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Community College Faculty Members' Experiences using Instructional Technology: The Sudden Transition to Emergency Remote Teaching

Joy Bauer
University of Arkansas, Fayetteville

Community College Faculty Members' Experiences using Instructional Technology: The Sudden Transition to Emergency Remote Teaching

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by

Joy Bauer
Missouri Southern State College
Bachelor of Science in Business Education, 1983
Pittsburg State University
Master of Science in Educational Technology, 2013

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University of Arkansas

This dissertation is approved for recommendation to the Graduate Council.

_____
Kenda Grover, Ed.D.
Dissertation Director

_____
Kit Kacirek, Ed.D.
Committee Member

_____
Adam Morris, Ed.D.
Committee Member

Abstract

The rapid spread of COVID-19 during the spring of 2020 warranted an unprecedented change as faculty were required to convert course content and quickly learn to use new instructional technology in order to prepare for emergency remote teaching. The purpose of this qualitative case study is to explore how faculty experienced this sudden disruption of learning and rapid transition to emergency remote teaching. How do we assist faculty in continuing to use innovative technology? What resources or support are needed to lessen faculty resistance to change? By applying Kübler-Ross' Change Curve as an overarching model, the researcher seeks to show that the change to remote and/or online instruction necessitated by the COVID-19 Pandemic contributed to faculty intentions for continued use of technology.

Acknowledgements

Thanks to My Heavenly Father for His many blessings, my family and friends. Thank you to those who have lent an understanding ear, cheered me on when I stalled out, and brought me lunch when I refused to take a break.

I would like to express my deep appreciation to the Adult and Lifelong Learning program faculty, especially to Dr. Kit Kacirek for her words of encouragement and motivation during our weekend sessions and to Dr. Kenda Grover, my dissertation chair, for her patience, continuous support and constructive assistance throughout the planning, development, and writing phases of this project.

Dedication

This dissertation is dedicated to my friends and family, especially to my six grandchildren. I encourage you to dream big, set goals, create a plan, and follow through to the finish. I could not have accomplished this without your love and support.

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CHAPTER 1

Introduction

In 2020, the coronavirus, COVID-19, spread rapidly worldwide, creating a viral pandemic. Between January 2020, when the first case of COVID-19 was documented on U.S. soil and December 2020, the United States had close to six million positive COVID-19 cases and more than 200,000 deaths, one of the highest death rates in the world (Balea et al., 2020; Carter & May, 2020). The national, state, and local governments responded to the Center for Disease Control (CDC) recommendations to reduce the spread of the virus and to reduce the risk of illness and possible death.

Institutions of higher education rapidly responded to the CDC recommendations and governmental mandates by converting face-to-face classes to remote delivery, which enabled students to complete the spring 2022 term when colleges abruptly suspended face-to-face courses. Many colleges converted face-to-face courses to remote delivery within a matter of days up to two weeks (Colclasure, et al., 2021; Garrett et al., 2020; Johnson et al., 2020). This situation created a massive challenge for colleges and universities, where the evolution, adoption, and use of technology has not paralleled the evolution of technology in other sectors, such as business solutions (Burkoski et al., 2019; Leigh & Kraft, 2017; Otto & Oosthuizen, 2018).

Consequently, instructors who were new to online teaching and had little to no formal training with pedagogies or best practices for online teaching and learning were profoundly affected. They were forced to quickly make the transition and implement instructional technologies as colleges rushed to move classes online due to campus closures in response to COVID-19. This contrasted with higher education's historically slow adoption of technology,

particularly for teaching and learning, to which faculty resistance has been cited as a major contributor (Akroyd et al., 2013; Bolliger & Wasilik, 2009; Johnson et al., 2012; Martin et al., 2020).

Distance Education

The evolution of online instruction and technology adoption has been slow, but in recent years, institutions of higher education have exponentially increased online course offerings (Hachey et al., 2013; Ruth, 2018). In the Fall 2019 semester, more than seven million students were enrolled in any distance education course(s) at degree-granting postsecondary institutions. During the Spring 2020 semester, this pattern was accelerated due to the rapid outbreak of the COVID-19 virus in the United States necessitating the rapid pivot to ERT, Emergency Remote Teaching. In the Fall 2020 semester, the number of students enrolled in any distance education course(s) nearly doubled, exceeding fourteen million students (U.S. Department of Education [USDE], 2021).

In their historical account of the evolution of distance education and the prevalence of remote instruction, Anderson and Simpson (2012) highlighted key developments and challenges with the first generation of distance education, which they defined as print technology characterized by a didactic teaching style. The instructor was the disseminator of information, with the learner as the recipient. Faculty commonly used technology such as overhead projectors to deliver the course content.

The second generation introduced the ability to broadcast using technologies such as radio and television. In higher education, emphasis for the second generation focused on high-quality courses designed for large enrollments. Faculty often taught these courses in live settings using video conferencing options while students at other locations joined the class by interactive

video with audio capabilities. Some faculty teaching courses via video conferencing used additional technology, such as a learning management system, to augment the learning experience and/or to communicate with students (Gaddis, 2020). Community colleges in particular were early adopters, offering this form of synchronous distance education to off-campus sites for as much as 20 years.

Subsequent generations have brought exponential change to distance education with a focus on the social construction of knowledge and interaction. Notably, the internet, desktop computers, laptops, tablets, and software development presented an opportunity for new modalities of instruction. Faculty teach courses in an online environment using additional technology specifically designed for the educational environment, such as learning management systems (Bleed, 1998; Gaddis, 2020; Perry & Pilati, 2011; Washington et al., 2020), content authoring tools, and web conferencing technologies (Johnson et al., 2020). These technologies provide flexibility for both the learner and instructor, and the potential to achieve the desired interaction in course delivery. Again, community colleges took the lead in the development of online courses for core general education requirements and general education electives.

Colleges historically adopted available technology for the delivery of instruction, support of student learning, and support of faculty instruction. While these tools have been widely adopted for both online and blended courses (courses delivered through a combination of face-to-face instruction and online learning) prior to the COVID-19 pandemic, the tools have not been as widely used to supplement teaching and learning in traditional face-to-face courses. Even though a college's learning management system may be available for faculty to use with all courses, there is a great divide in usage regardless of the mode of delivery. Some instructors who teach face-to-face classes choose to use features of the learning management system to support

student learning in their classes. Other faculty choose to use limited features or not at all, excluding what may be mandated by the institution, such as posting the syllabus and/or grades (Scroggins, 2021).

Impact of the COVID-19 Pandemic on Course Delivery

The Changing Landscape of Online Education (CHLOE) report seeks to annually report various topics related to the growth and progression of online learning. The fifth annual report, CHLOE 5, focused on colleges' transition to remote teaching in the spring of 2020. A total of 308 chief online officers (COO) participated in the survey in May 2020, when institutions were wrapping up the first semester of remote courses. The types of institutions represented were similar to those participating in previous CHLOE surveys, allowing the CHLOE 5 sample to be a reasonable representation of U.S. higher education (Garrett et al., 2020).

According to the CHLOE 5 Report, most institutions converted an average of 500 courses from face-to-face to online. The report stated that the pivot profoundly affected 50% of the faculty, 51% of the undergraduate students, and 27% of the graduate students at U.S. institutions who had never taught or enrolled in an online course (Garrett et al., 2020).

As detailed in the report, faculty preparedness was cited as the greatest challenge in making the rapid pivot to quickly convert courses to remote instruction. Institutions expeditiously garnered resources to provide additional professional development for faculty members, created open forums to field questions, and scheduled individual web conferences to address course-specific needs (Johnson et al., 2020; Quezada et al., 2020; Schlesselman, 2020). On average, 50% of an institution's faculty required assistance in making this sudden pivot to remote instruction. An even greater challenge was assisting part-time faculty who were holding

full-time positions off-campus, in addition to their adjunct teaching assignments (Garrett et al., 2020).

Gonzalez-Ramirez et al. (2021), Hodges et al., (2020), and Lederman (2020) also cited a clear distinction between planned online teaching and Emergency Remote Teaching (ERT). During the rapid transition to remote instruction, faculty lacked the opportunity to be informed and knowledgeable about pedagogical approaches. In addition, learning activities designed for face-to-face classes often did not easily translate to a remote format (Colclasure et al., 2021; Johnson et al., 2020; Landrum, 2020).

While community college faculty may have had a slight advantage in making the transition due to online learning historically being more prevalent in the community college, multiple studies showed that colleges reported varying levels of support available for both students and faculty in making this transition (Hart et al., 2021; Johnson et al., 2020). As a result, often the burden to quickly convert courses to remote delivery primarily fell on faculty with little or no experience in online course design and/or enough time to fully develop online courses. Multiple studies revealed that faculty recognized and reported a gap between the quality of hastily prepared courses for remote instruction and carefully designed online courses (Colclasure et al., 2021; Garrett et al., 2020; Johnson et al., 2020). COOs reported dissatisfaction with the resulting remote courses, citing faculty-to-student interaction, enhanced student orientation, and the introduction of quality standards and standardization of technology as areas of improvement needed for the upcoming fall semester, if courses were to be offered in the same format (Garrett et al., 2020). Siegel et al., (2017) found faculty typically were afforded too little support for developing this new knowledge and the skills required to use technologies associated with online learning. However, in the CHLOE 5 survey, most COOs rated the pivot as ‘very successful’ in

spite of the challenges and deterrents faced during the semester with courses leaving much to be desired (Garrett et al., 2020).

Technologies, such as learning management system features and video conferencing, were essential in making the pivot possible. Chief online officers participating in the CHLOE 5 survey reported the acquisition of additional technology was a significant additional expense for the institution. For instance, web conferencing software was required, along with laptops and internet access (Garrett et al., 2020). Funding for much of these technologies was a direct benefit of the Coronavirus Aid, Relief, and Economic Security (CARES) Act funding provided to higher education. Funds were designated to improve distance learning, information technology, equipment, Wi-Fi connectivity, and services related to COVID-19 (Finkel, 2020; Running Bear et al., 2021). The CHLOE 5 Report, along with other sources, cited an additional challenge in faculty overcoming mixed feelings over the forced nature of the pivot and entrenched attitudes of many campus-based faculty who were skeptical or openly opposed to online learning (Garrett et al., 2020; Gonzalez-Ramirez et al., 2021; Johnson et al., 2012). Suddenly, faculty were required to quickly convert traditional courses to some form of internet-based remote instruction to aid their stranded students with an uncertain time frame to return to a traditional form of delivery.

