and affordable. In the fall of that same year, a conglomerate of nearly 100 colleges and universities founded the California Virtual University, offering more than 1,600 online courses to resident and non-resident students.

Consequently, some non-profit institutions began to feel the pressure of competition. As a result, New York University became the first non-profit to form a for-profit online subsidiary known as NYU Online (Kentnor, 2015). Although non-profit institutions' participation in online learning began to increase after the late 1990s, they would have difficulty keeping pace with their for-profit online counterparts.

THE BIRTH OF FREE ONLINE PROGRAMS

Not all institutions of higher learning are concerned with earning profits. In 2009, Shai Reshef, an Israeli entrepreneur, founded the University of the People, a tuition-free, non-profit, accredited online university (Who we are – In brief, 2018). The university's mission is to provide two-year associate degrees and four-year bachelor's degrees in computer science, business administration, and health science to underserved students throughout the world. The organization's leadership believes "access to higher education can promote world peace and global economic development" (Who we are – In brief, 2018, para. 2). The university offers tuition-free education to more than 10,000 students from over 200 countries and territories due to the nearly 6,000 professional volunteers who offer their skills and expertise. Financial support includes donations from such organizations as the Bill and Melinda Gates Foundation and numerous contributions from supporters all around the globe (Who we are – In brief, 2018). The University of the People uses a combination of open educational resources, open-source technology, and peer-to-peer learning as part of its online strategy to keep tuition costs non-existent. However, students are requested to pay a modest assessment fee of $100 at the end of each course, which the institution provides scholarships to help each student pay.

Another free tuition university, Princess Diana Memorial Foundation University (PDMFU), a non-accredited institution, believes higher education should be accessible to all.

Founded upon the liberal progressive movement, the university stands on the principle that liberal learning involves a love of learning, communication, and disciplined reasoning. Using focused programs, PDMFU specializes in conveying skills to administrators, managers, students, officers, and officials with minimal training ("PDMFU – A Note to The Students," 2020). Although considered a free online college, students are required to make a specific donation to receive documentation such as grades and diplomas ("Free Online Colleges | Tuition-Free Online College Courses," 2020).

In 2011, Massive Open Online Courses (MOOCs) offered students another option to take college courses with little or no cost to the public ("About MOOCs," 2018). Most often, the implementation of these courses is a collaboration between educational institutions and third-party platforms. These partnerships provide students with courses developed and taught by credentialed professors. A key selling point is that students can select courses from most educational institutions across the United States, including Harvard, Yale, and Princeton ("About MOOCs," 2018). MOOCs provide students with several credentials, including online bachelor's, master's, and doctoral degrees, as well as continuing education and professional certifications ("About MOOCs," 2018). Two of the largest MOOC platforms edX and Coursera boast offering over 1,300 courses to more than 10 million learners worldwide (MyLeanMBA, 2017).

With advanced technology and the explosion of the internet, online learning continues to impact higher education in terms of student enrollment. In 2009 it was estimated that 5.5 million students had taken at least one course online in their lifetime (Kolowich, 2014). By 2010, 70% of students seeking online degrees were enrolled in higher education institutions (Craig, 2015). In 2018, nearly seven million students were enrolled at a degree-granting college or university taking at least one distance education course ("Fast Facts: Distance learning," 2018). Compared

to 2019, undergraduate students enrolled in at least one online course was 97% higher during the 2020 fall semester. In addition, undergraduate students taking all of their courses online in 2019 was 186% higher in 2020 (National Center for Education, 2022). The enrollment increases were a result of the growth in emergency remote teaching due to the COVID-19 pandemic.

BENEFITS OF ONLINE LEARNING

COST

The cost of college tuition has exponentially increased over the years with costs growing as much as 538% from 1985 to 2013 (King & Alperstein, 2014). From 2017 to 2021, tuition and fees for private, out-of-state, and in-state public national institutions have increased by $6,877, $3,364, and $1,496 respectively (Boyington et al., 2021). King and Alperstein predicted that the lack of state funding, decreased high school graduation rates, and low college enrollment would cause colleges to increase tuition to keep their doors open (2014). Although there has been a significant push by the federal government to increase financial aid to students who seek a college education, numbers show that increased aid has not risen at the same rate as tuition rates (CollegeBoard, 2019).

Lack of public funding for higher education institutions has caused most colleges to rely more on tuition as their primary source of revenue (King & Alperstein, 2014). As a result, students are relying more heavily on loans. Research concluded there is a rapidly advancing student loan market that has seen an increase from $92.6 billion in 2014 to $136.3 billion in 2021 (Schak et al., 2021). Consequently, students are becoming concerned with the return of their academic investment and seek educational opportunities that are more economically sound (King & Alperstein, 2014). Colleges are beginning to see online programming as a good fit due to the

lack of operational costs associated with traditional college facilities. Those savings can be passed on to students to help lower costs. King and Alperstein (2014) suggest:

> Because online education does not require the same investment in "bricks and mortar" and potentially increases the market for students, online education could theoretically result in an increase in revenue with only a marginal increase in cost, making it attractive to the business side of higher education. (p. 24)

Flexible Class Times

Colleges have seen consistent enrollment of non-traditional students—students enrolled in college over the age of 24. In 2017, non-traditional students made up 40% of enrollment in all degree offering higher education institutions ("Post-Traditional students in higher education," 2021). In addition, non-traditional students participate in online programs at a higher rate than traditional college students. Usually, college is not the central focus for adult learners. With obligations such as family and employment to contend with, colleges must often create programs to accommodate this growing population (King & Alperstein, 2014). Courses and programs that offer variety and freedom rather than the constraints of a classroom environment may work best. Finally, since most online programs do not necessitate a standardized assessment test for admissions, this eliminates a barrier for most working adults whose lack of higher education may not be indicative of their ability to succeed online (King & Alperstein, 2014).

Flexible Program and Course Development

With its present popularity and marketability, institutions are often allowed to think outside the box when developing online programs. Most college academic calendars consist of campus-based courses that meet one to three times per week for eight, 10, or 15 weeks; however, many online programs allow students the opportunity to decrease the semester-length while increasing course intensity (King & Alperstein, 2014). Four classes taken over 15 weeks are often reduced to four one-month classes. Also, online programs that do adhere to semesters or

quarters allow students to start their online education at almost any time on the academic calendar (King & Alperstein, 2014).

THE PITFALLS OF ONLINE LEARNING

Although online learning is immensely popular among students, the concept may have some disadvantages. Some research studies indicate that students in online courses have lower completion rates than on-campus students (Haynie, 2015). Haynie (2015) believes higher rates of incompletion in those courses may lead to student decline as they may believe online courses are more difficult. From an institutional standpoint, an increased drop-out rate may imply poor program development, diminished quality in delivery, or a lack of student satisfaction (Haynie, 2014).

Many who partake in online courses are often part-time students who choose distance learning because of the flexibility of academic engagement while maintaining familial and occupational demands (King & Alperstein, 2014; "Post-Traditional students in higher education," 2021). As with those who experience traditional face-to-face learning, some students find it difficult to juggle life and the academic rigors of college and decide to stop out or drop out. Research reviewing factors contributing to e-learning dropout discovered a lack of self-regulation and motivation played a major role in students' decisions to leave an online program (Barak et al., 2016). Also, students often enroll in fewer credits when taking online courses than they would take on campus-based courses, increasing the length of completion and possibly contributing to the online course dropout rate (Bettinger & Loeb, 2017). Further research concluded the attributes of students as they entered post-secondary education, such as learning skills, psychological behavior, and prior professional and academic experience were paramount in influencing students' choice to discontinue their online experience (Muljana & Luo, 2019).

In addition to low completion rates, research implies college students perform better academically in traditional face-to-face courses as compared to online offerings (Arias et al., 2018; Bettinger & Loeb, 2017). The data suggest taking online courses decreases student grades by 0.44 points and cumulative GPA the following term by 0.15 points (Bettinger & Loeb, 2017). It is worse for academically challenged students. Lower performing students who take online classes see an average decline in GPA of .5 points or more (Bettinger & Loeb, 2017).

COVID-19 AND EMERGENCY REMOTE LEARNING

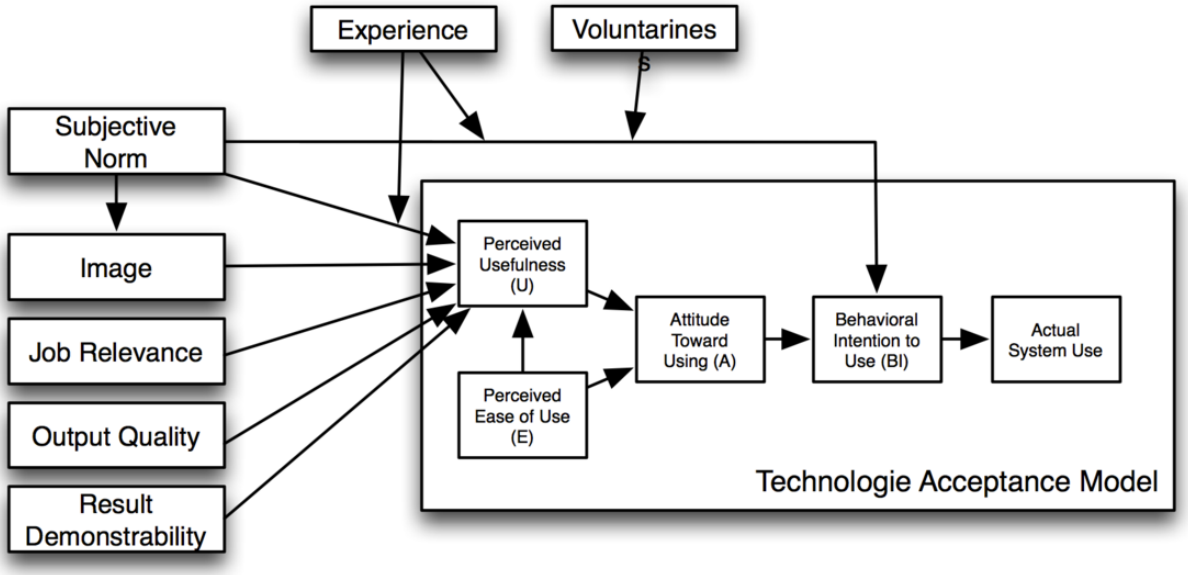
With the onset of the COVID-19 pandemic, colleges and universities were mandated to create a safe educational environment while providing an exceptional student experience. Over 1,000 institutions of higher learning did this in the form of online learning ("Higher Education Response to Coronavirus (COVID-19)," 2020). Because of the rate at which in-person courses would have to be converted to online, most post-secondary institutions opted for emergency remote teaching (Hodges et al., 2020). Although an initial study reported positive attitudes toward emergency remote teaching (Martinho et al., 2021) and mandatory online training increased professor satisfaction (McGee et al., 2017; Mohr & Shelton, 2017), other research concludes that forcing faculty to deliver online courses in a condensed timeframe can negatively impact their perception of online teaching (Lederman, 2020; Trammell & LaForge, 2017)). In some cases, factors such as limited experience with online delivery, perceiving additional online courses as a detraction to teaching and research, and lack of institutional resources to provide adequate training can cause professors to forgo online course delivery (Lederman, 2020; Luongo, 2018; Pundak & Dvir, 2014; Trammell & LaForge, 2017).

TAM2 AND FACTORS THAT INFLUENCE THE USE OF NEW TECHNOLOGY

In 1996 and again in 2000, Venkatesh and Davis expanded on the earlier version of a Technology Acceptance Model, including seven factors that influenced an individual to use new technology. The TAM 2, as it is called, expounded on the basic concepts of Perceived Usefulness (PU) and Perceived Ease of Use (PEU), resulting in a more detailed analysis of its previous findings. In addition to the seven factors, the research revealed that an individual's belief in their abilities to use a computer had a significant effect on PEU before and after a user is introduced to technological systems (Venkatesh & Davis, 1996). Secondly, Venkatesh and Davis (2000) determined PU was drastically affected by:

- Result Demonstrability – perceived benefits of using a technological system.
- Output Quality – the technological quality needed to achieve a certain task.
- Job Relevance – the belief that technology can assist in accomplishing meaningful goals.
- Image – individual's perception of how they are viewed personally and professionally by others as a result of utilizing technology.
- Subjective Norm – an individual's view of how others within their organization perceive whether they should use technology.
- Experience – the frequency in exposure or familiarity with a technological system that affects the use of that technology.
- Voluntariness – the willingness to use technology whether mandatory or voluntary.

Figure 1. Technology Assistance Model (TAM2)



TAM2. Reprinted by permission, (Viswanath Venkatesh, Fred D. Davis), A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies, Management Sciences, 46, 2. Copyright (2000). The Institute for Operation Research and the Management Sciences, 5521 Research Park Drive, Suite 200, Castonsville, Maryland 21228 USA.

Marangunic & Granic (2015) considered the TAM2 a major contribution in determining human behavior toward the use or disuse of technology. In line with this research, Wingo et al. (2017) believed faculty members' attitudes toward online course delivery could be investigated using this model. The researchers analyzed 67 empirical studies involving faculty teaching online using the factors that influence the use of technology within the TAM2 model to organize their findings. The factors concluded from research associated with the TAM form the basis of this researcher's literary research (Davis, 1989; Venkatesh & Davis, 1996, 2000; Wingo et al., 2017).

IMAGE

According to Venkatesh and Davis' (2000) explanation of the TAM2, social influences such as personal image and the perception of technology by others play a significant role as to

whether the technology is perceived as useful to enhance work performance in certain organizations. These influences can be intrinsic motivators for faculty choosing to teach online. For instance, internal factors such as a desire to experience a different teaching modality, having an invested interest in the course being developed, and teaching online courses that help students graduate promptly surfaced as key indicators motivating professors to deliver online courses (Roby et al., 2013).

Additional findings by Glass (2017) explained faculty perceptions of online course delivery were based on two important themes: the ability to express themselves through online course design and their opportunities to imitate specific social roles in online courses that were standard in their traditional face-to-face courses. In other words, faculty who could create online courses that reflected their life experiences and pedagogical perspectives spoke positively about developing and delivering courses online. Comparably, faculty who were able to imitate professional roles as mentors, student advocators, or advisors as they did in a classroom environment reported an encouraging perspective of online teaching.