Problem Statement

Historically, faculty in higher education have been reluctant to explore and adopt new teaching modalities, especially instructional technology, to enhance student learning. However, despite many faculty members' negative perception of the effectiveness of online classes, the COVID-19 Pandemic necessitated that they begin using new technology and/or existing technology, or to embrace its use in different ways. It is unknown what impact the pandemic will have on faculty who are resistant to developing competence using different teaching strategies and techniques.

Further research is needed to 1) understand the source of faculty resistance to change, generally, and to improving teaching practice, specifically, and 2) provide administrators and staff responsible for faculty professional development with information to help them navigate and alleviate the resistance. Higher education institutions should have an established culture of change and should be at the forefront of developing innovative teaching methods to meet the shifting needs of a diverse student body. But many faculty are unwilling to develop themselves professionally, and cling to familiar and outdated routines. This is problematic for colleges and universities, for whom student satisfaction and attrition is an issue.

Definition of Key Terms

*Community College: "*A 2-year government-supported college that offers an associate degree" (Merriam-Webster, 2002, p. 251)

Community College Faculty: Instructors who likely hold a master's degree and have experience in the occupation related to their discipline (Finley & Kinslow, 2021); for the purposes of this study, faculty will be limited to those who hold full-time positions.

Distance education: Beginning with print technology, distance education evolved to include television and broadcast technologies with minimal interaction. Distance education in its' present form includes multiple modalities of course delivery through the use of the internet and learning management system platforms promoting active learning and interaction with others in the course (Anderson & Simpson, 2012; Perry & Pilati, 2011).

Online learning: Learning that takes place over the internet using technologies, in conjunction with careful instructional design and planning based on a systematic model for design and development (Branch and Dousay, 2015)

Emergency Remote Teaching (ERT): A temporary shift of instructional delivery to an alternate delivery mode due to crisis circumstances (Colclasure et al., 2021; Head et al., 2002).

Asynchronous: "Communication that allows learners and instructors to communicate anytime, anywhere, and thus offers flexibility to learners to engage in the course materials that fits with their lifestyle and commitments" (Stavredes, 2011, p. 169)

Synchronous: "Communication that provides a venue for instruction through real-time presentations and demonstrations. It allows learners to ask questions with an immediate response and follow-up questions to clarify understanding" (Stavredes, 2011, p. 169)

COVID-19: COVID-19 was identified in Wuhan, China in December 2019. COVID-19 is caused by the virus severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), a new virus in humans causing respiratory illness which can be spread from person-to-person (Centers for Disease Control and Prevention [CDC], n.d.)

COVID-19 Pandemic: An event in March 2020 caused by the spread of COVID-19 that forced the sudden closure of over 200 colleges and universities in the United States (Mason & Mason-Bennett, 2021).

*Innovation: "*An idea, practice, or object that is perceived as new by an individual or other unit of adoption" (Rogers, 2003, p. 12).

Technology: The term "technology" is often used as a synonym for innovation. Technology is a design for instrumental action that reduces the uncertainty in the cause-effect relationship involved in achieving a desired outcome. Technology almost always represents a mixture of hardware and software (Rogers, 2003, p. 13).

Traditional instruction: An instructor-centered approach to deliver content related to a specific subject matter. Typically, a lecture-based learning environment.

Purpose of the Study

This study will explore the experiences of community college faculty who navigated the sudden disruption of teaching and learning and transitioned to online course delivery due to the COVID-19 Pandemic. Specifically, this study will explore how faculty resistant to online teaching and learning experienced the transition and how this change has impacted their practice. Using a qualitative research method, I will use a case study approach to delve into the experiences of a select group of community college faculty. I seek to unveil community college faculty members' experiences during the pandemic to understand their thoughts, feelings, and the themes associated with the use of instructional technology. By applying Kübler-Ross' Change Curve (2022) and Rogers' Diffusion of Innovations Theory as overarching models, I hope to show how the change to remote and/or online instruction as necessitated by the COVID-19 Pandemic impacted faculty members teaching practices and continued use of technology.

Significance of the Study

Traditionally, community college faculty have been slow adopters of technology and overall, are resistant to change (Akroyd et al., 2013). In a qualitative study conducted by

Washington et. al. (2020), limited training opportunities, a lack of confidence, and lack of professional development act as barriers to community college faculty adopting and using instructional technology.

Community college faculty teaching face-to-face courses are subject matter experts and typically teach using traditional lectures. Zehra and Bilwani (2016) noted faculty concerns in adopting instructional technology regarding the potential role change from the direct disseminator of information to a facilitator. Ruth (2018) described individual faculties or clusters of faculties openly protesting the introduction of distance learning programs. However, the sudden onset of COVID-19 forced community college faculty to quickly move courses online necessitating the use of new technologies to deliver courses (Mason & Mason-Bennett, 2021).

I anticipate that through a better understanding of faculty experience navigating the swift transition to ERT necessitated by COVID-19, more informed decisions can be made regarding faculty's use of technology post-pandemic (Powell & Smith, 2021). I seek to learn more from faculty in order to broaden the understanding of faculty resistance to and preferences for the use of technology. This includes any changes in preferences since their use of new or different technologies during the rapid transition to remote instruction. More broadly, with a better understanding of how faculty experienced the change in teaching methods, management of the organizational and individual change process could prove to lessen resistance, improve implementation, and achieve acceptance of these processes sooner.

From the perspective of a rural community college administrator typically having limited resources, the findings from this study could reveal strategies that could be implemented by the institution to help faculty navigate the inevitable need to adopt and use emerging classroom technology and other teaching and learning pedagogies, especially for faculty who are resistant.

The Pandemic, a remarkable and unprecedented event that revealed that change can be embraced by these late adopters. To better serve online learners whose demand for more online instruction is increasing, what is needed to continue this momentum? This research could yield information, especially for administrators, but could also be used to inform online learning officers and instructional designers. Research specific to the rural community college will help to support decision makers as they encourage faculty members to stay engaged with evolving best practices and innovation and aid in the design of professional development opportunities to better support and retain students.

Research Questions

To shed light on the problem, the primary research questions that guide this study are:

1. How did community college faculty who taught only face-to-face classes prior to the COVID-19 Pandemic experience the sudden transition to remote instruction?

2. How did the mandated use of instructional technology impact faculty members professionally?

Rationale for Methodology

The rationale for this study emanates from my desire to learn more about community college faculty members' experiences during the rapid transition to remote instruction due to the COVID-19 Pandemic. Rather than rely on results from other research studies, I seek to learn from community college faculty with little or no experience using educational technology, listening to their needs from their own recollection of experiences from this event (Bloomburg & Volpe, 2019).

I am deeply connected to online learning from multiple perspectives. As the Coordinator for Online Learning for a rural community college, I am directly involved in faculty professional

development, serve on state-wide committees promoting online learning initiatives, coordinate campus Quality Matters trainings as a quality assurance measure for online courses, and actively participate in related accreditation efforts. I also actively teach both traditional and online courses and am a faculty member serving as a department chair. This background will afford me the knowledge to actively create a link among the problem, purpose, and methodology (Bloomberg & Volpe, 2019).

Qualitative research is best used to empower individuals to share their experiences (Creswell & Poth, 2018). Interviews will be the primary source of data collection to obtain a deeper understanding of community college faculty experiences with this sudden disruption of learning resulting from the COVID-19 Pandemic.

Assumptions

Assumptions are items that the researcher believes are true going into the study, which may prove to be unwarranted (Bloomberg & Volpe, 2019). The following assumptions were made before the data collection phase and reflected upon after findings were reached.

1. The methodology used in this study will generate enough data to answer the posed research questions.
2. The participants in this study have experienced the rapid pivot to online learning and the use of technology necessitated by COVID-19.
3. The participants in this study will provide honest answers.

Conceptual Framework for the Study

The conceptual framework for this study was derived from elements of Rogers' (2003) Diffusion of Innovation (DOI) theory and Kübler-Ross' Change Curve Model (1969). Rogers' (2003) DOI theory describes categories of adopters of new innovations, as defined by Rogers,

constructed from the identification of characteristics of the adopters and the time to sustained adoption of innovations by the adopters. Rogers further postulated that communication channels influenced the adopters' time to adoption of innovations. Kübler-Ross' Change Curve Model describes seven stages as coping mechanisms to change, loss and/or shock (Kübler-Ross, 2022). These stages may be the result of a personal life event or organizational change, such as a change or changes in their work setting.

Rogers' Diffusion of Innovations

Rogers' DOI theory sought to explain the spread of new ideas through a social system. These new ideas were commonly referred to as "innovations". Rogers stated that it did not matter whether the innovation was new or had been in existence. "If an idea seems new to the individual, it is an innovation" (p. 12). Commonly, "technology" and "innovation" are synonyms and are used as such. Further, a "technology" is described as a design for instrumental action that reduces the uncertainty in the cause-effect relationships involved in achieving a desired outcome.

Rogers (2003) found that a special type of communication, which he termed "diffusion", disseminates new ideas. Diffusion "is a kind of social change, defined as the process by which alteration occurs in the structure and function of a social system" (p. 6). Rogers developed his theory by synthesizing the findings of previously conducted studies of the adoption of innovations through systems that generally included these three elements: (a) communication channels, (b) time, and (c) social systems.

Diffusion occurs through communication channels that are described as "the means by which messages get from one individual to another" (Rogers, 2003, p. 13). The second element of diffusion, time, has three components: (a) an individual's adoption or rejection of an innovation, (b) how soon after the innovation is introduced that an individual chooses to adopt it

compared to other members of the group, and (c) the number of members who adopt an innovation in a given time. The third element that was present in the diffusion of innovation was a well-defined social system. Rogers defined a social system as "a set of interrelated units that are engaged in joint problem solving to accomplish a common goal" (p. 23). This social system could influence either the adoption or rejection of an innovation. The degree to which an individual adopted an idea earlier than other members of the social system was referred to as 'innovativeness' (p. 22).

According to Rogers (2003), most innovations have an "S-shaped" rate of adoption with the possibility for variation in the slope dependent upon the time taken for the idea to diffuse. An idea that is quickly adopted would have a steeper curve than one that took more time to adopt. As faculty rapidly transitioned to ERT, the length of time from the first knowledge of the innovation to the actual transition to ERT was a matter of days to a few weeks. The brevity of the *innovation-decision period* as necessitated by the pandemic was instrumental in accelerating the diffusion of this innovation to create a steeper curve for the rate of adoption.