Furthermore, a 2015 study found that high-profile professors representing top universities were motivated to teach Massive Open Online Courses (MOOCs) because of their unconventional difference to traditional higher education online programs (Evans & Myrick, 2015). Faculty participating in a separate study that same year reported their motivation to teach online courses were based on the appeal of enhancing their reputation and gaining visibility and specializing as an online professor (Peach & Bieber, 2015).

While image may be an important factor for faculty members' engagement of online course delivery, for others the fear of tainting that image can cause them to withdraw from online course delivery altogether. Mitchell et al.'s 2015 study of faculty avoidance of online education

determined their participants revealed fears of teaching an unfamiliar modality, the potential failure to excel in an online environment, and the disruption of interpersonal relationships with students as key issues that lead faculty to avoid online course delivery. Still, tenure track professors in Ruth's (2018) study, although supported by administration to develop online content, were not given clear instructions on how or if their participation would influence a promotion. The same study discovered that lower response rates and decreased student evaluation scores associated with online course evaluations were also a cause for concern as both were speculated as affecting faculty performance reviews.

The perception of how an academic division is viewed by its institution could affect faculty members' perceptions of online course delivery. Grossman and Johnson's (2015) study of accounting professors and online coursework found participants were concerned with the potential of cheating and the perceived lack of academic rigor associated with online delivery. As a result, the accounting faculty were less likely to accept transfer credit from online institutions. Similarly, some professors have issues with the influence online course delivery may have on the character and academic legitimacy of the institutions that employ them, impacting future job opportunities and potentially their livelihood (Mitchell et al., 2015). Finally, Ruth (2018) believed faculty may neglect the desire to implement online delivery if the institutions' strategic plan is to use the revenue to offset faculty labor costs.

JOB RELEVANCE

The TAM2 concluded perceived usefulness (PU) was directly related to job relevance or the degree to which technology was considered helpful in completing meaningful goals (Venkatesh & Davis, 2000). In relation to online teaching, Wingo et al. (2017) implied that faculty who perceive a technological system as beneficial to student learning are more likely to

view it as useful within their occupation, thereby changing the behavior regarding the use of that technology.

In terms of the quality of online content, as it relates to student learning, research findings vary. A study conducted by Pundak and Dvir (2014) concluded 38% of the faculty they surveyed felt online education would be detrimental to student learning. Survey findings involving nearly 3,000 faculty reported that only 22% of professors agreed online course student outcomes were equal to traditional face-to-face student outcomes (Jaschik & Lederman, 2014). Finally, Shelton (2014) concluded that although many of the university lecturers in his study had a positive perception of information and communication technology and incorporated it into their course curriculum frequently, some lectures reported they did not feel that an online modality method had a positive effect on student learning. However, research conducted by Broussard and Wilson (2018) concluded more positive findings. Their study discovered nursing faculty who taught online believed both online and blended courses were equal to the learning outcomes of face-to-face courses, resulting in a positive attitude toward online teaching.

Additionally, researchers found that a professor's confidence in their ability to effectively engage students online was shown to be affected by the faculty's perception of how well students learned within the course (Horvitz et al., 2015). Faculty who were able to measure student success in terms of course mastery had an increase in their self-efficacy regarding online teaching. This research suggests that faculty may find greater fulfillment teaching online when they experience student progression versus being instructionally effective or adequately managing an online classroom environment. In contrast, Johnson et al. (2011) concluded that although the faculty participants in their study believed online student learning was heavily dependent upon instruction quality and the academic maturity of the online student, they all

agreed a seasoned, confident faculty member could improve student learning despite the delivery method.

Faculty members' perceptions of online course delivery as it relates to student learning can be multifaceted. Faculty in Johnson et al. (2011) study concurred that theoretical courses were more conducive to online student learning than skills-based courses which seemed more of a challenge for students in an online format. When compared to face-to-face instruction, the same study discovered a quarter of the participants supported the ideology that undergraduate students would be less successful taking online courses than graduate students. This coincides with Evans and Myrick's (2015) research on faculty members' perceptions of Massive Open Online Courses which found that some faculty did not believe MOOC students learned as well as students in a face-to-face environment. Participants of the study noted that although they enjoyed the opportunity to teach to thousands of students, they underestimated the personal challenges of teaching online courses to students who were disadvantaged, underprepared, or those with communication barriers due to cultural differences.

Experience

Various studies have shown a correlation between online experience and faculty attitudes toward online course delivery (Bote-Vericad, 2021; Bunk et al., 2015; Dhilla, 2017). Researchers found that faculty members with less experience in delivering courses online perceived more barriers to online teaching (Bote-Vericad, 2021) and were less supportive of the online format (Dhilla, 2017) than those with more experience. Other studies focusing on faculty perceptions related to online teaching found faculty with less experience reported less satisfaction (Walters et al., 2017) and confidence (Martin et al., 2019) in the online teaching environment. Still, Hunt et al. (2014) found that inexperienced online professors were less driven by stipends and meeting

student needs and more concerned by their lack of training and technical skills than experienced faculty. In contrast, experienced online professors in the same study were driven more by financial stipends and flexibility in course delivery, and less concerned with student engagement than inexperienced faculty.

A study investigating emotions as motivating factors for online teaching and its impact on faculty attitudes concluded that faculty believed their institutions were too aggressive in implementing online education when they had no online teaching experience coupled with feelings of fear regarding online course delivery (Bunk et al., 2015). In terms of the overall increase in online education, two-thirds of faculty participants in the previous study that taught online and blended courses at the same time reported being excited about online education's growth and impact. However, faculty without online teaching experience were likely to express more fear than excitement about online education's global influence (Bunk et al., 2015).

In addition, professional development can also play a role in how professors view online course delivery. Bote-Vericad's (2021) research on online education and perceived faculty attitudes toward it, revealed that facilitated online learning opportunities for faculty lessened the extent to which perceived intrinsic, extrinsic, and institutional barriers to online teaching were recognized. Researchers suggest access to quality training may enhance faculty instructional skills and increase faculty satisfaction of teaching online (Stickney et al., 2019).

Research has shown that faculty experience with online education has a significant effect on faculty members' perceptions of online learning outcomes (Allen & Seaman, 2013; Lederman, 2019). Research led by Lederman (2019) indicated that experienced faculty support the use of educational technology and believe teaching online has enhanced their job performance. For those faculty teaching at least one online course, 32% believed that online

learning outcomes could be achieved at the same rate as face-to-face course delivery (Lederman, 2019).

A study by Hunt et al. (2014) investigated possible reasons faculty with no experience may view online education less favorably than traditional face-to-face education. They found that inexperienced faculty were concerned about their lack of training, lack of technological skills, and inability to interact with students as impediments to how they delivered the courses online. A study by Pundak and Dvir (2014) discovered similar concerns. These researchers found that although over half of the engineering professors they studied were familiar with online courses, only 10% knew how those courses were developed and taught. As a result, those professors were hesitant to adopt an online teaching format. Lastly, Grossman and Johnson's (2015) research of faculty perceptions of online accounting coursework discovered that faculty members with both online and administrative experience were more in support of approving online accounting credit than faculty without online teaching experience.

Perceived Ease of Use

The Technology Acceptance Model concludes that two important elements, PEU and PU, determine a user's adoption of newly introduced technology (Davis, 1989). Likewise, Alanazy's (2018) investigation of management's role in faculty members' adoption of online technology revealed that the participants' perception of ease of use of online technology was significantly related to their future adoption of that online technology. Additionally, the research revealed that extrinsic motivators such as administrative support "could enhance teachers' perceived usefulness and ease of use, as well as simultaneously cultivate a more favorable organizational climate toward using online technology" (p. 7). Davis (1989) defines PEU as the perceived effort applied by users to learn and master new technology.

Expanding on the previous Technology Acceptance Model, Venkatesh and Davis (1996) revealed that a user's confidence in their ability to use a computer, dramatically affected the PEU of a technological system before and after exposure to that system. This research can prove helpful for reluctant faculty, as a 2019 study found the ease of using a customer management system for faculty teaching online was associated with a general satisfaction of the teaching experience (Stickney et al.). Further research revealed STEM faculty found it easier to use computer applications for grading purposes when compared to peer grading, suggesting online courses may be better equipped for some aspects of student evaluation, thereby improving the professor's online experience (Evans & Myrick, 2015).

Technical difficulties associated with online learning can disrupt PEU. Grantz and Looney's (2020) findings regarding faculty perceived barriers to teaching online, reported technical problems associated with online course delivery were expressed as a barrier leading to limited technological use. Interestingly, Stickney et al (2019) found that as faculty relied more on technical support while teaching online, the more they were dissatisfied with their online teaching experience. The researchers concluded although faculty may enjoy having technical support at their disposal, they may also dislike the fact they need it.

Lastly, in a 2015 study investigating faculty self-efficacy related to online teaching, Horvitz et al. concluded technical skills, as they relate to a professor's discipline, can affect that professor's confidence in teaching online. It was discovered that academic disciplines such as business, education, health, and aviation were early adopters of online course delivery. The researchers believed the perceived technological skills associated with these professional fields increase the confidence of faculty teaching in those online environments.

Subjective Norms

Wingo et al.'s (2017) evaluation of the TAM2 describe a subjective norm as a "users understanding of the value of using a system [of technology] driven in part by their perceptions of whether others in an organization feel that they should use that system" (p. 23). A study investigating faculty attitudes toward the adoption of technology found a person's perceived usefulness of technology could be affected by social influences (Alanazy, 2018). Additionally, the study revealed that faculty perceived usefulness of technology and social norms were positively affected by their perception of support by administrative leaders. Further research concluded that administrative support in the form of professional development could be a critical element in helping decrease faculty's fears of online technology (Luongo, 2018). A comparable study revealed support for online faculty through organizational policies in favor of online education influenced faculty's satisfaction with delivering courses online (Stickney et al., 2019). This coincides with Martin et al.'s (2019) research which concludes that structured administrative, personnel, and pedagogical support in the form of a reduced teaching load, teaching assistants, and strategies for online teaching improved faculties' perspectives of online education. Finally, a 2018 study examining the perspectives about online teaching in mid-career and senior faculty determined that faculty participation in learning communities and instructional support groups helped them feel a sense of validation from their colleagues (Mansbach & Austin). A similar study that same year discovered some faculty felt that feeling a sense of worth from the online students and administrative leadership were critical to their success in teaching online (Luongo, 2018).

QUALITY OUTPUT

Venkatesh and Davis' (2000) described quality output as a variable that determined technology acceptance. They concluded that the quality of the technology used to achieve specific tasks could influence a user's perception of its PU. Therefore, the better the quality, the more likely it is to be used, thereby leading to the adoption of that technology. Similarly, a faculty member's personal biases toward academic technology and its perceived effect on student outcomes influence PU and the likelihood of acceptance.

Research determining faculty perceptions of online distance education versus formal education (face-to-face instruction), identified several faculty preferences (Karaduman & Mencet, 2013). Of the faculty participants, 60% preferred formal education in terms of course participation, citing face-to-face instruction offers more opportunities for interactivity than distance learning. When considering the ease of responding to and solving student issues regarding course content, 70% of faculty participants preferred formal education as their primary means of providing solutions to the obstacles that students face. A similar study revealed that professors teaching a variety of psychology courses preferred face-to-face instruction compared to online instruction due to the complexities of the subject matter (Dhilla, 2017). When categorized by curriculum, methodology courses were the least preferred in an online format, followed by advanced content, then capstone courses, and finally introductory courses. In contrast, findings from Karaduman and Mencet (2013) concluded 70% of faculty participants preferred online distance education when determining the effective usage of course hours. In other words, faculty believed time spent preparing for online distance courses was more beneficial than preparing content for a more formal classroom setting. Finally, a 2017 study that investigated faculty perceptions of online learning for the purpose of creating relevant faculty development opportunities found that although professors reported feeling confident in their

ability to foster personal bonds with students, faculty were least satisfied with the lack of student engagement when teaching online, the reliability of online academic technology; and the usefulness of online communication tools such as email and discussion boards (Walters et al., 2017).

Other research shed a more positive light on online education. A study viewing faculty attitudes of online learning through the lens of student and instructor communication revealed 40% of faculty expressed that they were able to communicate with online students just as adequately as with students in a classroom environment (Karaduman & Mencet, 2013). The study also revealed that 70% of faculty participants did not feel that a course they were teaching would be less effective if face-to-face communication did not take place. In a comparable study investigating asynchronous communication as an instructing tool, faculty enjoyed using this method because it allowed students to openly express their opinions and more time to contemplate answers to discussion boards (Bickle & Rucker, 2018). However, despite their praise of asynchronous communication, faculty within the same study also reported the method as being time intensive, void of visual cues and spontaneity. The faculty participants believed using a synchronous web conferencing method was associated with increased faculty-student engagement and a more immediate form of instruction than asynchronous text-based communication.

There is evidence that faculty members' perceptions of their preparedness to teach in an online environment are influenced by the teaching competencies they hold most important (Martin et al., 2019). Faculty participants believed technology that promoted instructional competencies such as providing prompt feedback, designing engaging learning activities, and

simplifying the navigation of their institution's learning management system were the most important competencies that defined their readiness to deliver online content.

Result Demonstrability

Venkatesh and Davis (2000) believed the perceived benefits resulting from the use of technology, known as result demonstrability, influences the notion in which the technology is considered useful. The level of flexibility associated with teaching online courses is regarded as one such benefit. Faculty who believed flexibility was a benefit of teaching online reported being more satisfied with online teaching (Stickney et al., 2019). According to Peach and Bieber (2015), the flexibility of teaching online can be used by professors to bypass constraints placed upon them by traditional face-to-face instruction. Another study recorded flexibility, convenience, and a more diverse student demographic as reasons faculty participated in online course delivery (Luongo, 2018). However, some researchers found that flexibility comes with unexpected consequences. For instance, Mansback and Austin's (2018) research found that although participants in their study discussed flexibility as a primary motivator for teaching online, feelings of always being available by email and the demand for an expedient response by students were challenging. That same research revealed a similar contrast involving the academic autonomy of teaching online. Faculty members teaching online agreed they enjoyed the benefit of having the freedom to deviate from the traditional face-to-face course development and create their own system for managing the course; however, a lack of guidance from their administrative leaders left them unsure about how to initiate and implement the process.