The conceptual foundation for understanding community college faculty members' experiences with the sudden transition to remote instruction during the Spring of 2020 was derived from Rogers' (2003) Diffusion of Innovations Theory, a most appropriate theory for investigating technology adoption. From the perspective of Rogers' DOI, I will explore if the mandated use of available instructional technology, or innovations, as defined by Rogers, shortened the study participants' time to sustained adoption of the new technologies or innovations. Further, the study's target group are those faculty who did not use instructional technology or only used what was mandated by the college prior to the pandemic, consistent with the characteristics that Rogers ascribed to 'late majority' or 'laggards'.

Kübler-Ross' Change Curve Model

The late Elisabeth Kübler-Ross, internationally recognized as a psychiatrist and author, intensively studied terminally ill patients and their respective caregivers. From her life's work, she developed a well-known model of the five stages of grief that now has been adapted for broader application to change in other circumstances involving what may be perceived as a significant loss, known as the "*Kübler-Ross Change Curve*" (Kübler-Ross, 2022).

Kübler-Ross (2022) described the seven stages of grief or loss as follows:

- Shock, the first stage, represents the surprise regarding the event.
- Denial, the second stage, is a conscious or unconscious refusal to accept facts, information, reality, etc. relating to the situation.
- Frustration, the third stage, exhibits itself as being angry with life, the situation, and/or with people who were especially close to them.
- Depression, the fourth stage, signals that an individual is beginning to realize the truth.
- Experiment, the fifth stage, involves the initial engagement with the event or situation.
- Decision, the sixth stage, displays a more positive attitude with a decision to learn how to work in the new situation.
- Integration, the final stage, describes the phase in which individuals finally begin to experience objectivity or acceptance of the event or situation.

Kübler-Ross (1969) postulat that there was no unique pattern for an individual's emotional response as a consequence of great loss or life-change situations. In other words, an individual's grief does not occur in a sequential order, which one might infer from the

descriptions of the stages of grief. Rather, the stages of grief model and succeeding change curve is created to provide a description of emotional responses during the grieving or change process to assist people in communicating and sharing their thoughts and feelings.

I propose that the Kübler-Ross Change Curve Model (2022) and Rogers' DOI Theory can be used to better understand community college faculty's experiences making the quick pivot to remote and/or online instruction as a result of COVID-19. Specifically, these models provide a common ground and a lens to examine faculty experiences with the rapid change to ERT, adopting new technologies to deliver course content during the ongoing uncertainties in higher education created by the pandemic.

Chapter 1 Summary

In the Spring 2020, efforts to reduce the effects of the deadly coronavirus, COVID-19, led to institutions of higher education's sudden transition from their face-to-face classes to remote instruction. The ERT presented challenges for faculty, particularly for those faculty who were inexperienced or less experienced in using technology for delivery of classes from a distance. This chapter provided the foundation for a study to explore community college faculty members' experiences with the use of technology for teaching from a remote location. I will interview faculty who have not taught courses online and have limited or no experience in using technology to support student learning prior to the pandemic. Rogers' Diffusion of Innovations Theory and Kübler-Ross' Change Curve Model serve as the framework for the collection and analysis of the study data. The review of literature will be presented in Chapter Two related to the sudden disruption of traditional classroom instruction, faculty perceptions of online instruction and educational technology, and Rogers Diffusion of Innovations Theory and Kübler-Ross Change Curve.

CHAPTER 2

Literature Review

The purpose of this case study was to explore the experiences of community college faculty who transitioned their face-to-face classes to remote delivery in the spring of 2020 due to the COVID-19 global pandemic. Specifically, the researcher seeks to learn what unintended benefits this sudden disruption of learning and the adoption and/or modified use of technology had as community college faculty envision instruction for the future. The review of literature was organized by themes that emerged from the literature. The chapter begins with an overview of Rogers' theory of the Diffusion of Innovations and Kübler-Ross' Change Curve Model, which will serve as the conceptual framework for this study. The literature review includes a description of the modern community college, community college faculty, and the uniqueness of the community college environment to present the context for understanding the nature of community colleges and faculty who teach at a community college. Finally, the evolution of online learning and COVID-19, as they relate to and affected teaching and learning, will be discussed.

Conceptual Framework of the Study

The theoretical framework for this study was derived from elements of Rogers' (2003) Diffusion of Innovations (DOI) Theory and Kübler-Ross' (2009) Change Curve Model. The purpose of the study is to learn about faculty who self-identify as late adopters of technology and their experiences using technology during the rapid transition to remote instruction. I will use Kübler-Ross' Change Curve Model and Rogers' DOI Theory as a foundation for understanding faculty members' experiences with moving from face-to-face to remote instruction and the adoption or modified use of technology due to the pandemic.

Rogers' Diffusion of Innovations

Rogers' (2003) Diffusion of Innovations Theory, one of the oldest social science theories originated to explain how, over time, an idea or product gains momentum and diffuses (or spreads) through a specific population or social system. The result of this diffusion is that people, as part of a social system, choose whether or not to adopt the new idea or innovation. Rogers described adoption as something a person does differently than what they had previously done (i.e., purchase or use a new product, acquire and perform a new behavior, etc.).

Guder (2009) contended, "While an innovation may be relevant, beneficial, or useful to a social group or organization, that innovation still may not actually diffuse, become ingrained, or take hold" (p. 284). He further suggested that diffusion is possible at which time the individual perceived the idea as new or innovative.

Rogers' (2003) postulated that there are three elements that influence the diffusion of new ideas: (a) communication channels, (b) time, and (c) a social system. Rogers defined *innovativeness* as "the degree to which an individual or other unit of adoption is relatively earlier in adopting new ideas than the other members of a social system" (p. 28). Rogers found that characteristics of adopters greatly influenced the speed in which an innovation diffuses into a population. He grouped the adopters into five categories based on observed characteristics of adopters: (a) innovators, (b) early adopters, (c) early majority, (d) late majority, and € laggards.

Rogers (2003) identified dominant characteristics for each of the five categories. Innovators who are willing to accept the risk of unsuccessful innovations, and likely will be the first to adopt an innovation, were described as *venturesome*. The innovators comprised only 2.5% of the adopters but play an important role in the diffusion process. Innovators present new

ideas from the outside to the system and facilitate their launch within the system. Innovators also take on the role of the gatekeeper, controlling which innovations are introduced to the system. In this role, innovators are often received with a lack of respect by their peers.

Rogers (2003) described the early adopters as *opinion leaders* who are widely respected in the system and serve as a role model for the masses. Early adopters view innovations judiciously and are willing to promote ideas that will be beneficial to the system. Early adopters are a much larger group than the innovators, representing 16.5% of the adopters. Uncertainty about innovations can be lessened with support from these early adopters who are often responsible for speeding the diffusion process within the system.

According to Rogers (2003), the early majority and late majority make up the greatest percentage of adopters as each of these two groups represented approximately 34% of the total groups of adopters. Early majority adopters were described as *deliberate* and provide a certain amount of interconnectedness with peers but often do not hold positions of opinion leadership. The time to adoption for this group is lengthy as those classified as early majority deliberate for long periods of time before making decisions to adopt or reject innovations.

The late majority adopters are *skeptical* about the value of an innovation, are cautious, succumb to peer pressure, and as a result do not adopt innovations until most others have done so. Once peers have adopted the innovation, “the late majority feel it is safe to adopt” (Rogers, 2003, p. 284).

The final group are the laggards who are described as *traditional* and are found to be more skeptical about innovations and change than the late majority (Rogers, 2003). This group often has limited resources and traditionally lack knowledge of these innovations as they are often isolated from main-stream social networks within the system. As a result, their decision to

adopt new ideas is often made in terms of what has been done in the past, or in other words, what is considered tradition Being skeptical and steeped in these traditional processes, laggards must be certain an idea will succeed before they move toward adoption. Resistance to innovations on the part of laggards may be entirely rational from the laggards' viewpoint. Rogers (2003) found this traditional behavior contributed to resistance to innovation and constituted a slower pace in the adoption of new ideas for this group of adopters.

Of the five adopter categories, those classified as *late majority* or *laggards* account for 50% of the adopters (Porter & Graham, 2016), hereinafter referred to as *late adopters*, and are the focus of this study. Rogers estimated the time to adoption by a normal distribution using the mean and standard deviation of this distribution, as depicted in Figure 1.

Figure 1: Rogers Adopter Categorization on the Basis of Innovativeness

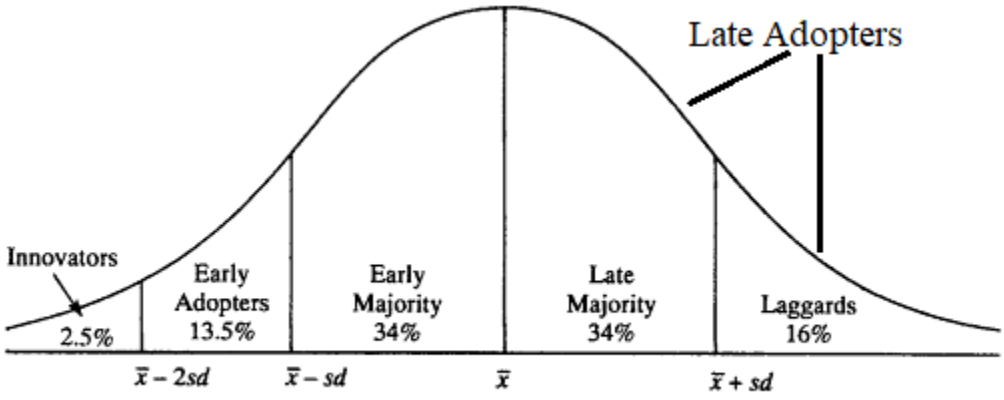


Figure 1: Rogers Adopter Categorization on the Basis of Innovativeness. (Rogers, 2003, p. 281)

Research using Diffusion of Innovations Theory. Researchers have used Rogers' Diffusion of Innovations Theory as a theoretical framework for studying the adoption of new ideas or innovations in their field. Jahanmir and Lages (2016) conducted a study of two well-known technologies, the cell phone and the laptop computer. Their findings were congruent with

the observations of Rogers (2003). The study revealed that the late adopters were those who were less involved with the product and preferred simple solutions.The researchers concluded that a better understanding of characteristics of late adopters aided in reducing their innovation adoption time, accelerated the adoption of innovations, and compressed the diffusion of innovation curve.