Research regarding faculty perceptions of online course delivery also mentioned the excessive workload and consumption of time associated with developing online course content (Mitchell et al., 2015; Shelton, 2014). When institutions decide to include online delivery into

their strategic plan, a paradigm shift occurs that influences the role of faculty and how they facilitate learning. At the onset of course conversion to an online format, professors are usually at the forefront of the development process due to their knowledge of the subject matter and to establish instructor presence (Trammell & LaForge, 2017). At this point, faculty are presumed to have certain technological skills, familiarity with the online environment, and the capability to provide insight into innovative ways to meet learners' needs (Trammell & LaForge, 2017). Once they begin to teach online, faculty are often expected to be readily available more often and have materials uploaded to the institution's learning management system ahead of schedule (Trammell & LaForge, 2017) as well as grade assignments quickly to ensure timely feedback (Martin et al., 2019). Also, the increased workload may come in the form of additional reading and writing, experienced by faculty who use asynchronous text-based communication to connect with and instruct students (Malik et al., 2017).

Trammell and LaForge (2017) believed faculty new to online delivery may perceive online teaching as more work because of their inability to cope with increased demands and their propensity to work less efficiently due to inexperience with the associated technology. Bote-Vericad (2021) reported that one of the most highly rated barriers (to online course delivery) was time commitment. According to their research, literature which they reviewed regarding online education listed time commitment as a barrier irrespective of the focus of the study (Bote-Vericad, 2021), while faculty in Mitchell et al.'s (2015) study described technology as a time-consuming modality interrupting other tasks such as research, instructing, and service. When using new technologies, Shelton (2014) believed professors decide whether to use that technology based on the amount of time it takes to learn that technology coupled with the amount of time it takes in preparing online content to make use of that technology to influence

student learning. Also, an increased effort was reported as the greatest concern to faculty members involved in developing and teaching MOOCs (Evans & Myrick, 2015).

Pundak and Dvir's (2014) research involving engineering lecturers and their hesitancy to adapt to an online format uncovered that 84% of the participants perceived preparing online courses as too much work in which they could not devote the time. In comparison to a traditional classroom environment, Allen and Seaman (2013) found faculty lecturers believed the amount of work needed to prepare for an online course was much greater than a traditional face-to-face course. Lastly, research regarding faculty motivations for teaching online showed faculty were demotivated to teach online courses when development timelines were impracticable and face-to-face communication was not possible (Bollinger et al., 2019).

More encouragingly, issues regarding instructor workload usually dissipate over time as professors gain experience and begin to feel more comfortable in an online environment (Trammell & LaForge, 2017). In addition, although most professors are aware of the increased commitment, it is believed that having a positive attitude toward online course delivery fosters hard work and increased productivity in areas outside of the online environment such as research and academic service (Meyer, 2012). Lastly, when studying faculty perceptions of teaching high-enrollment online courses, Lowenthal et al. (2019) found that faculty noted having time management skills was crucial when teaching a large number of students in an online environment. With the previous research in mind, institutions that do not provide professors online training early on may find that faculty take much longer to adjust to teaching online (Trammell & LaForge, 2017).

VOLUNTARINESS

Venkatesh and Davis' (2000) investigation into technology use discovered that the subjective norm had a definite effect on the intention to use and adopt that technology. They discovered the subjective norm was moderated by prior experience with using technology and whether using that technology was mandatory or voluntary. Research conducted by McGee et al. (2017) and Mohr and Shelton (2017) concluded that faculty satisfaction regarding online course delivery improved when training was mandatory, even if they were not initially motivated to use online technology for online instruction. However, although faculty members' approval of online teaching increased, faculty members who volunteered to participate in faculty development for mandatory online teaching reported feeling driven to increase their online pedagogy skill set or be left behind (McGee et al., 2017). Still, others expressed feeling overwhelmed by their institution's mandatory online teaching assignments which offered little time for preparation (McGee et al., 2017).

Additionally, the recent COVID-19 pandemic has caused many post-secondary institutions to resort to mandatory online learning in the form of emergency remote teaching (Hodges et al., 2020). It is believed the rate and speed at which those courses were developed, and the additional course workload has had a negative impact on faculty's perception of online course delivery (Hodges et al., 2020; Lederman, 2020; Trammell & LaForge, 2017).

SUMMARY

The history of distance education started with the first correspondence course in 1728 and evolved into advanced technology such as the internet which opened the door to online educational programs that could be accessed from anywhere in the world. The birth of post-secondary online programs gave way to for-profit online institutions as well as online colleges

and platforms that offer courses for free or at little cost to the public. Although online education is of benefit to online students, faculty, and the institutions that offer them, the disadvantages associated with online course delivery can be costly in terms of time and money. However, no matter the advantages or disadvantages, post-secondary institutions have had to adapt in response to the COVID-19 crisis in terms of emergency remote teaching, which has impacted how college faculty feel about teaching online.

Using the TAM2 as a focal point, this researcher investigated literature expanding on the factors Davis and Venkatesh (2000) express as having an impact on the use of new technology. It is these factors that Wingo et al. (2017) conclude are responsible for faculties resistance or acceptance of online course delivery.

CHAPTER THREE: METHODOLOGY

INTRODUCTION

In March of 2020, over 1,100 colleges and universities chose to waive all face-to-face instruction due to the COVID-19 pandemic. As a result, these institutions of higher learning had to rely on their faculty to adapt to exclusively using online instruction in a short period of time. The focus of this study is to identify and understand barriers that prevent college faculty from engaging in asynchronous online delivery and their perception of this delivery method after mandatory participation was implemented due to the COVID-19 pandemic.

A couple of studies suggest faculty have an unhealthy attitude toward online learning (Ciabocchi et al., 2016; Ruth, 2018). Consequently, it is believed that mandatory participation (Trammell & LaForge, 2017) and the aggressive nature in which the courses had to be developed (Hodges et al., 2020; Lederman, 2020), could affect the quality of the course content (Ciabocchi et al., 2016; Hodges et al., 2020) and further exacerbate the negative perception of online teaching.

This study uses a phenomenological approach to understand faculty participants' perception of the phenomenon that is online course delivery through the lens of a constructivist viewpoint. A constructivist perspective seeks understanding and meaning to describe and interpret the multiple realities within our social world (Merriam & Tisdell, 2016).

STUDY PARTICIPANTS AND PURPOSEFUL SAMPLING

Purposeful sampling was used to select eight faculty members of various disciplines from two types of higher education institutions (four-year public university and community college). This type of sampling technique selects individuals or groups who are considerably knowledgeable of the phenomenon that is under investigation (Creswell & Creswell, 2017). Several purposeful sampling strategies exist. Researchers may select extreme or deviant case strategy when the goal is to "learn from unusual manifestations of phenomena of interest" (Palinkas et al., 2015, p. 534). A maximum variation strategy is often used when "documenting unique or diverse variations that have emerged in adapting to different conditions, and to identify important common patterns that cut across variations" (p. 534).

The aforementioned institutions were chosen to gain a unique online perspective from more than one type of institution of higher learning. Faculty who were employed for at least two years at an accredited college or university, whom prior to the COVID-19 pandemic had not taught an asynchronous online course and whose institution required them to participate in emergency remote learning were selected for this research.

RESEARCH DESIGN AND METHODOLOGY

To understand the lived experiences of the selected faculty members as it related to online course delivery, a qualitative research method was selected. Qualitative research is an invaluable mode of investigation for fields such as education and assumes knowledge is gained as the researcher learns from the participants to understand the meaning of their lives while remaining as unbiased as possible (Marshall & Rossman, 2015). It is undergirded by the traditional assumption that research is interpretive and directed by a person's belief and feelings about the world around them and how it should be studied (Creswell & Creswell, 2017). The

general purpose of qualitative research is the attempt to see the world through the eyes of others using documents, observations, and interviews to collect data. This data is then analyzed to identify patterns and topics that may emerge. These discoveries could then be used to interpret the researcher's understanding of the participants point of view (Merriam & Tisdell, 2016).

A professor's experiences using technology plays an important role in their perception of or the meaningfulness of online delivery (Wingo et al., 2017). As a qualitative researcher, my hope was to understand the relevance of these experiences and the meaning the professor attached to them (Marshall & Rossman, 2015) while exploring whether their perception of online course delivery existed based on those experiences (Adhabi & Anozie, 2017). Therefore, a phenomenological approach was implemented, as this type of qualitative research is often used to bring "understanding about the essence and the underlying structure of a phenomenon" (Merriam & Tisdell, 2016, p. 24). Using phenomenology as a research method helped this researcher to understand the professors' foundational meaning associated with their lived experience regarding technology and how it affected their perspective of the phenomenon that is online course delivery, otherwise known as online teaching.

Qualitative research often uses rich personal narratives as data to paint a picture of a lived occurrence or a perceived understanding (Merriam & Tisdell, 2016). Therefore, in-depth interviews were used to investigate factors that shaped the professors' attitudes toward online course delivery. As researchers point out, interviews are the heart of qualitative studies, allowing interviewers to "go deep into exploiting a particular phenomenon, more than any other data collection mechanism" to understand both individual and social issues (Adhabi & Anozie, 2017, p. 8). Also, in-depth interviews are hailed as an important tool to collect large quantities of data rapidly (Marshall & Rossman, 2015). This researcher used a form of phenomenological, semi-

structured inquiry in which questions focused on past and present experiences using open-ended dialogue to uncover individual meaning that lead to actions and interactions (Adhabi & Anozie, 2017; Marshall & Rossman, 2015; Merriam & Tisdell, 2016).

INTERVIEW PROCEDURE

With IRB approval and each institution's permission, a participant invitation email was sent to the researcher's personal contacts at a major four-year university. This contact disseminated the research interview invitation to professors associated with various disciplines across multiple colleges and universities. Faculty who met the aforementioned criteria were asked to participate voluntarily. The email invitation described the purpose of the research and the method used to obtain research information. Interested professors meeting the research criteria were sent a consent form to participate in a 45–60-minute Zoom interview.

All interviews were conducted via Zoom and scheduled in advance by the researcher and participant. Ten questions were asked concerning participants' experience with online education and their attitudes regarding asynchronous online course delivery before and after the COVID-19 pandemic caused their institution to require emergency remote teaching (See Appendix A). In some instances, follow up questions were asked to gain a clearer understanding of the participants' thoughts surrounding topics of interest that arose. Each interview session was planned for 45–60 minutes to give time for interruptions, technical difficulties, and for participants to elaborate fully on the questions asked. It was observed by the researcher that each participant conducted the Zoom interview in their homes. All interviews were completed without major interruptions or the need to reschedule a follow up interview.

Online Interviews

Due to the COVID-19 pandemic taking place at the time of the study, this researcher conducted interviews using a form of computer-mediated communication (CMC) known as Zoom to conduct recorded, synchronous interviews. CMCs allow video and/or voice communication via electronic devices such as computers and cell phones—essentially verbal and video interviews without the face-to-face component (Merriam & Tisdell, 2016). Although face-to-face interviews has its advantages, there are unique benefits to synchronous online interviews (Merriam & Tisdell, 2016):

- Similar to face-to-face interviews, synchronous online interviews allow researchers to interview participants from anywhere in the world.
- Most CMCs allow participants to be recorded, making it easier to playback important verbal details or visual cues that may have been missed during the interview.
- Some CMCs allow interview participant's voices to auto-transcribe throughout the interview, saving the researcher valuable documentation time and eliminating transcription cost.
- Participants for the study are online professors who have access to computer mediated communication technology and by the nature of their occupation, have experience in using it.

Research Questions

Through the interview process, the researcher will attempt to address the following research questions:

1. What perceived factors/barriers prevent faculty members' engagement in an asynchronous online course delivery?
2. How did the emergency move to online after the COVID-19 pandemic affect faculty members' perspectives about teaching an asynchronous online course?

Interview Questions

To gain insight into the online teaching experiences of the faculty participants within the study, some of the following interview questions were asked:

- What was your first experience with online education in any form? (Learning management system, online class, professional development, certification, etc.)
- Before COVID 19, what was your overall perception/apprehensions regarding asynchronous delivery? What factors do you think made you feel that way?
- Now that you have delivered an asynchronous course, what is your perception of that mode of online education/teaching? What experiences do you feel shaped those perceptions?

DATA ANALYSIS

To interpret information collected during the interviews, a thematic analysis method was used to examine the data. Thematic analysis is an approach used to analyze qualitative data in which repeated words, phrases, or descriptions from written or verbal communication can be categorized into themes (Lochmiller, 2021). These themes can then be interpreted and used to gain an overall understanding of a given phenomenon or experience from another person's point of view. Lochmiller (2021) defines thematic analysis as a method for analyzing, identifying, and reporting patterns of data. That data is then described and organized in detail. A common method of conducting a thematic analysis involves familiarization, coding, generating themes, reviewing themes, naming and defining themes, and reporting what was found (Lochmiller, 2021).

FAMILIARIZATION

As the foundation for analyzing the data, immersion into the information to be analyzed is important. When obtaining verbal data such as in research that involves interviews, information must be transcribed into a written format (Caulfield, 2020). For this research, the verbal data collected in the form of automated transcripts was read and reread to identify sections of data that could possibly provide common patterns across each interview. Furthermore, the automated transcripts were compared against the recorded interview for clarity and accuracy.

Coding

Transcripts from each interview were manually highlighted and underlined to identify data that could be labeled or "coded" to represent relevant content. Coding can be defined as a basic segment of the raw data or information assessed in a meaningful way regarding a particular phenomenon (Lochmiller, 2021). Nearly 300 data sets were analyzed, coded, and collated to identify characteristics that formed basic patterns or repetitions that become themes.

Generating, Reviewing, and Naming Themes

After the data was transcribed, coded, and collated, patterns began to emerge. Themes were created by sorting the coded data and combining them into broader categories. These categories were then broken down into main themes, sub-themes, or disregarded altogether. Consistent themes were constantly reviewed and reanalyzed against the initial data to see if any potential themes were overlooked; whether the themes were accurate representation of the data; or if changes were warranted to make the themes more useful to the research. Finally, recurring, and relevant themes were identified and given a clear and concise naming convention that defined the meaning of the theme and how it helped explain the data. These final themes were added to the research findings because of their relevance in answering the primary research questions. Furthermore, many of the main themes were consistent with findings associated with the theoretical framework selected for this study (Davis, 1989; Venkatesh & Davis, 1996, 2000).

VALIDITY AND RELIABILITY

To safeguard validity and reliability of the study, various strategies were implemented. First, multiple methods of accumulating data were used. Data collected through the interview process was compared and cross checked with relevant data collected throughout the literature review process to confirm similar published findings. In addition, research participants were

offered the opportunity to review their post interview transcripts. According to Maxwell (2013), this strategy ensures validity because it rules out:

> the possibility of misinterpreting the meaning of what participants say and do and the perspective they have on what is going on as well as being an important way of identifying your own biases and misunderstanding of what you observed. (pp. 126–127)

Finally, vivid descriptions were developed to put into context the lived experiences of the faculty participants and their perceptions of online course delivery. This ensures transferability by allowing future readers and researchers to determine if the following study compares to similar experiences or research they have encountered, thereby promoting reliability and validity (Merriam & Tisdell, 2016).

Assumptions and Biases

Using a qualitative approach allows a researcher to "achieve an understanding of how people make sense out of their lives, delineate the process of meaning-making, and describe how people interpret what they experience" (Merriam & Tisdell, 2016, p. 15). However, the researcher must be careful not to affect the validity of the study by inviting his or her own biases and interpretation into the research.

This researcher's assumptions and biases derive from current work experience as an online program development provider for a flagship university and the institutions within its system. This work entails assisting academic leadership in identifying, planning, and implementing online courses and programs. Consequently, this researcher has observed the praises and prejudices regarding the development of online course delivery. Because of these observations, it is assumed that optimistic perceptions of online learning are derived from positive experiences associated with academic technology. However, negative perceptions derive from institutional and individual preferences to adhere to traditional forms of education.

SUMMARY

To study faculty members' perception of their online experience before and after the COVID-19 pandemic, this researcher used a qualitative approach and purposeful sampling to understand and identify barriers that may have prevented faculty members from participating in asynchronous online delivery. The research also examined the faculty members' perceptions of teaching asynchronously after being obligated to do so by their institutions. In addition, recorded online video interviews were conducted with eight faculty members employed by a public university and community colleges. Thematic data analysis was used to identify common themes experienced by each research participant. Those themes were then interpreted to reveal findings reported in the next chapter. Allowing the participants to review their transcripts for accuracy and creating vivid data descriptions so future readers can easily compare similar findings were implemented to enhance reliability and validity. Finally, this researcher's limitations, assumptions, and biases were identified in an effort to lessen its impact on the validity of the study.

CHAPTER FOUR: RESULTS AND ANALYSIS

INTRODUCTION

The purpose of this study was to identify and understand barriers that prevent college faculty from engaging in asynchronous online delivery and their perception of this delivery method after mandatory participation was implemented due to the COVID-19 pandemic. It is believed that the mandatory course development required by college faculty combined with other factors such as lack of online teaching experience (Conceicao & Lehman, 2011) could result in poorly developed course content (Ciabocchi et al., 2016; Hodges et al., 2020) and a negative perception of online course delivery (Hodges et al., 2020; Lederman, 2020). Therefore, faculty who were employed for at least two years at an accredited college or university, whom prior to the COVID-19 pandemic have not taught an asynchronous online course and whose institution requires them to participate in emergency remote learning was selected as participants for this research.

This study uses a phenomenological approach to examine the faculty participants' lived online experiences to identify and understand barriers that prevent college faculty from engaging in asynchronous online delivery and their perception of this delivery method after mandatory participation was implemented due to the COVID-19 pandemic. Data analyzed from this study's semi-structured interview questions revealed several themes that were then separated into two categories: (1) Perceptions of online learning before teaching asynchronously and (2)

Perceptions after teaching asynchronously. The second category, Perceptions after teaching asynchronously category, was then separated into positive and negative viewpoints.

PARTICIPANT DEMOGRAPHICS

The findings of this study stem from video conference interviews with eight faculty professors. Seven of the eight faculty members are employed by community colleges, while one faculty member was hired by a state university. Faculty employment ranged from 10 to 31 years at their current college or university, with seven of the eight institutions located in the Midwestern United States. Faculty disciplines include economics, freshman seminar, dental hygiene, and psychology, with two faculty members teaching from the English department and another two teaching from the computer science discipline. Table 1 depicts a summary of the participants' demographics. Participant's names have been changed to protect their identity.

Table 1: Participant Demographics

PARTICIPANT	YEARS EMPLOYED WITH INSTITUTION	UNIVERSITY OR CC	INSTITUTION LOCATION	DISCIPLINE
Nerissa	31 years	Community College	Midwest	Computer Science
Angel	13 years	Public University	Midwest	Arts and Sciences (Freshman Seminar)
Rebecca	10 years	Community College	Midwest	English
Imani	10 years	Community College	Midwest	Computer Information Systems
Robert	15 years	Community College	Southwest	Economics
Addie	20 years	Community College	Midwest	Dental Hygiene
Lee	20 years	Community College	Midwest	English
Ann	16 years	Community College	Midwest	Psychology

RESEARCH QUESTIONS

This chapter's findings were discovered as a result of the following research questions:

1. What factors/barriers prevent faculty members in engaging in asynchronous online teaching?
2. How did the emergency move to online after COVID-19 affect faculty members' perception about teaching an asynchronous online course?

RESEARCH QUESTION 1: RESULTS

Various factors contributed to the research participants' decision to not teach an asynchronous online course. The following results depict the responses of eight research participants, their perceptions of asynchronous course delivery, and the barriers that prevented them from participating in teaching asynchronously. The results are centered around five key themes: Prior Assumptions, Institutional Decisions, Perceived Online Student Experiences, a Preference for Face-to-Face Teaching, and Unfamiliarity with the Modality.

PRIOR ASSUMPTIONS AND EXPERIENCES

Results from this research conclude three of the eight participants explained that prior assumptions and experiences regarding online learning had an impact on their perception of asynchronous course delivery. For this research, assumptions are defined as beliefs about a phenomenon accepted as fact, without actual proof that the assumption is true.

> *Rebecca:*
>
> The fear is that you're not connecting, that somehow, you're missing something. In person you can ask those questions, and I'm one that doesn't mind asking questions. I don't want to be the student who goes home assuming. But in an asynchronous situation, you can't always ask the most important questions for you, and you're not sure when you got it right. That can cause much anxiety. I think it would be important too for all of us as educators to try to improve that.

> *Nerissa:*
>
> Online asynchronous or synchronous doesn't make any difference; it is not for every student. It totally depends on what kind of learner they are. There are some people who

need a step by step, hands-on, let me see your fingers type thing, and I'm okay with that. I teach that way also. My late ex-husband's cousin had quite a few medical problems, but she wanted to learn. She said, "I literally cannot go to a campus, but I want to learn." At that point I was teaching her QuickBooks and so I helped her, and I was like, okay, there are some people that really need this kind of learning style.

Imani:

I saw students not really learning that well. So that's what kind of prodded me to do some research in seeing how actually they were doing. I felt that those students that really fit the purpose, it was okay. Pregnant teenage girls, students that were caught up in the logistics system, those were okay, but then it started just all students who didn't feel like going to traditional school. I started feeling some kind of way when they're not really learning that well. Those students that really needed it did okay. Most of them. Even so, the SAT scores were lower.

Institutional Decisions

Still, three participants did not participate in asynchronous delivery because of interdepartmental policies or disinterest by leadership within their institution.

Addie:

I wanted to do like a flip concept of performing, like recording lectures, having students observe those prior to the classroom, and then using the classroom perspective as the application. I have a lot of push-back from the division not to do that. I come from a small department in dental hygiene. We try to keep everything similar throughout the school throughout the program so students are comfortable with the same delivery system, and I couldn't get anybody on board with me to do it that way.

Ann:

I'm kind of the low man of the totem pole because I came into the department. And even though I may have been here a little longer than some of the people that are there, I don't have the departmental seniority. So, with not having the departmental seniority, if the limited number of online courses are taken by those who are more senior than I am, I'm just SOL unless I develop a new class.

Robert:

I didn't feel like it was something I really needed to get into partly because one thing about online is you can go to any online institution, right? Why would you need to go to [states his institution's name]? What our value-add is is that we're right around the block from you. Right? And, so, you can come into our tutoring services, and you can come and talk to your professor. That's where our value-add is. If you want to take an online class, take it from any place around the country or the world.

Perceived Online Student Experience

Similarly, three of the eight participants' perceptions of the student online experience influenced their decision to forgo teaching asynchronous courses.

Lee:

> I come out of an experience where you did face-to-face; you'd read your poem out loud to all your classmates right in the room. It just seemed a little bit more organic. I didn't find the student comments to each other in the emails very substantial. Whereas if you're face-to-face and someone's like, "I really like your imagery," I could be like, well what imagery? Point to a place in the poem. It would happen in real time. I didn't have to wait until 16 hours later when they finally checked their email and then they might answer it two days later. I know the teaching on my end was good because I gave them the best comments that I could on their poems through email, but I wanted more interaction between the students and that was hard to do.

Rebecca:

> My first experience was at the University of Michigan, and it was a course that I took in my graduate program, their master's degree in information. And so that's when I first learned about how we experience learning in an isolated way. That was what was hard for me because I was used to in-person classes with colleagues with fellow students. And you know you grow together. It requires a lot more discipline when your job is just to get the assignments in. Sometimes it was very difficult to reach the instructor. If I had a question you have to put in a question and hope you hear back and so sometimes you don't.

Robert:

> Around 2009–10, I tried my hand at a hybrid course that I developed, and I wasn't quite ready to do that. I was coming at it from an in-person perspective, and I didn't have enough online support to help. What I found myself doing was trying to talk twice as fast, with half as much time and my students suffered because of it. I basically just threw my hands up after a couple of semesters of that.

Preference for Face-to-Face Teaching

Results also found three of the eight participants felt their preference for face-to-face instruction was a contributing factor to their perception towards asynchronous course delivery.

Rebecca:

> It started a couple of years ago during my time at [current institution] as an adjunct when I took a course in online training and got certified, but never knew when I would use it. Because at the time it was always face-to-face and the more that I went through the course, the more I was convinced, I'm not sure if I really want to teach online.

Robert:

That was really I think energizing about being a teacher is showing up at 9 am, Monday, Wednesday, and Friday with a class of 30 students and getting to know them. Seeing their nonverbal cues and getting that instantaneous formative assessment, not through any sort of metrics, but through a knowing glance. Is there a flashing light bulb above their head or are you already spaced out and looking at their cell phone too much and disengaged? And so over time I felt I really honed those skills more.

Lee:

It was more of talking to other faculty members and who did teach online and talked about what their weeks were like. I just kind of determined that's not for me. I think I shine face-to-face, and it's what I was used to. I just didn't want to deal with it. I had pre-determined without really any experience, prior to COVID, but I would have retired having never taught an online class. And it may have been stubbornness. May have been getting older. It's like I don't want to learn that. OK, I can do it but they're not telling me I have to. I'm not going to do it.

RESEARCH QUESTION 1: ANALYSIS

The responses to research question one clearly identifies barriers faculty feel are associated with their decision to forgo teaching an asynchronous online course. Each participant's response was analyzed with key themes presented in the following paragraphs.

Faculty Assumptions and Experiences

Three of the research participants involved in the study conveyed that prior assumptions and online experiences before teaching online influenced their decision to avoid asynchronous course delivery. Prior to teaching online, research participant Rebecca was concerned that asynchronous course delivery lacked personal connection resulting in unanswered questions and student anxiety. Her conclusion was based on her experience as an online student. Furthermore, Nerissa believed asynchronous course delivery was not for everyone. Because of her prior experience teaching a student with a physical disability, she believed the modality would be detrimental to students who need step by step instructions. Finally, Imani's limited knowledge of asynchronous online delivery combined with online learning's increasing popularity, prompted

her to conduct research involving online student success. From her research, she concluded that students who learned online did not do well academically, therefore, she felt asynchronous learning should only be reserved for students who really need it. These participants, similar to professors in Uhlig's research (2002), were found to already have had preconceived attitudes that distance education would compromise educational quality, before ever teaching an online course.

Institutional/Departmental Disinterest

Contrary to other participants, Addie and Ann had a more open perception of asynchronous online delivery. Although they were not given the opportunity to teach asynchronously by their institutions before the COVID-19 pandemic, they thought the modality might be helpful pedagogically and personally. However, participant Ann's ability to teach online was based on availability of courses. In her department, senior faculty members had the first choice of online classes. Addie's nonparticipation in online course delivery stemmed from her department's decision to keep a more traditional modality of delivery, despite her request to use online concepts in her face-to-face courses. Robert, on the other hand, did not teach asynchronously because the institution's administration valued traditional teaching more than online instruction.

In a comparable study (Mitchell et al., 2015), participants expressed concern with the influence online course delivery would have on the character and academic legitimacy of the institutions in which they were employed.

Perceived Online Student Experience

According to the research, the perceived student experience associated with online learning played a critical role in faculty choosing to teach asynchronously. Research participants perceived that, due to asynchronous course delivery, student learning would suffer to some

degree. Research participant Lee recalled his first experience with asynchronous instruction while teaching poetry to high school students via email during the summer. He felt that being able to deliver the content in real-time seemed more natural and would allow for greater student-to-student and student-to-instructor interaction. Another faculty participant, Rebecca, was concerned that asynchronous delivery would not allow students to receive feedback in a timely manner. Likewise, Robert felt due to a lack of institutional support, he was not prepared to teach a hybrid course he had developed. As a result, he felt the students struggled. Becoming frustrated, he stopped teaching the course after a few semesters.

These results coincide with the findings of Horvitz et al. (2015) that concluded faculty members' confidence in their abilities to teach online were impacted by their perception of how well students would perform in their course. According to Shelton (2014), university lecturers in his study reported they did not feel using online technology had a positive effect on student learning. Lastly, faculty in Mitchell et al.'s study avoided teaching online because they felt the modality disrupted faculty members' interpersonal relationships with students.

Preference for Face-to-Face Instruction

Several research participants believed that teaching in a traditional face-to-face teaching environment felt familiar and more gratifying than instructing students online. For instance, because teaching face-to-face was more prevalent throughout her career, research participant Rebecca was unsure that engaging students in an online modality was worth it. Research participant Robert enjoyed assessing student learning through face-to-face interaction. He believed that asynchronous delivery would negate his abilities to read nonverbal cues and instantaneously assess students, abilities which he felt are vital to help students succeed. Lastly,

even without having taught an online course, Lee felt he was better at teaching face-to-face. He stated, “It’s what I was used to.”