Ball et al. (2014), faculty at a midwestern university, explored health educators' resistance to distance education. The researchers identified potential participants for the quantitative study from the American Association of Health Education membership. Simple linear regression analyses indicated that the innovation-decision process, consistent with Roger's DOI theory, the characteristics of the participants affected the time it takes for an innovation in educational technology to diffuse through the field. Most participants agreed they were able to implement distance education, but they did not feel the courses were consistent with the goals and objectives of health education or their teaching style. Additionally, participants indicated that they did not keep up with technology trends, and they could not create a PowerPoint, use a webcam, or certain features of the learning management system.

Holden and Rada (2011) examined the perceived usability on teachers' technology acceptance and found the "perceived ease of use significantly influenced perceived usefulness, and both perceived usefulness and ease of use significantly influence attitudes toward using or behavior intention to use" (p. 361). Findings from this study were used to inform administration and suggest professional development for themselves and their staff.

Porter and Graham (2016) surveyed 214 higher education faculty to explore faculty's time to adoption of educational faculty. Based on analysis of the results, the researchers categorized the faculty into groups using Rogers' Diffusion of Innovation theory. The

researchers reported that faculty who were categorized as late majority and laggards initially expressed aversion to technology and were resistant to adoption even when technology was necessary. However, over time most "laggards will adopt an innovation, but they are the most difficult to recruit" (p. 759).

Smith (2012) used the lessons learnt approach to analyze peer reviewed papers collected through a literature search for specific terms related to the elements of Rogers' Diffusion of Innovations Theory and higher education. The initial search yielded 155 articles. Fifty-five articles were eliminated as they did not meet the criterion for relevance, 89 were read and used with codes developed into themes and connections made between them. An analysis of literature revealed the need for strong leadership to promote innovative practices that facilitate change through diffusion. The researchers recommended that leadership address the need for support through formalized, informal, and collaborative networks. Additionally, a stable infrastructure should be in place with technical and communication issues resolved.

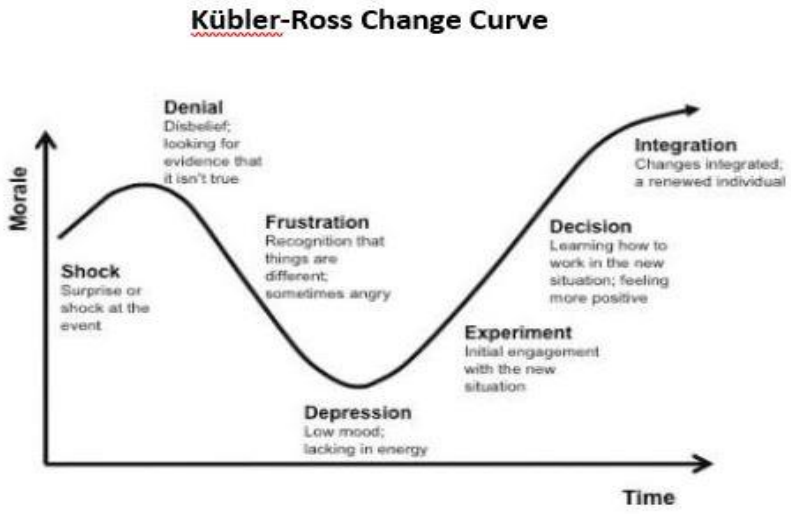
Soffer et al., (2010) reported on a longitudial study conducted over eight academic years, that focused on the diffusion of web-supported learning in higher education lecturers. The faculty under study were participants in the Virtual TAU (VT) project that was aimed at encouraging faculty use of web tools to enrich learning processes and to make instruction more efficient and flexible. The study included approximately 6,000 courses taught by about 2,500 instructors. For the project, faculty were given sole responsibility for the course design and were provided web tools, such as a learning management system, in which to create learning activities and other course content. Correlated to Rogers' DOI Model, the researchers found that early adopters joined the project in the second year. The early majority and late majority adopters followed, with the greatest number of faculty adopting the technology in the third and fourth years of the

diffusion process. The laggards started to emerge at the end of the third and fourth years of the process. The adoption among lecturers was reported as a "rapid process that behaved similar to Rogers' model for diffusion of innovation" (p. 218).

Kübler-Ross' Change Curve

Kubler-Ross' (1969) developed the five stages of grief to describe the process experienced by terminally ill patients. Kübler-Ross' Change Curve Model is divided into five distinct stages: (a) denial, (b) anger, (c) bargaining, (d) depression, and (e) acceptance. The model advocates that processes are "a set of circumstances" that people experienced that were unique to each individual and could be used to provide a perspective for each individual's own loss process. (Rivas & Jones, 2014). Over time, the model became recognized for its applications beyond the experiences of those experiencing grief, and is possibly one of the best known change models. It is widely used in business as a model for changes in the workplace (Critchley, 2012).

Figure 2: The Kübler-Ross Change Curve



Note: Figure 2: The Kübler-Ross Change Curve, *Kübler-Ross Change Curve*®. EKR Foundation. (2021, September 25). Retrieved March 20, 2022, from https://www.ekrfoundation.org/5-stages-of-grief/change-curve/

Research using the Change Curve Model. Pickoff (2009) conducted a study to investigate a medical staff's reaction to new patient safety measures in a hospital. Pickoff contended, "If we better understand why there is resistance to implement change that clearly brings improved outcomes, we will be in a better position to design initiatives that invoke change in clinical processes" (p. 42). The researcher asserted that in the past change to processes occurred very slowly and were more generational. However, in today's society, changes in the medical field are made quickly, nearly on a week-to-week basis. Like the medical field, much of the success or failure for distance education hinges on how faculty perceive technology and the degree to which they assimilate and apply the related technologies (Johnsrud et al., 2005).

Tabata and Johnsrud (2008) used survey design and Rogers' Diffusion of Innovations to investigate post secondary faculty participation, attitude, and adoption of technology related to distance education. A number of core ideas surfaced. Findings indicated that faculty participation

or non-participation in distance education results from factors associated with their skill in the use of technology, their attitude toward technology and distance education, their ability to adopt an innovation, and the demographic variables of age, ethnicity, and institutional affiliation (Johnsrud, et al., 2005).

To shed light on human emotions during the initial outbreak and succeeding months of the COVID-19 Pandemic, Valliana and Mughal (2021) examined human emotions from the perspective of Kübler-Ross' change model. With breaking news of the rapid spread of the COVID-19 virus and the rise in deaths across the United States, the pandemic mandated isolation in the spring of 2020. Parents working from home, children learning at home, and the anticipated loss of major life events such as graduation ceremonies, weddings, and family gatherings launched the first stage of the change process, participants' "denial". As illustrated by Kübler-Ross' Change Curve Model shown in *Figure 2*, "denial", quickly moved toward "anger", the second stage. The commentary pointed out that horrific circumstances outside of one's control might lead to people getting ensnared in the fourth stage of change, "depression". With acceptance being the last stage of Kübler-Ross' Change Curve, drastic transformations have been observed as a result of the pandemic. The study concluded that change was a significant part of COVID-19 and individuals experienced some or all of these stages in their own capacity and time.

Summary of Theoretical Framework

Using Rogers' Diffusion of Innovations and Kübler-Ross' Change Curve Model, this study will attempt to provide a better understanding of late adopters' experiences during the diffusion process. While all potential consequences cannot be eliminated, this study may afford improved insights into the meaning attached to innovations for community college faculty.

The Modern Community College

Originating from the Morrill Act of 1862, also known as the Land Grant Act, community colleges were initially called junior colleges and provided access to higher education to individuals who may not otherwise be able to attend universities. The second Morrill Act in 1890 followed, which allowed the expansion of minorities being admitted into the land grant colleges (Cohen et al., 2014; Drury, 2003). In the early 1900s, the first junior college (what we now refer to as community colleges) was founded and universities quickly recognized the first two years in higher education were not necessarily a part of the university experience, but instead, focused on a common population of students and was considered to be an extension of high school, while the university focused on the upper level courses that aligned more closely with research (Brint, 1989).

Junior colleges experienced slow growth with only 14 public colleges and 32 private junior colleges in existence by 1914. The Great Depression, which took place mostly in the 1930's, marked significant growth in junior college enrollment and a transformation in the structure. The concept of a two-track curriculum gained momentum with transfer and terminal tracks being established; businesses also partnered with junior colleges to train employees. A.J. Cloud of San Francisco Junior Colleges was an early supporter of these community relations and was credited with coining the term "community college" (Cohen et al., 2014). In the 1950s, James Bryant Conant, former president of Harvard, took a very proactive approach in promoting the community college. It was mentioned that the motivation for his interest could have been to promote the university as an elite institute of higher learning focusing on research (Drury, 2003)

The W.K. Kellogg Foundation provided a series of grants in the 1950s, which were instrumental in creating today's community college model. Community colleges experienced

significant growth during the 1960s with baby boomers of World War II being of age to attend. This rapid growth continued during the 1970s with more than 4.5 million students attending by 1980. Specialized training became the community college trademark in the 1980s, which allowed the community college to be competitive with four-year institutions (Brint, 1989).

Today, there are over 1,000 community colleges in America, enrolling nearly twelve million students annually. At least 29% of these students are first generation college students with 35% being single parents or students with disabilities. Nearly 47% of minority students enroll in these colleges due to their open door admission policies, accessibility, and the focus on students and teaching (American Association of Community Colleges, 2020).

Uniqueness of the Community College

The community college is unique in the arena of higher education. America's community colleges have provided access to higher education and an opportunity for a better life to the most diverse student body in history. The continued "open door" has welcomed students with different goals for success, whether to enter the workforce or continue their education at a university. Serving students of all ages, with disabilities, and prior educational experience, students often arrive under-prepared for college and must take remedial courses to become college ready (Boggs, 2011; Eddy, 2007; Hachey et al., 2013; Murray, 2007). Mellow (2018) reiterated these challenges with the diverse population of community colleges having the highest percentage of low-income, first-generation students and those struggling academically.

The literature cites multiple factors that often differ for community college students. Community college students often do not live on campus, are typically older and are navigating life challenges with family while attempting to work full or part-time jobs, are not dependent on parents for financial support, and are often motivated by wanting to improve their situation in

adult life. Additionally, the literature recounted that community college students are likely to be first-generation college students and less prepared for college, have a gap between high school and college attendance, and be place-bound (Boggs, 2011; Mellow, 2018; Merriam & Bierema, 2014; Stavredes, 2011).

Teaching at any community college means supporting students from many educational backgrounds with fewer resources. Mellow (2018) avowed that "community colleges educate the highest percentage of low-income, first-generation students, and those struggling academically, yet they receive the smallest pool of funding to spend on each student" (p. 110). With limited support resources, faculty in the community college not only provide instruction, but also advise students to keep them on track academically, assist them with financial aid, scholarships, and other services.