Similarly, Karaduman and Mencet (2013) found that 60% of faculty participants they studied preferred face-to-face instruction over distance learning because they believed a traditional learning environment fostered more opportunities for interactivity between student and instructor. Likewise, findings from Seaman’s (2012) research suggest faculty are especially pessimistic regarding the quality of online education. Seaman (2012) reported that 65% of faculty believed online learning outcomes are inferior or somewhat inferior compared to traditional face-to-face classrooms.

RESEARCH QUESTION 2: RESULTS

The research revealed each of the eight faculty participants expressed mixed perceptions regarding asynchronous online delivery after being mandated to do so by their higher education institutions. Participant perceptions have been divided into positive and negative categories.

POSITIVE PERCEPTIONS

After their asynchronous online experience, one participant felt more organized and plans to integrate asynchronous teaching methods with his traditional face-to-face courses. Another participant plans to teach more online courses because he feels most online students really want to learn.

> *Robert:*
>
> In the early days, I would be one or two weeks ahead of the semester in terms of how developed my class was and all that. I’d have my syllabus outline and the topics and all the exam dates, but in terms of actually developing the materials, I’d be about a week or two ahead. But now with the course masters, I have to have that all created and set before the first day of class, and so now it’s like flipping a switch. I feel a lot more organized. I feel like the pieces fit together and that they [the students] are moving from a lower level to higher level learning skills along the way and having that scaffolding. It’s so much less

> stressful as a semester is going by. You're not like "I gotta get this lesson plan," and "I gotta get this test created because I gotta get to the copy center." And all these other challenges that come up because of Murphy's Law. It doesn't seem to be an issue as much.
>
> If I'm teaching a fully in-person class again, I'm taking my online course I have right now and moving it in there. Then I'm basically like, "you mean I get two and a half hours with students a week that I can just chat with them the whole darn class online?" Now I get to be your coach. I really get to be your guide on the side.
>
> *Lee:*
>
> When this is all done, more than half of my classes are going to remain online. I like it. I'm really happy with the materials I developed for my fiction writing class. Over the summer I wrote a bunch of blog posts about fiction and screenwriting. So, a lot of my modules are just referring them to my blog posts where I've already done this thorough teaching of specific aspects. My classes that would remain online, fiction writing, probably my literature course and screenwriting. So, I would probably be like two-thirds online, even when they say we can go back to face-to-face. And I think there is a purity to it. I think sometimes in the face-to-face environment there is too much hand-holding happening. And I do think in a good way and a tough way it puts more on the student. Like if you're in an online environment, you gotta want to learn.

After observing student learning after teaching asynchronously, three research participants saw the usefulness of the online modality in helping students move forward in their education and improving overall learning.

> *Rebecca:*
>
> I feel better about it [asynchronous course delivery]. I'm very thankful that it exists, that we now have the technology at this level. Ten years ago, we would not have had this level of capability had COVID hit. So, I'm very thankful for this modality, but it's our job to perfect it. And I see opportunities for it, and many things that we do now under COVID could be continued. I feel more comfortable with its ability to continue a student's learning. I'm completely devoid of contact with students. I'm more comfortable with that because I wasn't sure that people could really learn well that way because there wasn't the impetus or the encouragement. You weren't there to kind of coach them along: "Come on, John, you can do it!" So that part of it I wasn't sure would work well, but I'm more and more convinced it does if you give them [students] more connectivity and transparency and reaching out to the instructor.
>
> *Imani:*
>
> I would like to go back to the classroom of course. I'm okay with it [asynchronous course delivery]. I got a lot of experience, but I want the students to feel comfortable and feel excited about learning. Perception-wise, I think we're gonna be okay. I think that the

more we look at this way of teaching we can find better ways of doing it, not just being like in a box. I enjoy teaching face-to-face. I don't feel that I lack anything. I feel like I'm coming into a world where I can help. I can teach either way. I'm not in any kind of way disappointed that I'm teaching online, but I'm hoping that I could add to the process and help the process be better.

Ann:

Now some of the great things that are happening are developing in my discussion boards. My students are really going all out into the discussion boards and because this is a grade requirement, that means that everybody is, and should be, for the most part, participating. So, I'm able to do those things that would be like pulling teeth in the classroom. So that's really great, and I get into some really robust conversations with the students. I stay out of it. I don't really weigh in so much, but they get into some really interesting dynamics in regard to that.

Three of the eight faculty participants described their perception of how asynchronous online course delivery benefited students personally or academically in some way.

Addie:

I still like the online piece. We try to teach our students to be self-learners because of the fact of our profession and that we have to have continuing education for the rest of our lives. And, so, you have to be a self-starter to learn new things. Doing it from an online perspective kind of forces students to be in that realm.

Rebecca:

[If not for asynchronous online delivery…] many people would have just been out of luck educationally. We would just be quietly waiting for the year or so for this to all go away. And it will eventually, but will that be the end of '21, will that be early '22? When will it leave? In the meantime, is that a whole year and a half or two years, a student will have to wait? So, I'm very thankful for this modality. I have seen how my students have grown in this activity, in this opportunity, in this necessity. I have to say that they stepped up to it.

Lee:

I don't mind commenting online. You know where they send it as a Word document or they send it as a Google Doc, and you have the option to put comments. I almost think pedagogically it's a better experience for them from an English point of view because they all have to read and understand those comments. So, they're engaging kind of their higher order thinking. I think there's an independence to online teaching. There's a purity to it that I actually kind of like. I do think it puts a little more on the student in a good way.

Each of the eight participants expressed professional and personal advantages of teaching asynchronously that contributed to a more positive perception of the teaching modality.

Ann:

> It [teaching asynchronously] has required me to learn some very different things, like how to put students in groups and on teams. And how to record my lectures and not only can I record them, but I just recently learned a couple of weeks ago how to embed questions in them. So, I can give them a quiz, an embedded quiz.
>
> I work 45-minutes away from my job. That means a 45-minute drive there and a 45-minute drive back. Now I walk out of my bedroom and my computer is right there. That in and of itself is really great because I can truly work from home.

Rebecca:

> It [teaching asynchronously] has definitely honed my [technological] skills in many ways. And I'm by no stretch an expert, yet. But you learn a lot about how to make it interesting online; what other programs are out there; and how do you use the programs? Kaltura [Learning Management System] is one that's really helpful in the classroom with asynchronous learning.

Addie:

> I use Blackboard [Learning Management System] a lot, but now I would say, now I'm a rock star at Blackboard. I used to create homework assignments the old traditional way, you know, here's a piece of paper, fill it out, turn it in. About five years ago with our homework, [I required students to] just upload the Word file or upload the PDF, and I'll grade it from there. But I have now changed it into Blackboard as a test, but it's not a test. And then it's already automatically graded for me. It has taken so much time off my hands on grading homework.
>
> This is very selfish of me, but I'm gonna say it. I'm able to work out now almost every day. So, I was like rocking it during COVID. It was awesome. I was able to work out five days a week in my house because my gym was doing it live online and it was great.

Lee:

> Online teaching can help you get ahead in a way that you can't face-to-face. Face-to-face is week to week teaching-wise. You have to be there to deliver the material. By the end of week three of the fall [2020] semester, all of my teaching was done. I'm done through Week 15. I sat here in my office and knocked out two weeks of every class, every day. I worked through my face-to-face syllabus and was like, Okay, what does this look like online. So, if you are time efficient, I do think you can get way ahead and then that frees me up all the more for these [student] emails. I just have to respond to what they send me based on the stuff that's done, but my teaching for this entire semester was done five weeks ago.

> Now the idea of teaching like a spring or summer course where it's like, oh, I could do that online. And then if we do go on a vacation. I can take my laptop with me. I don't have to physically go to school. So that's just like a personal benefit.
>
> A huge benefit of online to me is there's no negative personality that affects everybody. But you know if you have a jackass in a face-to-face class, that's a class you dread going to because [Trevor's] going to be there, always cutting it up or doing something or saying something controversial.
>
> *Robert:*
>
> When you're all online and that's what you got, then necessity creates the good things that happen. So, I think forcing myself to learn the technology and really design a good sensical class. And that's going to just pay dividends for basically the rest of my career.
>
> *Angel:*
>
> I do see some benefit personally because I am a very deep introvert. I have to think about things before I say them, and I often rely on face-to-face classes and asking my students to interact and talk amongst each other. I'm not afforded that because of the delivery method. So, I do find, personally, it [teaching asynchronously] has really pushed the boundaries of my "introvertedness" to force myself into being an extrovert and supplement that with things that are not thought out in the most careful way possible. (Researcher: So, you kind of maybe have to fly by the seat of your pants?) Yes, which is extraordinarily uncomfortable.

Negative Perceptions

Each of the eight participants described the challenges associated with developing and implementing an asynchronous online course.

> *Lee:*
>
> We have to do more to prepare them [the students] for what they have to do to be a good online student. And I'll go into the system, and I check class progress: "We're three weeks in, and you've logged on for an hour and forty minutes? How is that possible? Oh, and well, you're getting an F. I wonder if there's a correlation between you never engaging with the material and you misunderstanding the material."
>
> I do think it's much easier for students to fall through the cracks. There's something about being in the room. You look for your people, and you know when somebody's missing. I can look at my roster online and be like, "I'm not sure I know who that person is," like that name surprises me. Like, I don't think I've seen anything from them. Let me look at class progress. Oh, that explains it. I still think students have a perception that nobody cares about me. I'm just a number in this thing who would even notice if I dropped.

Robert:

When a student used to sign up for our class, they knew they were signing up for an online class because it was the best fit for them. Now a lot of our students would prefer to be in person, but there's no option for in person because of safety concerns. So, now they're being forced into this when they know that they may not be as successful. And that's a real daunting challenge.

Robert also expressed the challenge in determining the proper time to reach out to students struggling in an online environment:

Is it right when they dip below 70%? Is it still when they're passing the class, but they started faltering on a couple of assignments? And how do you catch that and is your system [Learning Management System] sensitive enough to find that. And you worry about blowback, like maybe they are doing okay. But then your instructor reaches out to you, and then they start doubting themselves. So, these are all things rolling around in your head in terms of when can I get the most value added to nudge them to be successful.

I remember back when I was teaching full load in person, and I would have my students working in groups on an assignment or on a worksheet or something. I would have the opportunity to pull students in and have them go outside, and we would talk about what's going on, what's challenging them, and how they're doing in class. I just don't have that opportunity. I can send an email, but it's different. It comes along differently.

There are a few students that are just nailing it, and they're a real pleasure. I wish they were more than just 5- to 10% of my students. And, so, in some ways, you feel like you just kind of have to numb out to kind of de-stress and just know that some students will just not be successful. And then other times you want to open your heart and be like "this is why I'm here. This is the mission of the college, and I am their help," right? I am the one that's going to help them get better. Me and other faculty in their lives throughout the years. It's a constant struggle.

Imani:

Some students were not happy because they said, "if I wanted an online course, I would have taken an online course." Overall, I did a lot of coercing and reassuring them that everything would be okay. But they knew they didn't have too many options. I felt the students didn't have many options. If they wanted to continue their education, then they had to come up to that level. And that's really hard because, even now, students don't put the work in that they should. I don't know if they think online takes less work. My perception is they know this is the best option, but I believe that they are not doing as well as they would if they were face-to-face.

Angel:

I had no idea what I was going to do, so I did nothing to prepare a syllabus. I did nothing to record lectures. I attended some Zoom meetings where people offered information but

no guidance. And, so, I did nothing until almost essentially the first day of classes. I couldn't commit to a syllabus with dates or times, and I surely wasn't going to have the students commit to any dates or times or events that might not occur. So, I went in with essentially a blank syllabus, saying, "I know what I'm doing, but I don't know what I'm doing this semester. And as long as you're flexible, I will be flexible as well."

I question if this freshman seminar class that is designed to help [students] transition from high school to college is a value when it's done in this format. My perspective of it would be to either get rid of it if it can't be done face-to-face or to completely redo it and not charge the students. I don't know that a talking head many miles away from them is valuable, and I won't know that for some time.

I am comfortable with the expectation that technology is inevitably going to fail as everybody has tried to adapt to the bandwidth needed and software that is needed and the amount of technology that is needed. The system inherently is going to fail at some point or another for everybody. I'm hearing stories of students driving to McDonalds to get Wi-Fi, just to do classwork. That's just unthinkable.

There's more to a student than any transcript could ever show. But what is not being told right now is the story of the lack of emotional, mental, and physical support. So, the plight of the student right now is otherwise sequestered to their room. There is really nowhere for the students to go to be students. So, my perception of students I guess I would say has shifted to understand better that academics cannot happen if there's not also mental, emotional, and physical support for students above and beyond what we think of with ADA compliance. A tutoring center is not enough. And we know that now.

Rebecca:

I'm still grappling with the lack of the in-person experience. Because there are a lot of chances to really understand where the student is in learning. With asynchronous, you can only guess through what they submit or through online office hours with opportunities to talk to them like you and I are talking right now. But that may not help me understand some of the nuances of what they're going through with the assignment, with the course in general, with something in their life that I wouldn't know about that is greatly affecting them. And with asynchronous, you really lose out on that part and some students really need that personal connectivity.

Our past president was amazing. He rebuilt the campus to make it a learning hub. A place where you want to go with the lighting, with the beauty of the campus, you want to come there. You want to eat your lunch there, your dinner there. You want to hang out with your friends there. You want to study there. And it became a sanctuary for students, and they spent much time there. And students miss that kind of thing. That's what you don't get with asynchronous learning. So, these are things we have to think through. Is there a way to make that more visual connection in an online format?

Nerissa:

I'm online all the time just answering emails. I know what I was like in class, and I'd have a question and I don't want to wait two days, five days for an answer. So, I make sure my emails are answered quickly. And it's a lot of work. As they say, if you're doing a face-to-face class, you have one class of 30 students, but when you're teaching online you have 30 classes of one student each. And everybody gets their own time on questions answered. Even though it's the same question.

Addie:

I was discussing cultural competency and how to learn different cultures and adapt to the patients of different cultures. We have such a diverse class that it would have been really beneficial to hear the discussion live between everybody versus me just speaking about myself. The experience with everybody, I do miss that interaction.

I guess it's trying to combine the traditional ways of evaluation to an online perspective. In our field our students need to pass a board exam, written board exam. So, our program has really valued quizzes and exams, multiple choice. Doing that is a major portion of our evaluation. When we get to the online perspective, where you don't want to think anybody's cheating, but that's where everybody's thoughts go first because you're online. And it's an environment that's not controlled. I mean we do a lockdown browser, and we use a camera so we can watch them take the exam. But I'm still uncomfortable assuming anybody's cheating. I wish there was just another way of evaluation. But in my department, they really want us to do exams and quizzes.

There was a lot of prep work recording videos and posting videos. The summer was a challenge, just because of the coursework that I had, it's an eight-week course. It required me to break the presentations into categories. And I had 47 categories. So, I had to create 47 presentations. So, all the courses that I usually teach for the last 20 years they're not running right now. So, in order to get my full load, I had to take a class. So, I took a course that I've never taught before. So now I'm online learning that material, but now I'm having to put that online. And then I'm always having to put those presentations and the videos online. So that part is challenging and time consuming.

Ann:

In my introductory classes you have students with the digital divide. You have older returning students who are fearful of the computer. Initially, I found students weren't asking a whole lot of questions in regard to content. They were asking what button do I push to get to where you want me to be. That was slightly frustrating because I want you to ask me about Freud or learning theory. I want you to ask me content-related questions. There's a heightened anxiety within my students, especially those who may have had IEPs (Individualized Education Programs) or learning differences and had lots of support in high school. Now this is their first semester in college, and they're taking a Psych 101 course, and they don't have the benefit of all that support. You have a lot of students who are reaching out that are looking for support, maybe even needy. And if you're not right back if they email you, and I don't get back to them within an hour, they're panicked.

RESEARCH QUESTION 2: ANALYSIS

Participant responses indicated diverse views regarding their perception of asynchronous course delivery after mandatory participation by their education institution. The usefulness of asynchronous teaching, the ease of using the online technology, the benefits associated with being an online student, and the professional and personal advantages obtained by the faculty participants were emergent themes that contributed to a more positive perception of the teaching modality. However, faculty participants also expressed reservations regarding the challenges associated with online learning.

POSITIVE PERCEPTIONS

Ease of Use

Research by Venkatesh and Davis (1996, 2000) concluded that if technology is perceived as easy to use, the more likely it will be perceived as useful, therefore impacting a user's willingness to use that technology. For this research, two participants' experience after participating in the design and implementation of their first asynchronous course seems to coincide with Venkatesh and David's findings. For instance, the process of converting his face-to-face course to an asynchronous format was stated by research participant Robert as "relatively easy." Because of its simplicity, Robert was able to develop assignments in advance and be more organized, thereby decreasing the amount of stress he feels when having to meet deadlines. As a result of this positive experience Robert plans to integrate elements of asynchronous teaching methods with his traditional face-to-face courses. He believes this will give more quality time to spend to coach students beyond just teaching the subject matter. Robert sees the potential in online learning and wants to make the process better.

Like Robert, research participant Lee is more accepting of the delivery modality because of its ease of use. He found that using his created online modules to refer his students to previous blog posts he had written was helpful and simple. After his asynchronous online experience, he now plans to teach two-thirds of his courses online even after students are allowed to return to a face-to-face teaching environment. In addition, he believes that the rigor of online learning allows for more student accountability. Furthermore, Lee prefers the ease of using recorded Zoom lectures asynchronously rather than synchronously. He believes using Zoom in this manner is "lazy" and "for people who are trying to simulate their face-to-face class in an online environment."

Researchers Evans and Myrick (2015) found that when faculty found it easier to use computer applications for specific aspects of online instruction, they reported an improvement in their online teaching experience. It is important to note, the perception of ease of use of online technology was significantly related to the future adoption of that online technology (Huang et al., 2011). Conversely, technical issues associated with online course delivery were seen as a barrier leading to limited technological usage (Huang & Hsiao, 2012).

Usefulness

Research participant Ann saw student-to-student communication improve after teaching asynchronously. After adding a grade incentive to encourage participation, she stated the conversations between students within the discussion board assignments were more "robust" than classroom student-to-student interactions. She believes the discussion boards fostered communication that was almost nonexistent in her traditional classroom settings. After developing and teaching her courses online, Rebecca felt "thankful" for the usefulness of technology that allowed students to continue their education amidst the pandemic. Although she

was not sure asynchronous online delivery would work, she now believes the modality is working well enough "to bring about a reevaluation on all our campuses of how we teach and how much of it." However, she does feel some improvements to the modality should be made. Like Rebecca, Imani sees the usefulness and imperfections associated with online course delivery. As a result, she wants to find ways to improve the online teaching process to help students feel excited and comfortable with the online modality.

Relevantly, the belief that technology is useful plays a critical role in explaining an individual's inclination to use new technology (Davis, 1989; Venkatesh & Davis, 1996, 2000). One factor that contributes to a user's perceived usefulness, known as subjective norm, is defined as "a user's perceptions of whether others in an organization believed they should use a technological system" (Wingo et al., 2017, p. 16). Findings from Venkatesh and Davis' (2000) research revealed that when technology usage is mandatory, subjective norms had a direct effect on a user's intention to use that technology. Therefore, in this research, it is important to note that because of the institutions' mandate to teach online because of the COVID-19 pandemic, it can be assumed the research participants perceived usefulness of the given technology was in some way influenced by their institution's subjective norm.

Advantages for Online Students

Findings from this research concluded three of the eight faculty participants believed asynchronous course delivery awarded specific personal and academic benefits to online students. Participant Rebecca indicated that the existence of asynchronous course delivery allowed students impacted by COVID-19 the opportunity to progress academically without interruption. She also mentioned that through asynchronous delivery, she has "seen how my students have grown" and how she now has a "renewed sense of pride in how adaptable students

can be." Addie's perception of learning in an asynchronous online environment is that the modality influences students to become "self-starters" and learn new things in a variety of ways. She feels this is an attribute her dental hygiene students will need throughout their careers. Finally, Lee felt that from a pedagogical standpoint, offering feedback asynchronously for online assignments was a better experience than offering feedback in a synchronized fashion. He believes that reading and understanding the comments, without the presence of an instructor, prompts students to engage in higher order thinking.

These findings reflect the conclusions of previous research associated with the use of technology as it relates to job relevance. Wingo et al. (2017) determined that faculty who believe a technological system as advantageous to student learning are more than likely to view the technological as useful, and thereby increase the intention toward technological usage. Additionally, Johnson et al. (2011) believed that student success in online learning was determined by the academic maturity of the student. Lastly, research findings by Horvitz et al. (2015) suggest faculty find greater fulfillment teaching online when they perceive students are progressing successfully.

Advantages of Teaching Online

Results from this research indicate that six of the eight participants expressed there were professional and personal advantages experienced while teaching asynchronously. These advantages contributed to a more positive perception of the teaching modality. As an example, because of her institution's mandate to offer courses asynchronously, Ann replied, "I have the online teaching experience that I wasn't sure how it was going to manifest prior to COVID." That experience included embedding questions in recorded lectures and assigning group work online. Another benefit she mentioned was the convenience of being able to work from home

without having to drive 45 minutes to work and back each day. According to faculty participant Rebecca, teaching asynchronously has allowed her to hone her technological and pedagogical skills. By taking advantage of her institution's online training, Rebecca stated she was able to make her online classes "interesting." The move to asynchronous delivery also gave her the opportunity to research and implement a variety of online platforms that she could then choose from to identify which worked best to engage her students. After teaching asynchronously, faculty participant Addie revealed the lack of face-to-face teaching meant more personal time to do things she enjoyed like working out. She also mentioned that although she used the learning management system Blackboard quite often before COVID-19, now she feels like a Blackboard "rock star." As a result, she now enters homework assignments into Blackboard formatted as a test so the system can grade it automatically, saving her time when grading. Research participant Lee concluded that because a traditional teaching environment forces most professors to teach week to week, asynchronous delivery allowed time to stay ahead. According to Lee, the material that he usually teaches face-to-face in a span of 15 weeks was completed and accessible to online students during the first three weeks of the 2020 fall semester. Lee feels teaching asynchronously is more time efficient and, as a result, allows him more time to connect with students and address concerns. He now welcomes the thought of teaching a spring or summer course because teaching online would still allow him the opportunity to go on vacation. Finally, Lee added that asynchronous delivery allowed him to avoid students who have "negative personalities" and frequently cause disruptions in a traditional classroom setting. When asked about any professional or personal benefits he may have obtained while teaching asynchronously, research participant Robert believed it pushed him to use technology he would not have otherwise. This new technology would assist him in developing his institution's first online macroeconomics

course. Finally, for faculty participant Angel, the opportunity to deliver courses asynchronously has pushed her outside her comfort zone. She describes herself as an introvert and prefers students interact with one another as part of her instruction strategy. She indicated the new modality compelled her to become an extrovert and more spontaneous.

These positive benefits associated with teaching online expressed by the participants can be remarkable indicators of asynchronous adoption (Davis, 1989; Venkatesh & Davis, 1996, 2000). A host of research concludes that perceived awards such as professional growth and academic autonomy (Mansbach & Austin, 2018), flexibility and convenience (Huang & Hsiao, 2012; Stickney et al., 2019), and administrative support (Martin et al., 2019) can attract faculty to teach online.

Negative Perceptions

All eight faculty participants discussed the challenges they experienced as a result of teaching asynchronously. A lack of student-to-instructor engagement, poor student performance, academic dishonesty concerns, limited access to institutional resources for online students, and technology illiteracy among older online students were surfacing themes that led to a negative perception of asynchronous course delivery.

Minimal Student-to-Instructor Engagement

Research participant Lee believes asynchronous delivery makes it easier for online students to go unnoticed. He believes the lack of personal attention can cause students to view themselves as just a "number." Lee saw evidence in which students were exhibiting minimal log-in time that limited course progression, resulting in poor student outcomes. Research participant Robert stated that forcing students to take online classes may have a drastic impact on their academic performance. He believes students know when online classes are suitable for their

lifestyle; therefore, the mandate to learn asynchronously will put them in a position in which they may not be successful. Additionally, Robert expressed that a challenge for him as a professor was determining the proper time to reach out to students struggling in an online environment. Without opportunities to converse face-to-face before or after class, Robert finds it difficult to understand when students need help and how to assist them. Robert stated that only about 10% of his online students are doing well in terms of academic success. He struggles between allowing students to be responsible for their own academic aggressiveness and providing help above and beyond what is needed. Participant Rebecca's challenges stem from the lack of personal attention students receive because of asynchronous course delivery. She feels the modality does not allow for a personal connection in which an instructor can understand the academic and personal challenges that affect student performance. For these reasons, Rebecca feels students can be better understood through traditional face-to-face instruction. When recalling her experience with asynchronous course delivery after the COVID-19 pandemic, research participant Nerissa described the challenge of responding to numerous emails she received from students. According to her, a traditional face-to-face setting allows for the opportunity to answer questions from multiple students in real-time. However, when teaching asynchronously, it is overwhelming and time-consuming to respond to the issues of each online student. Finally, with little instructional support from her institution and confusion among her and her colleagues as to how to design online courses, faculty participant Angel was not sure how to move forward after moving to an asynchronous environment. She was concerned that her "lack of experience in adapting to a virtual environment to teach a hands-on course was substantially lacking." Therefore, as a freshman seminar instructor, she mentioned it was "very difficult" and a "struggle" for her to conduct a course that is "inherently designed to be

interactive" and hands-on. Consequently, she did not prepare course materials until the first day of class. She feels students would be better served face-to-face. Even after her asynchronous experience, Imani's expectation of online technology is that it will eventually fail as the demand for it increases.

The need to be present is important to faculty who teach online. Research investigating faculty perceptions of online teaching effectiveness defined an effective online instructor as one who feels connected with students in the classroom and responsive to student needs (Frazer et al., 2017). Findings in Bolliger et al.'s (2019) study revealed faculty believed fostering community beyond online course instruction was essential. Faculty used strategies such as social media, cohort models, and synchronous communication to create a sense of program community to establish a connection among students and faculty. Finally, research studying online graduate students' perceptions of institutional resources and support found that students rated course-level support (individual instructor support, interactions with faculty, library) as more important than institutional level support (career services, writing center, counseling center) (Milman et al., 2015).

Poor Student Performance

After teaching asynchronously, research participant Imani expressed concern that students were not doing as well as they could be. She stated students were not pleased with only having online options to continue their education during the pandemic; therefore, both she and the students felt they would be more successful if they were in a traditional classroom environment. This finding relates to similar studies in which faculty expressed concern regarding students' ability to successfully master online content leading to poor student success outcomes (Allen et al., 2012; Seaman, 2009; Stewart et al., 2010).

Concerns of Academic Dishonesty

For research participant Addie, although she believes asynchronous learning helps her dental hygiene students become self-learners, she now appreciates how much is accomplished through face-to-face instruction. She felt that discussions regarding culture and diversity deserve live communication that engages all students within the course, especially students of color. Addie's major concern is that her department relies heavily on online testing as an assessment tool. Although precautions are taken to deter academic dishonesty, she feels testing online is considered an uncontrolled environment that offers opportunities for cheating. She prefers her department to use additional methods of assessment such as presentations and specific homework assignments.

Research seems to agree, as Reedy et. al (2021) believe "the nature and incidence of academic misconduct is changing with the widespread use of digital technology" (p. 4). Additional research further concluded that faculty were also concerned that when taking online exams at home, students could use multiple smart devices (Brown, 2018) and supplementary resources (Dendir & Maxwell, 2020) prohibited by faculty.

Students' Limited Knowledge of Technology

Research participant Ann stated that her difficulty as an online professor was associated with her students' lack of knowledge regarding technology. According to her, older students had difficulty navigating a computer keyboard and finding online course material. Consequently, Ann explained she spent more time teaching the technological aspects of online instruction rather than delivering the course content to fulfill learning outcomes. Similar findings suggest that the older population has a lower ability in using communication technology and therefore uses it to a lesser extent than younger populations (Hargittai, 2002; van der Zeeuw et al., 2019).

Minimal Student-to-Institution Interaction

As a freshman seminar instructor, participant Imani knows the importance of college resources to new students. During the research interview, Imani expressed alarm that restricting on-campus students to only asynchronous learning would do little to assist these students with their mental and physical health which she believes is integral to the student experience. Secondly, Ann voiced concerns that online students with learning differences may not receive the extra academic support needed to be successful. Also, Rebecca felt the ambiance associated with campus living is lost for online students. She stated that for some of the on-campus students, the institution was their "family" and their "comfort zone" and asynchronous delivery denied students that part of the college experience.