In a study of rural community colleges across the State of Virginia, Finnegan (2019) sought to learn more about experiences of supporting students specifically from rural backgrounds. Statistics were grim: 19% of adults failed to graduate from high school; only 27% of adults had attained a college degree; and as a region, it ranked 50th in the nation for educational attainment.

Based on structured interviews with nine faculty who taught at nine of the Rural Virginia Horseshoe (RVH) colleges, findings pointedly showed that faculty viewed themselves as instructors first, but they were asked to fulfill multiple other roles to meet the needs of their students and their college. One-third of the faculty had significant administrative responsibilities. Faculty articulated that it was not their role to integrate literacy instruction into content-specific coursework, yet they felt there was no choice in order to meet student needs (Gregory & Colclough, 2018). Faculty indicated a strong desire to help students pursue their passions, assist

students to overcome under-preparedness, the diversity of backgrounds and cultural views within the classroom (Tabata & Johnsrud, 2008). Finnegan (2019) established that many faculty in the community college had been inspired as students themselves by community college faculty.

Community College Faculty. Eagan (2007) reported a steady increase in the number of credit hours taught by community college faculty with salaries behind pace of the increased workload. Up from the average credit hours taught in 1988, being 15.5 hours per week, 17.8 hours was the average in 2004.

Community college faculty are typically found to be subject matter experts and often arrive in academia with a wealth of knowledge of the subjects to be taught, but without prior pedagogical training to know "how to teach" or communicate these valuable real-life experiences, concepts or advanced knowledge to community college students (Wagner et al., 2021). Eagan (2007) found the average age of full-time community college faculty to be 49.8 years of age with no significant difference between males and females. In the study, 62.3% of these faculty held a master's degree in their field of study, 19.4% had attained a professional or doctorate degree, and 18.3% held a bachelor's or below. Additionally, often one faculty member was solely responsible for the curriculum as few, if any peers taught in the same discipline. Murray (2007) cited the increasingly difficult task of finding qualified faculty for the specialized areas from the community and the ongoing struggle to attract qualified faculty, especially for the rural community college.

Murray (2007) noted the heavy workload for community college faculty was yet another potential shock for those not familiar with the community college environment. 83% of full-time community college faculty indicated that teaching was their primary responsibility while at least

16% held more than one job, with many serving as consultants for other institutions, nonprofit organizations or businesses.

In a study conducted by Boggs (2011), community college faculty were often expected to advise students, serve on committees, and participate in community service activities. Additionally, rural community college faculty often dedicated office hours and additional time to students, whereas larger institutions may have tutoring centers and other support resources available to ease the multiple roles for faculty. The study cited budgetary constraints as a contributor to the lack of resources.

Job satisfaction for full-time community college faculty has been found to be healthy; 90 percent of faculty indicated they were somewhat or very satisfied with their job (Akroyd et al., 2013; Jaeger et al., 2018). Faculty satisfaction is complex and often difficult to describe and predict. Departments where faculty experience workload as fair were likely to be in places where all faculty are better retained, satisfied, and productive.

Community College Faculty in Rural Communities. Faculty who teach in rural community colleges may experience different challenges than those who teach in larger, urban colleges. A study conducted by Finnegan (2019) found that rural community college faculty often were actively involved with academic and career advising, a role they did not relish, but they feared poor academic advice could quickly derail a students' academic progress. In the rural community college, faculty often were actively involved in the community, sometimes participated in local government, and had family obligations. These were the faculty community college students look up to and want to become.

Faculty who participated in the study also noted the need to advocate for students in the midst of childcare dilemmas, untreated and persistent medical concerns, the need for food,

housing, and certainly financial struggles. By seeking out assistance from the community and helping students to find needed resources, faculty were able to lessen these deterrents so that students could focus on the learning opportunities available to them, which in turn benefitted the college and lowered the risk of students dropping classes or stopping out (Finnegan, 2019).

Rural community colleges are encouraged to acknowledge the many roles their faculty hold including transportation or technology manager, advisor, role model, social worker, and economic developer (Finnegan, 2019). With the documented multiple roles of community college faculty, findings supported the importance for these faculty to have access to the appropriate resources, continued professional development, and a balanced workload to be at their best to serve students (Shreaves, 2020; Tabata & Johnsrud, 2008).

Professional Development. Community colleges have also been cited as having access to limited or no professional development. From a random sample of community college academic vice presidents and designated leaders of faculty development programs, Eddy (2007) found that professional development at the rural community college encompassed little more than random activities, and that faculty development programming at two-year colleges lacked intentionality. As approximately a quarter of students entered community colleges underprepared for college-level coursework, Gregory and Colclough (2018); Hachey et al. (2013); Johnson (2008); Schmidt, Tschida, and Hodge (2016) cited the specific need for targeted professional development related to the pedagogy of teaching literacy. A study conducted by Washington, et. Al., (2020) focused on a community college's attempt to integrate technology into instruction, three themes emerged. Two of the three themes emerged from faculty interviews. Theme two cited barriers to technology implementation as limited availability for faculty training and lack of support and access to technology for students. Theme three for faculty emphasized the value of

traditional learning in higher education. The overarching sub-theme for theme three revealed that faculty were uncomfortable with technology and additional professional development was needed.

Evolution of Online Learning

The Internet revolution has become a reality over the past decade using information technologies that have penetrated every aspect of daily life, including education (Merriam & Bierema, 2014; Smith, 2012). Integrating instructional technology into higher education is no longer a nice extravagance but a "must have" for institutions of higher learning. A rising demand from students for web-supported learning has led universities to recognize the need to implement technological tools into the teaching curricula. In this context, it is important to clarify that the diffusion of web-supported academic instruction takes the shape of two parallel processes. The first process focuses on having web supported instruction interface and the second focuses on the depth of usage patterns within the web-supported interface (i.e., integrating web-supported learning materials and communication activities). The diffusion process of web-supported learning is rapid and intense. “We must not be misled by the success of web-supported learning diffusion since the objective of significant improvement of teaching has yet to be achieved. To do so, deployment and long-term commitment is required by all the relevant partners: university leaders, managers, and academic staff” (Soffer et al., 2010, p. 221).

Akroyd et al. (2013) projected that there may be a significant learning curve to match technology with instructional techniques for faculty not familiar in delivering technology-enhanced instruction. In a study focused on better understanding the perceptions of distance education, faculty were often the designers, implementers, and assessors of online courses (Schulte, 2010). A common theme for smaller institutions remained that support for faculty to

develop and support technology related to online course development was not affordable and there was a tremendous need for instructional support, especially in the community college setting (Allen, I. E., Seaman, J., Babson Survey Research Group, & Quahog Research Group, 2016; Shreaves, 2020; Tabata & Johnsrud, 2008).

Distance learning originally evolved as a method to help learners who could not attend school because of the distance to the nearest school or work obligations that prevented attendance (Anderson & Simpson, 2012). This first generation of distance education was documented as a well-established means to transfer information by print-based course materials and the postal service and dated back to the end of the 19th century (Sumner, 2000). Distance learning was then characterized by the didactic teaching style, also called "guided didactic conversation". Correspondence courses were developed and promoted beyond the traditional brick and mortar classrooms as a means to guide learners through the material that was systematically produced and distributed.

As new technologies evolved, the second generation of distance education began to integrate the use of print with broadcast media, cassettes and to some degree – computers. The integration of one-way technology-radio and television broadcasts, and audio and video cassettes, along with improved support services provided opportunities for growth for distance education (Merriam & Bierema, 2014; Summer, 2000).

The beginning of the 21st century found higher education deep in the information age. Using today's technology to include the internet and the world wide web, distance courses shifted into an e-learning environment where cloud technology provides learning tools for online learners (Perry & Pilati, 2011). Traditional classroom experiences transitioned to learning environments rich in technology. One course might rely on asynchronous technologies, such as

online discussion forums, while another course might incorporate real-time webinars and videoconferencing (Bonk, 2009). This platform allowed learners to balance school, work, and family while working to earn their degree. In order for this to be a successful venture, learners must be prepared for the new learning environment and its' challenges (Allen et al., 2016). Proficiency in navigating technology requires proper training in online skills that better serve online learners (Fetzner, 2013). As documented in the article by Hachey, et al. (2013), The National Center for Educational Statistics (NCES) cited the main reason for offering online courses was to provide access for students who might not otherwise be able to attend college because of geographic, family, or work-related issues and the desire to meet student demand for flexible scheduling (Moorefield-Lang et al., 2016; Perry & Pilati, 2011).

Growth in Online Learning

Distance education continues to grow as a modality of delivery for coursework with the online sector growing exponentially. Ruth (2018) avowed that distance-learning enrollments have been rising for the last 14 years consecutively to a total of 6,359 million students. According to the U.S. Department of Education Institute of Education Sciences National Center for Education Statistics (2016), the projected college enrollment growth in online courses was expected to increase by 15% for the next 10 years. Research revealed a steady increase in enrollment for higher education institutions. Even with declining overall higher education enrollment, distance education continued to grow (Allen et al., 2016). The observed growth rate from 2013 to 2014 of the number of students taking at least one distance course was 3.9%, up from the 3.7% rate for the previous year. For the second year in a row, the rate of growth in distance enrollments was very uneven; public institutions commanded the largest portion of

distance education students, with 72.7% of undergraduate and 38.7% of graduate-level distance students.

Ruth (2018) affirmed that online courses are increasing in popularity, with a recent statistic noting that 31.6% of college students are taking at least one course online, and almost half of these are taking all of their courses online. The growth rate for online enrollments far exceeds the growth in the higher education population (Bolliger & Wasilik, 2009; Hachey, et al., 2013).

Benefits for the Institution. According to (Cunningham, 2018), community college leaders operate with constrained resources, increased accountability requirements, and challenges in staffing courses with qualified faculty. Out of necessity, the pandemic opened institutions to the possibility of connecting with students anywhere to deliver a meaningful online learning experience. As a result, online learning may provide community colleges with a relatively low cost and convenient method of expanding. Courses can be developed, copied, and reused by other instructors allowing for cost- effectiveness. Moreover, there are benefits for the institution with courses being replicated and standardized. To some extent, the replication of online courses for delivery by multiple faculty in the discipline offers quality control in terms of course design as quality online teaching and learning does not occur naturally. Daniel (2021) mentions that amidst a time of uncertain finances due to unpredictable student demand, colleges expect to incorporate some distance education for the long haul.