These responses hold merit. A 2015 study involving online graduate students concluded 62% of students agreed that online courses that contained learner support that connected to campus resources would have a positive effect on their satisfaction of online learning (Fedynich, Bradley, & Bradley, 2015). Campus resources also connect students to others outside of a classroom setting. However, being restricted to an online environment limits access to campus functions. As a result, students can experience loneliness, which can have a negative effect on academic performance (Benner, 2011) and halt persistence (Vayre & Vonthron, 2019).

Table 2 summarizes each participants' perceptions of asynchronous course delivery before and after teaching asynchronously.

Table 2: Participants' Perceptions of Asynchronous Delivery (Before and After)

Participant	Perception before teaching asynchronously	Perception after teaching asynchronously (Positive)	Perception after teaching asynchronously (Negative)
Nerissa	Specific student demographic should be taught asynchronously		Time consuming
Imani	Students would not learn well	"OK" with it; want to help improve the online process	Students would be more successful face-to-face
Ann	Great way to make extra money teaching additional courses	Increased student-to-student interaction; improved technological skills; allowed her to work from home	Less academic support for students; older students ignorant of academic technology
Rebecca	Modality requires more discipline; Students would miss key information; Difficult to give timely feedback	Improved technological skills	Challenging to connect with students on a personal level
Lee	Less student-to-student interaction; "It's not for me"	Will continue teaching online after allowed back in physical classroom; helps students engage in higher level thinking; increased teaching efficiency; can avoid in class student disruptions	Easier for students to disconnect and feel they are only a number
Addie	Increases student accountability	Improved technological skills; less time teaching, more personal time	Modality may influence cheating; time consuming
Angel	Unfamiliar with modality	Pushed to be more of an extrovert	Technology will ultimately fail; less academic and emotional support for students; questions the value for students; "Get rid of it"
Robert	Student learning will suffer	More organized; less stressed; will use online concepts in face-to-face classes; compelled to use new academic technology	Difficult to assess student learning; small percentage of his students are academically successful

SUMMARY

In conclusion, through eight semi-structured interviews, faculty participants who had never taught asynchronously were asked to express their perceptions of asynchronous online delivery before the COVID-19 pandemic. Participants were also asked to communicate their perceptions of the modality after their institution mandated them to instruct courses asynchronously due to on-campus restrictions caused by the COVID-19 pandemic.

Findings revealed that prior to the COVID-19 pandemic, faculty participants' prior assumptions regarding asynchronous delivery, the perceived student online experience, unfamiliarity with the modality, and a preference for face-to-face instruction had an impact on the participants decision not to teach online. Some faculty participants were open to the concept but never got the opportunity to teach online due to institutional restrictions.

After teaching asynchronously, faculty participants' viewpoints varied. Positive perceptions included beliefs that asynchronous online helps students become more accountable for their learning. Some faculty participants appreciated the benefits associated with teaching asynchronously, such as more time with family and the opportunity to hone their online pedagogical skills. Some faculty participants plan to implement concepts of asynchronous learning when they return to a traditional classroom environment.

Negative perceptions regarding asynchronous course delivery was the result of challenges associated with the modality. Faculty expressed challenges such as limited support from administration and fellow professors as well as the difficulty of learning new and unfamiliar technology. One faculty participant mentioned a lack of in person attention resulting in poor student outcomes while others believed students were not receiving the institutional support (tutoring, counseling, etc.) they would if they were on campus. Still, participants expressed concerns of potential academic dishonesty and older students' limited knowledge of technology.

CHAPTER FIVE: DISCUSSION

INTRODUCTION

The purpose of this study was to identify and understand factors that prevent faculty engagement in teaching an asynchronous online course and their perception of the teaching modality once required to do so because of the COVID-19 pandemic. This chapter discusses the possible factors that may have deterred research participants' from participating in asynchronous online course delivery and their beliefs about that modality of online learning using the primary research questions as a framework. Furthermore, the chapter includes the researcher's recommendations for future research, implications for institutions interested in asynchronous course delivery, and the limitations and delimitations associated with the study. The chapter concludes with a comprehensive summary.

SIGNIFICANT FINDINGS OF THE STUDY

According to this research, faculty perceptions of asynchronous course delivery before teaching the course was largely based on their prior assumptions and experiences, or lack of experience, regarding online learning; their perception of the student experience during asynchronous course delivery; their preference for teaching in a traditional classroom setting; and the perceived advantages and disadvantages of teaching asynchronously.

Faculty participants' viewpoints varied regarding asynchronous online course delivery after being mandated to do so by their institutions. Positive viewpoints were influenced by conclusions drawn from the faculty's collective online course development and delivery

experience; the perceived advantages and benefits received by their online students; and the perceived professional and personal benefits associated with teaching asynchronously. Each participants' negative viewpoints were influenced by challenges faculty encountered during their asynchronous course development and teaching experience.

Faculty Assumptions and Preferences

The findings imply that the participants' initial perceptions of online learning stem from personal experiences as online students themselves; or their unsubstantiated assumption or direct observation that poor learning outcomes ensue when students lack student-teacher interaction. Consequently, some professors prefer traditional face-to-face teaching because it feels more comfortable than online instruction and presents more opportunities for student engagement (Karaduman & Mencet, 2013). Professors participating in this research felt likewise, explaining that asynchronous course delivery leaves no possibility for reading nonverbal cues that can be used as impromptu, informal assessments that gauge student understanding of the presented material. These findings agree with Wingo et al.'s (2017) research which highlight that faculty are less likely to use a technological system if they believe that system is unproductive. Used as the bases of this researcher's theoretical framework, research conducted by Venkatesh and Davis (2000) refers to this in their Technological Acceptance Model as job relevance, a major factor contributing to the perceived usefulness of a technological system.

For some professors, moving from an in-person lecture-based format to more of an online facilitator-based format of instruction can be difficult. For professors with limited formal pedagogical training, an abrupt adjustment to teach online usually results in using the familiarity of in-person instruction to dictate a bias toward online learning (Markova, 2014; Martin et al., 2019; Martinho et al., 2021).

Importantly, these attitudes shaped their preference for traditional face-to-face instruction throughout their teaching careers because the faculty participants' perception was that asynchronous online delivery was inferior to other hybrid, synchronous, or face-to-face teaching modalities (Alleman & Seaman, 2012). These findings agree with Wingo et al.'s (2017) research which highlight that faculty are more likely to use a technological system if they believe that system is productive. Used as the bases of this researcher's theoretical framework, research conducted by Venkatesh and Davis (2000) refers to this in their Technological Acceptance Model as job relevance, a major factor contributing to the perceived usefulness of a technological system.

Institutional Disinterest

Faculty participants' reasoning for not teaching asynchronously was based on the decision of the institutions in which they were employed. It is interesting to note that some faculty want to teach asynchronously but cannot, due to institutional or departmental restrictions. Still, their perception of asynchronous online course delivery was more open and centered around personal and professional advantages associated with the modality.

Perceived Professional and Personal Benefits

In this research, participants described personal benefits such as more time to connect with family, students, and themselves through self-care, as well as monetary benefits in the form of stipends offered by their institutions. Perceived professional benefits included enhanced technological and pedagogical skills, the ability to stay ahead of the teaching schedule, and the impact of what students might experience when learning online. For one participant, as a result of the mandate to teach asynchronously, he was able to develop the very first online macroeconomics course at his institution. Importantly, previous research has concluded that

faculty are influenced to teach online when they perceive specific benefits associated with the modality (Hang & Hsiao, 2012; Mansback & Austin, 2018; Stickney et al., 2019).

Student Benefits

Faculty participants expressed a positive perception of asynchronous online delivery based on the perceived benefits it offered to students. Evidence of higher-level learning, student accountability, and academic resilience contributed most to the participants' viewpoints. Identifying and addressing computer literacy issues that often go unnoticed was also a determining factor.

This positive, post-teaching perception of asynchronous delivery may derive from the belief that certain fundamental pedagogical aspects that result in student learning in a traditional classroom setting, such as the achievement of learning outcomes and class participation, could also be obtained by online students, without the physical presence of a professor. Although literature exist that question the reliability (Walters et al., 2017) and quality (Hodges et al., 2020; Mitchell et al., 2015) of online learning from a faculty member perspective, Wingo et al. (2017) highlight in their research that as faculty are convinced academic technology can help accomplish specific tasks, it drastically impacts their belief regarding its usefulness.

FACULTY EXPERIENCES ASSOCIATED WITH TEACHING ASYNCHRONOUSLY

Faculty participants' perceptions after developing and teaching courses asynchronously seems to be a result of engaging in the online experience itself. After teaching asynchronously due to the COVID-19 pandemic, participants revealed a positive perception of the online modality. Evidence of their optimistic perceptions includes (a) faculty integrating online concepts into face-to-face courses; (b) believing students and faculty new to asynchronous

learning would adapt and do well; (c) demonstrations of increased student-to-student engagement; and (d) an enhanced confidence in the ability to teach asynchronously.

Research studying faculty motivations for not teaching online found professors with minimal online experience were more favorable of traditional face-to-face education, than experienced professors (Hunt et al., 2014). Earlier research found that faculty with more experience teaching online reported fewer teaching barriers (Lloyed, et al., 2012) and were more supportive of an online format (Mandernach et al., 2012) when compared to faculty with less online experience. Lastly, research conducted by Glass (2017) found faculty spoke more positively toward online learning when they were able to design courses that reflected their pedagogical perspectives.

In contrast, this researcher's findings conclude that perceived issues created as a result of teaching asynchronously also influences the perception of that modality. Each faculty member participating in this research expressed challenges associated with the development and delivery of asynchronous courses. After their asynchronous teaching experience, most faculty felt that due to the lack of student engagement and personal attention, students went unnoticed, lacked academic discipline to be successful, and needed more academic and technical support. For one participant, the perceived challenging experience of developing and delivering an online course originally designed to promote student-to-student interaction, amplified her lack of trust and comfort in asynchronous delivery. Still other faculty believed their institutions were not well prepared to move to an asynchronous online environment. As a result, faculty felt there was minimal instructional support such as a lack of standardization and guidelines for developing and delivering courses asynchronously. However, although some faculty participants did receive

online training, one participant felt the workshops focused more on navigating the technology itself rather than how to engage student learning using the new modality.

Earlier research concludes that in regard to online teaching, faculty were concerned with increased workload which diminishes time for professional research and their social lives (Lehman & Conceicao, 2011; Mitchell et al., 2015). Similar research discovered administrative mandates (Lehman & Conceicao, 2011) and a lack of technological, pedagogical, and administrative support and resources (Lederman, 2020b; Martin et al., 2019) had a definite impact on faculty's perception of online teaching. Finally, additional research investigating faculty's perception of online course delivery as it relates to student learning concluded that faculty perceptions were influenced by the challenges of teaching to underprepared students (Evans & Myrick, 2015); the ability to effectively engage students online (Horvitz et al., 2015), and the quality of online content as it relates to student learning (Jaschik & Leaderman, 2014; Pundak & Dvir, 2014; Shelton, 2014). Understanding the challenges and successes of asynchronous course development and delivery can help institutions of higher learning develop online programs that appeal to the needs of the faculty.

IMPLICATIONS FOR EDUCATIONAL INSTITUTIONS INTERESTED IN ASYNCHRONOUS ONLINE DELIVERY

The COVID-19 pandemic led institutions and faculty alike to move toward online learning at a faster pace than anyone had expected. Despite this disruption, this research as well as others acknowledges the fact that some faculty choose not to engage in asynchronous online instruction. Institutions willing to begin or expand its online resources must be sensitive to the needs of those responsible for teaching the material. To help institutions understand those needs,

this research clearly identifies the successes and challenges faculty experience when deciding to teach asynchronously.

Invest in Professional Development

Although faculty are expected to have some online experience upon hire, it is usually not assumed that previous online experience could influence their decision not to teach online. Because of the abundance of online degree and certificate programs, some faculty may first experience online learning as online students. Negative experiences as online students can manifest into negative perceptions as online faculty. As the research revealed, experiences as online students led to the assumption that asynchronous course delivery lacks personal attention. Some participants also assumed asynchronous delivery would not allow students to receive feedback in a timely manner. Both assumptions they felt would ultimately affect student success. To dispel this myth, institutions should consider offering professional development that allows faculty the opportunity to explore the advantages of asynchronous teaching and its ability to foster student-instructor engagement. A professional development method that allows faculty to experiment with learning management platforms before developing an online course could reap huge benefits. A "try before you buy" method could help faculty feel more comfortable about creating courses that engage students and provide quick response times to answer questions and address issues.

Invest in Instructional Designers

Institutions that invest in resources such as online instructional designers have shown promise in helping faculty develop online courses that meet the needs of their students. At its core, instructional design is the act of creating an "instructional experience which makes the acquisition of knowledge and skill more efficient, effective, and appealing" (Merrill et al., 1996,

p. 5). Instructional designers use best practices to help faculty create thoughtful programs and design courses that focus on engaging the student, provoke higher order learning and promote feasible learning outcomes. Faculty can use the designer's expertise to find the perfect blend of media, activities, and discussions to provide students with a robust and engaging course.

Instructional designers use universal design models to create courses that are accessible and inclusive for all students. The concept of universal design attempts to ensure that academic programs, courses, and curricula are appropriate for students of all physical and academic abilities. A model popular with instructional designers is the Universal Instructional Design (UID) that focuses on promoting teaching methods to help faculty create and implement learning activities that reduce the need for individual accommodations and do not inadvertently exclude students with disabilities or diverse social identities. Principles associated with UID can help faculty think differently about student diversity and how those differences can impact their learning experience. The process of determining what are essential components of a course must be reconsidered to allow everyone to participate. Using UID, faculty can develop courses that exclude timed exams or encompass longer testing times to accommodate students who need time to process information or have difficulty reading or speaking English. UID considers that course mastery can be assessed in many forms and each student should be given equal opportunity to demonstrate knowledge of the material.

The introduction of e-classrooms is often employed by designers to help faculty engage with students and students with one another. These asynchronous electronic classrooms are accessed within the learning management system and allow students to connect by discussing course content. These interactions can then be analyzed by faculty to assess student comprehension of the subject matter. E-classrooms are customizable. Faculty can use individual

email systems and assignment areas to provide one-to-one feedback. Additionally, parameters can be set to control the quality and frequency of post and the level of expected peer-to-peer and student-instructor interaction.