Benefits for Students. The literature indicates that online learners share broad demographic and situational characteristics, but these learners could be characterized as emerging, responsive to rapid technological innovations and new learning paradigms (Dabbagh, 2007; Merriam & Bierema, 2014). With distance learning technologies erasing geographical

boundaries and competition for students steadily increasing, online courses were in high demand for the adult learner as well as for the first-generation student because of convenience (Fetzner, 2013; Kauffman, 2015; Stavredes, 2011). The availability of online-degree-earning opportunities increases access to higher education that might otherwise be unattainable for many prospective students. Additionally, frequent, and effective digital interactions between instructors and students likely encourages student commitment to the course and results in a stronger academic performance. Online learning has proven beneficial for this diverse population of learners (Merriam & Bierema, 2014; Moorefield-Lang et al., 2016; Shreaves, 2020; Tabata & Johnsrud, 2008).

Benefits for faculty. As early as 2008, researchers were investigating the transition that college instructors were making from traditional instruction to web-based course delivery. In a qualitative study of the experiences of nursing faculty teaching in a newly developed graduate-level program, Johnson (2008) found many participants felt ill-prepared to teach online and were concerned about a perceived increase in time commitment. In addition to experiencing a paradigm shift in their philosophies of teaching, they reconsidered their teaching processes. They shared that despite their apprehension about adjusting their teaching techniques, they were able to transfer familiar strategies to the online environment, as well as take newly developed strategies back into the face-to-face classroom. While faculty members expressed concerns about the lack of face-to-face contact with students, they also discussed students' increased engagement in critical thinking skills.

Post-secondary faculty use technology in teaching as a tool to solve existing problems or enhance aspects of the teaching process, such as increasing collaboration, student motivation, opportunities to strengthen communication, critical thinking, and access to resources. For

students to experience more positive outcomes from online coursework, it is important for faculty to have positive attitudes toward digital technologies and online course delivery (Martin et al., 2020; Shreaves, 2020).

Advancement in Technology. As community college students enter the digitally driven learning environment, they must take a more active role and bear a larger share of the responsibility for their learning with faculty actively present to facilitate the learning experience (Perry & Pilati, 2011). For some faculty, technology is perceived as a potential deterrent to online learning; however, if utilized properly, it can be instrumental to help community college students succeed academically (King & Cox, 2011; Levy, Kingsborough Community College, & The City University of New York, USA, 2017).

According to Anderson and Simpson (2012), technology has enabled flexibility and interaction in delivery. “Our challenge would seem to be twofold: selecting the best technologies for our pedagogical purposes from all the options and making those technologies invisible” (p. 6). Learning Management Systems (LMS) are used universally as a platform to host and support the dissemination of resources and materials in higher education. Faculty have rated LMSs as highly important (Martin et al., 2020; Perry & Pilati, 2011). Common uses of LMSs by faculty include communication of course level announcements, post informative content, learning activities and assessments, and posting grades. Faculty encouraged learners to use the grade feature to track their progress.

Technology such as Google programs (Docs, Sheets, Drive, Classroom), wikis, discussion forums and other shared collaborative spaces are commonly utilized in higher education courses, especially those delivered in an online format. Screen-casting, a preferred method of learning using audio/video, are widely used (Martin et al., 2019; Martin et al., 2020)

as well as web conferencing tools, “a synchronous one-to-one or one-to-many communication tool that allows a group to interact, share documents, present demonstrations, and edit documents” (Stavredes, 2011, p. 173).

Professional Development for Teaching in an Online Environment

Professional development for faculty who teach using educational technology is a recognized need **(**Gregory & Colclough, 2018; Martin, et al., 2020; Merriam & Bierema, 2014). Schmidt et al. (2016) asserted that ongoing professional development aimed to help faculty prepare for teaching online would improve their online courses as well as address the fear and distrust of online coursework.

Research supports faculty’s belief in the importance of professional development, particularly that which is related to teaching in an online environment. In one study, participants expressed their belief that faculty participation in professional development offered within the institution, such as workshops, programs for online teaching, and initiatives about peer teaching, was important (Washington, et. al, 2020). Participants also highly recommended faculty take advantage of any opportunity to participate in professional development with a professional organization. Quality Matters and the Online Learning Consortium, two leaders in professional development, were mentioned as helpful opportunities to collaborate with other online instructors and take in research-based content to advance knowledge of best practices and share teaching strategies.

Grover et al., (2016) explored faculty preferences for professional development related to online teaching. Of the 107 participants in the study, 84.9% indicated a willingness to participate in professional development to improve online teaching. Faculty preferred one-on-one meetings with instructional design experts, online resources such as “how-to” instructions, a portable

document format (PDF), and websites with support materials to learn about the use of educational technology or completing instructional tasks. Study participants also rated other modes for faculty professional development as desirable, such as informal interactions with colleagues, face-to-face workshops, peer review of courses, and short videos or podcasts.

Faculty Perceptions of Online Instruction

The theme of promoting an institutional infrastructure supporting online instruction and providing faculty with the time, training, skills, and technology to teach online courses is not new. Factors related to the skill of faculty in using technology and their beliefs toward both technology and distance education have influenced behaviors and participating in distance education (Tabata & Johnsrud, 2008; Porter & Graham, 2016). The increased investment of time to teach online and the perceived negative impact of large online classes, teaching load, the high level of support required to design the course, challenges in keeping updated with technology and inadequate funding and processes of technology acquisition have surfaced as documented challenges for faculty (Kibaru, 2018).

These attitudes and beliefs related to faculty resistance were supported in a study conducted by Shreaves (2020). Of the sample of 2,144 community college faculty, only 20% (430) actually taught an online course while 80% did not. “Instructional support provided by the institution”, “time available for online course development and training”, and “reflecting on current teaching practices and exploring new ways of teaching” were among the top five factors that affected faculty decisions to teach or not to teach online (p. 116).

Ample evidence indicates that the professoriate in the United States has been enthusiastically opposed to distance-learning in all of its forms (Akroyd et al., 2013; Allen et al., 2016; Ruth, 2018). Further, Waty and Ngo (2016) found that 93% of the highly-effective

accounting faculty interviewed for their study cited faculty resistance as a key barrier to technology adoption and use. Based on the qualitative data that emerged, faculty were not necessarily resistant to the technology, but resistance was cited due to facultys' lack of digital competence and lack of the time required to effectively learn and implement the technology (Bolliger & Wasilik, 2009).

Faculty perception of the quality of instruction and learning from a distance have also been documented as contributing to faculty resistance to online courses (Perry & Pilati, 2011; Shreaves, 2020; Waty & Ngo, 2016). Tabata and Johnsrud (2008) conducted a large study of 10 campus public systems located in the western portion of the United States. The target population included 4,534 individuals from one research university, two baccalaureate-granting colleges, and seven community colleges. The "quality of distance education" was one of the two variables found to be significantly associated with faculty resistance to participate in teaching courses through distance education. Faculty did not view distance education as being equivalent to traditional classroom instruction. Although dated, the study broadly described distance education as courses delivered through cable television, interactive television, online/web delivery, videoconferencing, and hybrid delivery, a combination of face-to-face instruction with technology-enabled delivery. Respondents from the associates' and baccalaureate granting colleges were associated with a decreased likelihood of participating in distance education by 22% and 32%, respectfully. Ruth (2018) also reported faculty to be "enthusiastically opposed" to distance learning. On a scale of 1 to 5 (5 being the highest score), respondents ranked the overall quality of courses offered at their institution highest (4.29) for traditional courses/programs while fully online programs ranked much lower at 2.71.

The Rapid Transition to Remote Teaching

In December 2019, the novel coronavirus caused by an acute respiratory syndrome coronavirus 2 (SARS-VoV-2) emerged from Wuhan, China (Zou et al., 2021) and soon began to dominate the news in January 2020 as the number of cases and affected countries continued to grow. By March, 2020, countries resorted to strict shutdowns to contain the spread of the virus (World Health Organization, 2020). Individual states began to issue stay-at-home orders, cancelled gatherings, and closed schools. More than 200 colleges and universities closed and made an unprecedented shift to remote instruction in order to cope with the challenges COVID-19 presented (Mason & Mason-Bennett, 2021).

In a survey conducted by Bay View Analytics, in collaboration with the Online Learning Consortium (OLC), WICHE Cooperative for Educational Technologies (WCET), the University Professional and Continuing Education Association (UPCEA), the Canadian Digital Learning Research Association (CDLRA), and Every Learner Everywhere, 826 faculty members and administrators at 641 American colleges and universities during the month of April, 2020 participated in the survey. Ralph (2020) found that most institutions (90 %) engaged in some form of emergency distance/virtual education to conduct or complete the spring term. Seventy-six percent of the instructors reported they had to move some of their courses online to complete the term while the remaining instructors were already teaching fully online or had courses canceled because of the pandemic. Responses showed the transition was difficult for a good portion of the instructors with no online teaching experience.

The quick transition necessitated “new teaching methods” and the use of new technologies to effectively deliver the course content. Faculty overwhelmingly cited the use of their institution’s learning management system (83%) and synchronous video technology (80%)

to deliver courses. Using the necessary technology to complete the semester, a good portion of the faculty (65%) recorded their own lectures and 51% used videos from third-party sources (Ralph, 2020).

Though online courses were available, faculty and students residing in some areas of the service area did not have access to computers and/or to a reliable internet connection which further complicated the delivery of and participation in courses taught in a web-based environment, an issue dating back to the inception of the internet for course delivery (Finnegan, 2019; Levy et al., 2017; Tabata & Johnsrud, 2008). With the pandemic, faculty and students were not equipped to make this rapid change.

Landrum (2020) cited the many efforts by the administration at Austin Community College that were helpful to faculty during the spring 2020 shut-down and unprecedented transition to remote instruction. Stipends were offered to faculty with expertise to mentor other faculty who were not familiar with the technology. The institution also loaned laptops, tablets, and other technology to students, faculty, and staff in need. The college continued to provide exceptional training and technical assistance for both faculty and students. Since March 2020, dental hygiene program faculty have embraced new technologies to enhance online learning, such as multiple audio and video software platforms, online software that allowed video monitoring during exams, document cameras and game-based learning platforms. The authors credited faculty with a job well-done and noted the learning opportunity the situation created. On the other hand, the rapid switch to remote instruction necessitated by the pandemic came with documented challenges for faculty who were not as adept and eager to use new, innovative technologies.

From this same survey, Lederman (2020) documented the difficulties for the roughly one-third of colleges and universities nationally that offered no or few online courses before the Spring of 2020. Faculty reported they used “new teaching methods” specifically citing the use of the learning management system (83%) and synchronous video technology (80%) during the transition during the spring of 2020. While faculty navigated the transition, “The changes in learning modes in reaction to the COVID-19 virus forced students’ over-night to adjust to online learning and navigate these skills” (Gonzalez-Ramirez et al., 2021, p. 30).

In a study conducted by Hodges et al. (2020) Instructional design teams already in place at the community college were accustomed to assisting a much smaller pool of faculty interested in teaching online and the additional workload was difficult to manage. During the rapid transition to online learning, the responsibility for instructional design staff was “to provide (1) direction, (2) protection, and (3) order” (p. 28). With no clear linear path to the resolution or end of the pandemic and the need to support faculty, all were independently progressing through the stages outlined in Kübler-Ross’ change curve model (2022).

According to Lamphere (2021), “technology itself has helped ease the sting of this virus-imposed isolation. It provides us with an outlet for connecting with people during this time of isolation” (p. 33). As a result of the pandemic, policies have been altered, routines have been disrupted, and mandates have been instituted as the virus continues to surge and wane. As the world attempted to lessen the spread of COVID-19, people were unable to safely interact and socialize with others. All have likely experienced “Pandemic fatigue”. Learning management systems, web conferencing tools such as Zoom or FaceTime, and other technologies, be it friend or foe, have been a right-of-passage to communicate, attend virtual events or meetings, and

interact with students as faculty continue to navigate teaching and learning through this global pandemic (Landrum, 2020).

Chapter Summary

Chapter Two presented a literature review of the adoption and/or modified use of technology by community college faculty and potential impact for the future. While the literature indicated we are still in the throes of creating history in distance education, faculty experiences with the recent shift to remote and online delivery during the COVID-19 Pandemic were discussed. “Online instruction will never be the only teaching modality available-nor should it be. Teachers who venture into the online realm should do so with a clear understanding that although teaching online may be easy, doing it well is not” (Perry & Pilati, 2011, p. 102). “Our, and your, challenge is to continue to build on that heritage, to critically evaluate technologies (in their broadest sense) and pedagogies, and carefully consider how they can contribute to quality distance teaching and learning” (Anderson & Simpson, 2012, p. 8).

Chapter Three describes the methodology chosen for this study, including details about the individual cases.

Chapter 3

Methodology

The outbreak of the global pandemic, COVID-19, in the Spring of 2020 necessitated the rapid transition to ERT for educators across the nation. In a matter of a few days up to two weeks, faculty quickly converted courses to remote instruction, began to use new technology, and, for those teaching face-to-face classes, prepared to teach their courses in a much different format to help students successfully complete the spring semester (Colclasure, et al., 2021; Gonzalez-Ramirez et al., 2021; Johnson, et al., 2020; Landrum, 2020). This study will explore the experience of community college faculty who navigated the sudden disruption of teaching and learning and transitioned to online course delivery. Specifically, this study will explore how faculty resistant to online teaching and learning experienced the transition and how this change has impacted their practice. This chapter discusses the methodology that will be used for this study. The research design, population and sample, instrumentation/materials, data collection and analysis, delimitations, limitations, and ethical assurances are described, as well as a summary of the methodology.

Research Design

This study will utilize a qualitative case study approach to explore faculty experiences with the transition to online course delivery. Case study methodology provides an in-depth analysis of a specific condition or situation rather than using a quantitative approach (Yin, 2018). Of the research strategies for a qualitative study identified by Yin (2011), the qualitative case study design is best suited for this study as it provides a means to capture people's stories (Patton, 2015). Through semi-structured interviews, I will be able to explore the thoughts of community college faculty using the Kübler-Ross Change Curve Model and Rogers' (2003)

Diffusion of Innovations (DOI) Theory as lenses to make sense of their perceptions of the use and/or modified use of technology as a result of the COVID-19 pandemic. Two research questions will guide the study.

3. How did community college faculty who taught only face-to-face classes prior to the COVID-19 Pandemic experience the sudden transition to remote instruction?

4. How did the mandated use of instructional technology impact faculty members professionally?

As described in Kübler-Ross' Change Curve Model (1969), persons experiencing change, such as the rapid transition to ERT, will likely experience multiple responses to the change throughout the process, potentially leading to different outcomes as the process evolves. Each of the categories of adopters described by Rogers (2003) outlines specific characteristics related to socioeconomic status, personality values, and communication behavior that contribute to their reaction to innovations (p. 287). This qualitative case study approach provides participants with the means to express their experiences in a manner that allows for more in-depth analysis of their responses relative to Kübler-Ross' stages of change and Rogers' adopter categories.

Quantitative techniques use surveys and statistical data that provide participant brief responses, but do not allow for the participants' more in-depth discussion about their experiences. To answer the research questions posed in this study, an in-depth understanding of the phenomenon in question can only be derived through participants' full description and narrative.

Qualitative research designs are an effective way to explore multiple perspectives and meaning through the context of the research participants (Yin, 2011). Participants in the study are encouraged to share their perspectives and experiences as this approach suggests various

approaches over one source and as a result, multiple perspectives are analyzed and synthesized and provide a richer description of the phenomenon in question (Merriam & Tisdell, 2016; Yin, 2011).

In summary, this research design was selected because open-ended research questions allow the participant the opportunity to express their experiences in a comprehensive, in-depth manner. This design also allows the researcher to observe the participants' non-verbal communication during the interviews, providing a deeper analysis of their response to the rapid transition to ERT and the continued use of technology.

Population and Sample

Bloomberg and Volpe (2019) described a population as the entire group that a researcher wants to draw conclusions about. For this study, full-time community college faculty in rural Oklahoma and Arkansas who have taught at least three years with no online teaching experience and self-identify as late adopters of technology will serve as the population.

A sample or subset is drawn from this population to deepen understanding of the population under study. Specifically, criterion sampling will be used where "participants are chosen because they meet a certain set of criteria as predetermined by the researcher" (Bloomberg & Volpe, 2019, p. 385). According to (Patton 2015), sampling units are smaller in qualitative studies but can elicit intense, detailed, and in-depth participant information. The researcher's intent in using a sample over the population is to explore a particular context in depth to gain accurate insight or an in-depth understanding of the target faculty. Collecting data from the entire population would be unmanageable and unnecessary. The sample size for this study will be approximately 10-12 participants and continue to increase until theoretical saturation is reached. Charmaz (2006) stated that saturation is reached when data collection

reveals no new themes or insight to support the study. Participants for the study will be faculty selected from the target population who taught traditional courses prior to the rapid transition to ERT necessitated by the COVID-19 pandemic, experienced the rapid transition to ERT during the Spring 2020 semester, and have continued to teach since the event.

Participant Selection Procedure

Participants for the study will be selected using a criterion sampling technique (Bloomberg & Volpe, 2019, p. 385). Chief online officers (COOs) from Oklahoma and Arkansas rural community colleges will be instrumental in identifying potential participants for the study. COOs will be provided the participant selection criteria via e-mail that will be used to identify faculty at their institution who may be potential candidates for the study. Using internal institutional processes, the COOs will contact prospective participants, inquiring about their willingness to participate in the study. The COOs will provide the researcher with contact information for faculty who expressed an interest in participation. From the COOs recommendations, I will email a description of the study and the *Participant Profile Questionnaire* (Appendix B) to faculty members. Faculty will return the questionnaire to me by email. This information will be used to determine which faculty fit the criteria for the study.

Instrumentation/Materials

Participant Profile Questionnaire

The 10-item *Participant Profile Questionnaire* was created by the researcher to verify that participants meet the study criteria. Faculty interested in participating will complete the questionnaire along with the *Informed Consent Form* (Appendix C). The *Informed Consent Form* describes the voluntary nature of the study and the efforts that will be made to maintain confidentiality.

Interview Protocol

Interview protocols are used to document essential details related to the interview. For instance, an interview protocol might include the date and time of the interview, identify the interviewer and interviewee, and list the interview questions. For this study, the *Interview Protocol* (Appendix D), developed by the researcher, will be used to ensure the same standardized questions are asked of all participants and that specific topics relating to faculty experiences with the transition are explored (Creswell & Poth, 2018). Questions intended to elicit details about faculty experiences during the Spring 2020 semester making the rapid transition to remote and/or online instruction will be included in the *Interview Protocol* (Appendix D). Additionally, an opening question will be asked to establish rapport and encourage the faculty member to respond openly and freely. Finally, background/demographic questions will be included to document basic information about the interview participants so that records are organized and accurate, as described by (Creswell & Creswell, 2018).

The interview questions for this study were designed by the researcher to elicit participants' attitudes, perceptions, and reflections related to the rapid transition to ERT and their use and/or modified use of technology since the spring of 2020. Interviews will include semi-structured, open-ended interview questions as a means for faculty to provide a response. For qualitative research, Patton (2015) suggests that interview questions should be open-ended to allow participants the opportunity to respond in their own words. Further, interview questions should be neutral, singular, and clear. Open-ended questions are "the heart of qualitative data" (p. 446) as these questions are designed to encourage conversation.

While theorists offer multiple perspectives related to the importance of validity, Creswell and Poth (2018) state that multiple validation strategies are necessary in qualitative research to

assist the researcher in checking for accuracy. Pilot testing, a validation strategy suggested by (Creswell & Creswell, 2018), can also provide an opportunity to rehearse the interview questions and gather feedback from a participant's perspective regarding the clarity of the questions, along with recommendations for additional questions that might yield pertinent information for the study.

To validate the interview questions and protocol for this study, two experts in the field of distance education technology and design will pilot test the interview protocol. These experts will include the Oklahoma State Regents for Higher Education's Director of Online Learning and one chief online officer (COO) from a rural Oklahoma or Arkansas community college. I will also pilot the questions with two community faculty members who fit the criteria for this study. The researcher will correspond with the volunteer reviewers via email. To begin the process, the researcher will send a copy of the *Interview Questions* along with a description of the purpose of the review to each reviewer. An interview date and time will then be established by email. After conducting the pilot test with each expert, I will review feedback from each interview, revisions will be made, the questions will be updated, and the process will be repeated until the final questions can be agreed upon by the experts, the researcher, and Dr. Kenda Grover, the dissertation chair for this study.

Data Collection and Analysis

Data Collection

Creswell and Poth (2018) state that one-on-one interviews may take place with the interviewer and interviewee being physically located in the same room, talking face-to-face using technology, or interacting by email. Due to the ongoing concern over travel and COVID-19, one-on-one interviews will be conducted by Zoom for this study. At the beginning of the

interview, the researcher will ask for verbal permission to record the interview. Zoom web conferencing software will be used to record. It is anticipated that each interview will last not more than sixty minutes.