Invest in Relevant Technology

A concern for faculty participating in this research was the perception that students who learn asynchronously would have minimal, if any, interaction with campus-based resources such as mental health counseling and academic support. In addition, social events and other experiences associated with campus living usually do not apply to students who study remotely. Unfortunately, the lack of these critical resources and interactions, combined with feelings of solitude often associated with asynchronous learning, can reduce retention rates among these students. To help students feel connected, colleges and universities should invest in initiatives and technology that allow online students to engage with academic and recreational resources on campus.

A strategy used by most campuses to help students feel connected to the institution is offering quality online orientations. Introducing short videos depicting student-centered departments and the resources they offer is essential for incoming online students. Additionally, online students should be allowed to communicate with staff and faculty at their own convenience, and documentation required to access campus-based resources should be digitally accessible. Secondly, providing webinars involving commencement protocols and career services presentations can help remote students feel as if they are not missing out on relevant information. Also, many colleges and universities offer academic advising through teleconferencing to help guide students through their programs of study. Events involving on-campus speakers can be livestreamed via video platforms that allow online students to participate

in the conversation. Finally, institutions can connect with new online learners by recruiting student ambassadors who can answer questions from a student perspective and share their college experiences.

Provide a Variety of Resources

Although many higher education institutions participate in online course delivery, administrators may not be aware of the faculty's strong preference for face-to-face instruction. This oversight can unintentionally make the transition to online more difficult for professors, leading them to speculate there is minimal administrative support. Institutions can help facilitate a smooth transition to online by allowing faculty to ease into asynchronous course delivery by beginning with hybrid courses. Hybrid courses give faculty the flexibility to teach in an online and face-to-face format simultaneously. This method empowers faculty to engage with students in an in-person environment while learning the subtleties of online instruction. It is worth noting that two participants in this study plan to follow this suggestion, as they plan to integrate concepts of online instruction into their face-to-face classrooms. In addition, higher education institutions should implement and support collaborative teaching, in which traditional faculty are given the opportunity to co-teach online with more experienced online faculty within the same discipline. Faculty who prefer a traditional form of instruction can work alongside a respected peer to gain the skills associated with online teaching before gaining the confidence to venture out into the asynchronous online environment independently. Faculty committees consisting of seasoned online faculty should also be encouraged. Members of this group would be a great resource for novice faculty who are unsure of their online pedagogy abilities. Pasadena City College in California implemented a Faculty Committee on Online Education recommendations. The purpose of this committee is to provide recommendations concerning best practices

involving distance education and online learning that assist faculty in making competent decisions regarding instructional design and delivery.

Support Faculty Who Desire to Teach Online

Interestingly, results from this research revealed some faculty prefer to teach asynchronously; however, the institutions in which they are employed did not allow them the opportunity. Unfortunately, disinterest in online instruction exists to some degree among higher education institutions that, like some faculty, prefer a more traditional mode of instruction (Mitchell et al., 2015). However, institutions that embrace their faculty's desire for asynchronous online teaching can use that passion to provide additional revenue through online student enrollments.

Due to the COVID-19 pandemic, institutions of higher learning that offered a limited number of online programs began to expand their inventory. As a result, institutions began to reap the benefits of enrolling a student population that is largely overlooked by more traditional colleges and universities. Increased online enrollments have the potential to provide additional revenue. Revenue truly needed after substantial declines in face-to-face enrollments and to offset the cost of new expenses accrued by providing educational technology to attract new online students and retain continuing students. The global and U.S. e-learning markets are predicted to reach $336.98 billion by 2026 (Syngene Research, 2019) and $6.22 billion by 2022 (Technavio, 2018) respectively. While higher education institutions were seeing overall declines in enrollment of nearly two million students between 2012–19, during that same timeframe, online enrollments grew from five to seven million (Schroeder, 2022). Faculty and students alike predict increases in hybrid online courses post the COVID-19 pandemic (Guppy et al., 2022).

Conclusively, institutional bias toward asynchronous delivery could have a negative impact on obtaining additional revenue from students who require remote learning. This revenue can be used to provide faculty with incentives for professional development and academic research. Also, allowing faculty the opportunity to teach asynchronously can improve overall job satisfaction and faculty buy-in for future administrative endorsed initiatives (Luongo, 2018).

Use Incentives

For many participants of this research, the advantages of teaching asynchronously were a major influence contributing to a more positive attitude toward the modality itself. Specifically, the professional and personal conveniences asynchronous delivery offers were a welcomed and unexpected benefit. One such convenience is the ability to teach remotely, which before the COVID-19 pandemic was not a necessity for most higher education institutions. As a result, faculty in this research reported having less time-consuming commutes to campus, more time for professional development and research, and the ability to stay ahead of a busy teaching load.

Colleges and universities committed to their faculty's mental health should use the opportunity to teach remotely as an incentive to recruit and retain faculty who after the pandemic prefer to teach the majority if not all of their courses online. More than ever, faculty are working at an exhaustive pace and find it difficult to accomplish a work-life balance. In fact, more than one-third of faculty are considering career changes or retirement due to burnout (Tugend, 2020). A generational shift is also taking place in higher education. As the older faculty members retire, a more tech-savvy age group entering the higher education workforce will have different expectations of what a teaching environment should include.

One study suggests college presidents may not be ready for such change (Amoruso & Elliott, 2021) albeit research continues to show working remotely during the COVID-19

pandemic does not decrease productivity (Elliott, 2021; Maurer, 2020). Online giants such as Western Governors University and Southern New Hampshire University continued to flourish amidst the pandemic due to an academic infrastructure that relies heavily on remote instruction. An institutional policy in support of flexible working models demonstrates administration is sensitive to the needs of its faculty.

LIMITATIONS

The result of this study is not without its limitations. Because the interviews took place during a pandemic, the researcher was limited to conducting virtual interviews. Although using technology to conduct the interviews allowed the researcher to connect with the research participants with little inconvenience, person-to-person interviews offer a different level of engagement. The researcher was unaware of potential body language that participants may have exhibited that could have confirmed or contradict the participants response to the interview questions. Also, without being present, researchers are unsure if the participants are answering the questions truthfully or being coached by someone in the room. Finally, with person-to-person interviews, the researcher has the opportunity to control the environment in which the interview will take place such as requesting a location with minimal distractions. Although participants in this research were in the comfort of their respective homes, having to perform an interview in their kitchen or living room could seem awkward and unnatural, which could affect responses to the interview question, thereby affecting the research results.

In addition, the researcher sought to understand the perception of asynchronous online delivery from three different types of higher learning institutions (Community Colleges, Public Universities, and a Historical Black University). Participant invitations were sent to faculty members of each institution; however, faculty from only two of the three institutions responded

to the email invitation. Faculty from the Historical Black Universities failed to respond. This limitation resulted in a smaller sample size than anticipated. Therefore, this research includes only a small representation of faculty members involved in online delivery and thereby may not result in a universal conclusion among the general population.

DELIMITATIONS

This researcher also observed delimitations within the methodology process that could have an impact on the research findings. The researcher excluded faculty from online colleges and universities because they did not fit the appropriate sample selection. This exclusion, coupled with purposeful sampling based upon the research criteria (employed professor for two years, never taught an asynchronous online course, institution requires that instructors participate in emergency remote learning) again resulted in an insufficient sample size affecting generalizability.

RECOMMENDATIONS FOR FUTURE RESEARCH

Previous research concludes faculty does not accept online education as a reliable teaching modality (Allen et al., 2012; Ruth, 2018). This fact, coupled with higher education institutions' mandate to teach asynchronously due to the COVID-19 pandemic, led researchers to believe the event would further damage faculty's views toward online teaching and decrease the quality of the online course content (Ciabocchi et al., 2016; Conceicao & Lehman, 2011; Hodges et al., 2020; Lederman, 2020). With the events surrounding the COVID-19 pandemic, it seems as if virtual learning within higher education has become—and will remain—a common part of everyday life. Moving forward, it will be faculty who give insight into the future rewards and challenges of online course delivery. To ensure their buy-in, future research that examines

educators' perceptions and perspectives regarding online learning should continually be explored.

Research from this study reveals that faculty new to online teaching expressed a variety of perceptions associated with asynchronous course delivery. As faculty continue to gain experience in online teaching, satisfaction and self-efficacy in instructing in an online environment are influenced (Horvitz et al., 2015). Future studies should address whether the perceptions of faculty who are novices to online learning shift over time, and if so, why. Although this research focused on participants who had not taught online, most faculty are willing to teach remotely. Further research investigating the similarities and differences in perceptions of faculty who choose to teach online and those who choose otherwise would bring additional insight into helping institutions explore strategies that encourage faculty to support online learning. Faculty perceptions as they relate to work dynamics such as tenured versus non-tenured or adjunct versus full-time should also be explored.

Furthermore, to keep the researcher and participants safe during the pandemic, interviews were conducted virtually. Research taking place in an uncontrolled environment can potentially affect interview responses and alter research findings. In addition, results were derived from faculty of various disciplines. Disciplines of study impact course content and how it will be developed. Therefore, similar research using in-person interviews involving faculty from a single discipline may reveal alternative results taking into account the disciplines history and culture that could affect faculty perceptions of asynchronous course delivery.

Because of the COVID-19 pandemic's impact on higher education and online learning, more research is needed to understand its effects on those who teach and learn online. Although the purpose of this study focused on asynchronous online delivery, more attention should be

given to faculty who currently teach or have taught each modality (traditional, hybrid, asynchronously, face-to-face, and web-based) to determine if perceptions of online teaching change as the modality changes. This knowledge can help institutions decide the needs of online faculty across modalities increasing satisfaction and decreasing online resistance.

Lastly, in many ways faculty performance is linked to student success. Therefore, research that investigates online students' perception of faculty performance after the COVID-19 institutional mandate could encourage colleges and universities to create policies and strategies that identify and address the issues of novice online faculty and students.

CONCLUSIONS

Faculty perceptions play an important role in predicting their feelings regarding the usefulness of online education. Those perceptions can be motivated by numerous factors, professional or personal, that influence excitement or hesitancies to teach online. Because of the benefits of academic technology in higher education and the impact of the COVID-19 pandemic has had on online learning, identifying and understanding those perceptions are paramount. This research sheds light on the perceptions of eight faculty members who prior experiences, assumptions, and preferences deterred them from participating in asynchronous course delivery. After participating in the design and implementation of an asynchronous course due to COVID-19, the perceptions of the research participants varied. Positive perceptions were influenced by the course development and online teaching experience itself, as well as the perceived benefits online teaching offers to those who teach it and those who choose to learn using it. Negative perceptions were associated with the challenges encountered as a result of the course development and delivery process.

To promote positive perceptions of asynchronous course delivery among faculty, participating institutions would be wise to support faculty training that help professors understand the functional and pedagogical advantages of academic technology. Professional development in the form of faculty training can help resistant faculty feel more comfortable about teaching online. Models can include the use of instructional designers that guide faculty through the design and development of courses that align with academic standards and meet accessibility guidelines. Sessions can take place through a series of one-to-one or group workshops conducted face-to-face, synchronously, or asynchronously. During the development process, designers can provide individualized feedback to promote student engagement, ensure appropriate assessments, and drive learning outcomes. Paid stipends can be used as incentives to meet specific design milestones and keep the process moving forward. Designers can also assist with course review and beta testing when course development is completed. Those faculty who have completed the program can then be promoted to support and guide colleagues through the same faculty training.

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APPENDIX A: INTERVIEW QUESTIONS

Interview Questions

1. What was your first experience with online education in any form (Learning Management System, online class, professional development, certification, etc.)

2. Before COVID 19, what was your overall perception/apprehensions regarding asynchronous delivery? What factors do you think made you feel that way.

3. How did you feel when your institution/division chair asked you to convert your course(s) to a 100% asynchronous online format? What course(s) were you asked to deliver in that format?

4. Walk me through your actual asynchronous online experience, from course development to teaching the online course.

5. Now that you have delivered an asynchronous course, what is your perception of that mode of online education/teaching. What experiences do you feel shaped those perceptions?

6. Describe any personal/professional benefits you have obtained from teaching an asynchronous course that you may not have gotten from face-to-face delivery.

7. How did your asynchronous online experience affect your perception of:

    1. Your institution's leadership

    2. Students learning asynchronously

    3. Other online instructors

APPENDIX B: IRB APPROVAL LETTER

FERRIS STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD FOR HUMAN SUBJECT RESEARCH
1010 Campus Drive FLITE 410 Big Rapids, MI 49307 | (231) 591-2553 | www.ferris.edu/irb

Date: October 5, 2020

To: Susan DeCamillis, John Neal
From: Gregory Wellman, R.Ph, Ph.D, IRB Chair
Re: IRB Application *IRB-FY20-21-26 Perceptions of Faculty About Online Teaching*

The Ferris State University Institutional Review Board (IRB) has reviewed your application for using human subjects in the study, *Perceptions of Faculty About Online Teaching(IRB-FY20-21-26)* and approved this project under Federal Regulations Exempt Category 2.(iii). Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) if at least one of the following criteria is met:
The information obtained is recorded by the investigator in such a manner that the identity of the human subjects can readily be ascertained, directly or through identifiers linked to the subjects, and an IRB conducts a limited IRB review to make the determination required by §46.111(a)(7).

Your protocol has been assigned project number IRB-FY20-21-26. Approval mandates that you follow all University policy and procedures, in addition to applicable governmental regulations. Approval applies only to the activities described in the protocol submission; should revisions need to be made, all materials must be approved by the IRB prior to initiation. In addition, the IRB must be made aware of any serious and unexpected and/or unanticipated adverse events as well as complaints and non-compliance issues.

This project has been granted a waiver of consent documentation; signatures of participants need not be collected. Although not documented, informed consent is a process beginning with a description of the study and participant rights, with the assurance of participant understanding. Informed consent must be provided, even when documentation is waived, and continue throughout the study.

As mandated by Title 45 Code of Federal Regulations, Part 46 (45 CFR 46) the IRB requires submission of annual status reports during the life of the research project and a Final Report Form upon study completion. Thank you for your compliance with these guidelines and best wishes for a successful research endeavor. Please let us know if the IRB can be of any future assistance.

Regards,

Gregory Wellman, R.Ph, Ph.D, IRB Chair
Ferris State University Institutional Review Board