The interviews will be recorded using Zoom web conferencing software, then transcribed. These recordings will serve as field notes, "the fundamental database for constructing case studies and carrying out thematic cross-case analysis in qualitative research" (Patton, 2015, p. 389). Field notes will be a critical resource as transcription is more than documenting the conversation on paper, but more importantly involves decision-making on the part of the researcher to make analytical judgements as to what to present and focus on from the rich, thick data acquired during each interview (Bloomberg & Volpe, 2019). With easy access to these recordings, I will be able to experience the interview in its entirety multiple times.

Creswell and Creswell (2018) suggest member checking as one of the procedures in qualitative research methods to validate the findings by asking participants to review the final report or transcript. For this study, each participant will be provided a final transcript of the interview, along with themes, patterns, understandings, and insights from each participant to ensure responses are accurately documented (Patton, 2015).

Data Analysis

Data analysis in qualitative research consists of preparing and organizing data for analysis, then reducing the data into themes through coding, condensing the codes, and finally representing the data. Data management or organization of the data is a cornerstone of the process. Organization begins as each interview is transcribed. After transcribing each interview, I will summarize the responses and provide each participant with an opportunity to review their own transcript and ensure that the synthesis of the conversation is accurate and reflects the

participants' voice and meaning (Creswell & Creswell, 2018). After each interview has been accurately transcribed, I will read and reflect on it to discern its overall meaning. For instance, what general themes are emerging? What is the tone and depth of participant responses? Following organization, the analysis continues, reading the whole chunked and categorized data according to a list of codes, reading the transcript multiple times to identify key concepts while examining the data both during and after data collection to generate ideas regarding emerging themes and the relationships among these themes. Similar codes, whether these codes are expected, surprising, or perhaps of conceptual interest, would then be grouped into categories or themes. Once themes have been identified, a visual representation such as a table will be used to garner a better understanding of the findings.

Using more than one source of data following a similar convergence, the findings of this case study will be more convincing and accurate (Yin, 2018). Member checking to verify interviews were accurately transcribed and interpreted, field notes, interview results, and personal reflection will be triangulated to test for consistency and to ensure data is accurately reported (Patton, 2015).

Researcher Positionality

With more than 10 years of experience in distance education, the researcher experienced this disruptive event as the Coordinator of Online Learning and Department Chair for a rural Oklahoma community college. Along with this, the researcher serves on multiple committees locally and at the state level for advancement in technology and online learning. Finally, the researcher has been a facilitator for workshops locally, at the state level, and also at a national level to help instructors, instructional designers, and those in leadership positions better understand pedagogical and design strategies to create and improve online courses. The

researcher have an in-depth understanding of the event and the faculty under study. With knowledge of the event, the researcher seeks to further explore faculty experiences, yet adopts a flexible stance, and am open to change (Bloomberg & Volpe, 2019).

Delimitations

Delimitations are stated to clarify the boundaries of the study (Bloomberg & Volpe, 2019). The researcher's decision to limit the participants to faculty who teach in public community colleges was based on potential differences in faculty experiences due to the nature of community college education and the resources available to instructors in community colleges versus universities, such as support staff and technologies. The inclusion of only community college faculty limits the generalization of the findings to faculty who teach courses offered by community colleges.

The following delimitations are defined for this study.

1. Community college faculty who taught full-time for at least three years were considered in the study.
2. Community college faculty who were inexperienced with technology used to deliver courses in a remote and/or online learning environment were considered in this study.
3. Community college faculty who had little to or no desire to teach remotely and/or online were considered in this study.
4. Community college faculty who had limited access to professional development and/or resources prior to the rapid pivot to remote and/or online course delivery were considered in this study.

Limitations

The case study relies on individual interviews in which faculty will be asked to recollect experiences from the spring 2020 semester when COVID-19 necessitated the rapid transition to ERT.

The following are possible limitations of this study.

1. Self-reporting presents limitations as faculty may embellish responses which could potentially skew the data. The interviews also rely on faculty recall of their experiences, which may be interpreted differently now than before. Yin (2018) cites these as limitations of qualitative research.

2. The semi-structured interview questions asked by a novice researcher may limit findings though a team of experts in the field vetted the questions. Yin (2018) found that the researcher's confidence level influenced the data collection and analysis. The interview process is a skill that is developed over time. An interviewer with more experience would likely be able to elicit additional pertinent information and responses from participants using the same set of questions.

3. The small sample size likely does not provide enough information to generalize beyond the faculty who participated in the study. Having a small sample size is the norm for qualitative studies, and this limitation is commonly cited (Yin, 2018).

Ethical Assurances

Ethical assurances will be addressed in the study, beginning with the submission of the *Institutional Review Board (IRB)* (Appendix A) prior to the start of the study to garner approval from the University of Arkansas to conduct the study. The purpose of the study will be disclosed to participants using the *Informed Consent Form* (Appendix C), then reiterated to each

participant during the individual interviews. During the data collection process, the researcher will openly discuss the purpose of the study and express appreciation for participants' time and willingness to participate in the study. In reporting data, the researcher will report honestly to include multiple perspectives that may be contrary to the literature, use language appropriate for audiences of the research, and adhere to APA guidelines in publishing the work. As a final ethical assurance, the researcher will provide the complete analysis of each interview to each participant for member checking (Creswell & Poth, 2018).

Summary

This qualitative study aims to explore the experiences of community college faculty who self-identify as late adopters of technology and taught during and since the spring of 2020. In this case study, the researcher seeks to inform the study using a subgroup of full-time faculty employed by Oklahoma and Arkansas rural community colleges, who were teaching prior to the Spring of 2020 and have continued to teach in semesters moving forward. Further, responses from the interview questions seek to confirm that faculty who participated in the study also self-identify with the characteristics of late adopters as defined by Rogers (2003).

Using the expertise of COOs in Oklahoma community colleges and neighboring Arkansas community colleges to identify full-time community college faculty who taught three or more years, experienced the rapid transition to ERT, continued to teach, and self-identify as late majority or laggards in adopting technology as defined by Rogers (2003), the study will ensue.

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Appendix A

Case Invitation Email

Dear Colleague:

As a current faculty member who experienced the sudden transition to Emergency Remote Teaching (ERT) during the Spring 2020 semester, you have been selected by the Chief Online Officer (COO) from your institution to engage in a study, *Community college faculty experiences and change since the sudden transition to Emergency Remote Teaching (ERT).* The information gathered in this study will assist community college leaders to consider resources and support necessary to navigate semesters.

Multiple factors guide the selection of participants for this study and your input will be valuable to inform the study. Participation in the study will require an interview conducted and recorded using Zoom, scheduled at your convenience, and lasting approximately 1 ½ hours. After the recording has been transcribed, you will have an opportunity to review the transcript checking for accuracy and to be sure I have accurately interpreted your response for each question. All responses will be kept confidential and an alias will be used to ensure reporting result remain anonymous.

Please contact me by email or by phone at (918) 791-1336 with any questions. If you are willing to participate, please email me with days/times that are convenient for you. From there, we'll communicate by email to schedule the interview.

Respectfully,

Joy Bauer, Researcher

University of Arkansas, Doctoral Candidate
Northeastern Oklahoma A& M College, Coordinator for Online Learning

Appendix B

Informed Consent

Dear Colleague:

Thank you for accepting the invitation to participate in the study, *Community College Faculty Experiences: Change since the sudden transition to Emergency Remote Teaching.* This study is being conducted to inform community college leaders of faculty experiences in making the sudden transition to ERT, along with experiences in semesters that followed.

Your participation will include a recorded Zoom interview lasting no more than 1 hour scheduled at your convenience. After the recording has been transcribed, you will have an opportunity to review the transcript checking for accuracy and to be sure I have accurately interpreted your response for each question. All responses will be kept confidential and an alias will be used to ensure reporting result remain anonymous.

There are no known risks associated with the research, nor are there any benefits to the participant expected from the research project. There is no compensation or expense related to participation in the study. Per University of Arkansas guidelines, participants will remain anonymous and all information will be kept confidential. Information will be destroyed three years following the conclusion of the study.

Participation in this study is voluntary and you may withdraw from the study at any time. The signed consent form and the attached demographic information form may be signed and emailed back to me ahead of the scheduled interview.

Please contact me with any questions by email or by phone at (918) 791-1336. You may also contact my dissertation chair, Dr. Kenda Grover, kgrover@uark.edu. Please contact Ro Windwalker, the University's IRB Compliance Coordinator, at (479) 575-2208 or by email at irb@uark.edu.

Respectfully,

Joy Bauer, Researcher
University of Arkansas, Doctoral Candidate

Date: _____

Participant Signature: _____

Participant Profile Questionnaire

Gender: (Circle)	Male	Female		
Age: (Circle)	22-30	31-40	41-50	51 or above
Educational level (Circle highest degree completed)	Associate's	Bachelor's	Master's	Terminal Degree
Are you considered a full-time instructor?	Yes No			
Total Teaching Experience	_____ Years			
Online Teaching Experience	_____ Years			
What year and semester did you begin teaching remotely or online?				
Since the pandemic have you continue to teach remotely or online?				

Appendix C

Interview Protocol

Interview Date: _____

Interviewee: _____

Research Question: How did community college faculty who only taught face-to-face classes prior to the COVID-19 Pandemic experience the sudden transition to remote instruction?

1. What was your perception of online teaching and learning before you were mandated to make this change?
2. How do you feel about change?
3. How would you describe your teaching methods prior to transition to Emergency Remote Teaching (ERT)?
4. How would you describe your desire to use technology prior to the transition to ERT?

    -What technology were you using prior to the mandate make this change?
5. Describe your thoughts and feelings as you were asked to make the change to ERT?
6. As you navigated this rapid change, what support was provided?

    -Did you find that you needed additional support?
    -If so, describe support that would have been helpful.
7. What positive experiences related to technology did you experience in the sudden transition to ERT?
8. What challenges related to technology did you experience during the sudden transition to ERT?
9. What new or rarely used technology have you continued to use in semesters following the rapid transition to remote instruction?

-Have you used this technology in the same manner as you did during ERT?
-Have you used this technology in a new or different way in the semesters following the pandemic?

10. Having experienced the rapid transition to ERT, how have you changed as an instructor?

11. Has your perception of online teaching changed since this experience?

12. Has this experience encouraged you to continue using this technology?

13. Are there other things you would like to share about this experience?